# Part 2: Strategy and Targets

# 4 The LTP strategy

This chapter sets out our transport strategy for Cambridgeshire, and demonstrates how the shared priorities, quality of life and the environment lie at the heart of this strategy. It examines the evolution of transport strategy within the County Council, highlights current challenges, and describes how the LTP strategy has been shaped by consultation. Finally, the chapter describes the ways in which we have tested the strategy. Subsequent chapters give more detail about the way in which the strategy links to the Shared Priorities for Transport and to our Asset Management programme.

## The LTP strategy

The Local Transport Plan (LTP) strategy is one element of our overall strategy, which is set out in the Long-Term Transport Strategy (LTTS). The LTP strategy forms the basis of our policy implementation programme and our objectives and targets during the period 2006–11. It has been developed to underpin the delivery of our longer-term objectives while simultaneously addressing medium-term transport issues. To achieve this, the strategy aims to:

- meet the overall aims and objectives of the LTP to maintain and enhance quality of life and of the environment
- provide a plan of action to deliver our LTP objectives and the Shared Priorities for Transport
- enhance accessibility through individual accessibility action plans
- complement and provide a local focus to the Regional Spatial Strategy and Regional Economic Strategy, and
- integrate land-use planning with transport through the shared aims and objectives.

Both land use and transport planning can contribute to delivering these aims. Smarter Travel Management measures will also have a key role, and will become an increasingly important way to address traffic growth.

To achieve these aims the strategy uses two transport tools:

- to widen choice for transport users, and
- to manage demand for transport.

Due to the diversity of the county there is a need to apply these two tools differently depending on the area under consideration. To this end, we have identified three strategy areas. These are:

- transport corridors
- urban areas and their hinterlands
- rural areas

The elements in this strategy development are shown in Figure 4.1. Figure 4.2 shows the transport corridors and the urban and rural areas. The basis of the strategy is to adopt complementary approaches to the achievement of the shared priorities and our objectives within our three strategy areas, and to develop common programmes and schemes that cut across areas. The two transport tools are applied to the three strategy areas as follows.

### Transport corridors

#### Widening choice

- Seeking to run bus services to frequencies of 15 minutes or better.
- Providing bus information through multiple delivery media to reach as many sectors of the community as possible.
- New high-quality transport schemes, such as the Cambridgeshire Guided Busway
- A new rail interchange at Chesterton in Cambridge.
- Enhanced coach facilities and cycle/pedestrian links at interchanges/Park & Ride sites.

#### Managing demand

- Speed reduction measures where appropriate.
- An enhanced road safety programme where necessary.
- An enhanced road maintenance programme along non-principal roads.
- Measures to tackle congestion at the worst bottlenecks (for example, along the A141 and the A142/A10).
- Bus priority measures to improve public transport journey times.

### Urban areas and their hinterlands

#### Widening choice

- Improved, more frequent and more accessible bus services.
- Improved interchange facilities between bus and rail.

> The best thing about the plan is its comprehensive and integrated nature, which deserves to be fully supported.
> *LTP consultation response*

- An enhanced network of cycle and pedestrian routes both in towns and linking to surrounding villages and countryside.
- Encouraging the provision of more accessible taxis.
- Enhanced maintenance of cycleways and footways.
- Improved pedestrian facilities.

**Figure 4.1 LTP strategy development**

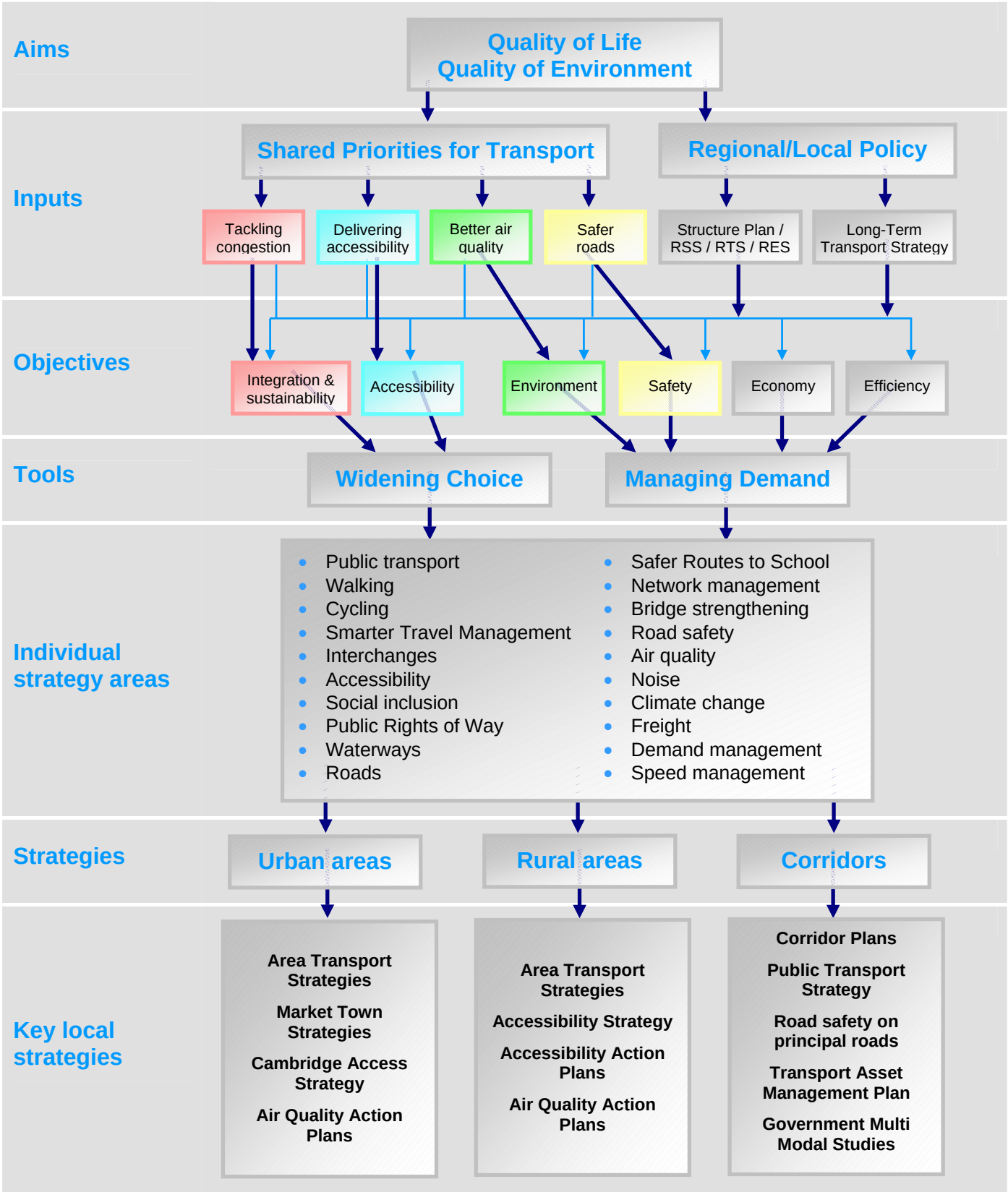
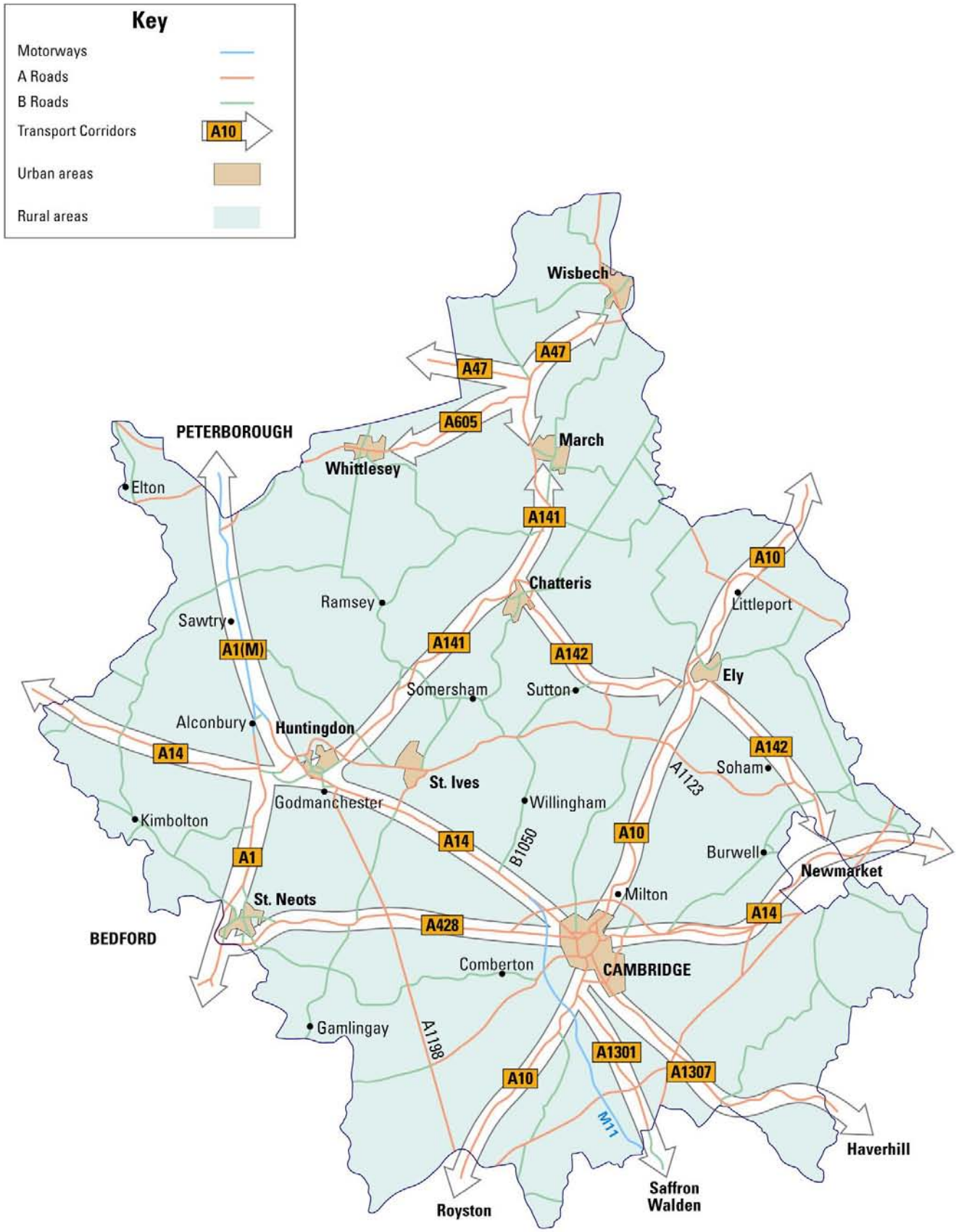


**Figure 4.2 Transport corridors, urban and rural areas in Cambridgeshire**

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### Managing demand

Policy P8/6: A network of high quality bus and community transport services.

*Cambridgeshire and Peterborough Structure Plan*

- Road safety measures.
- Traffic calming.
- Speed reduction measures.
- Opportunities for reallocation of road space.
- Environmental enhancement.
- Parking policies to restrict parking through fiscal or physical regimes will be linked to the provision of public transport where high levels of access by more sustainable modes of transport exist.
- Measures to keep unnecessary traffic out of historic town and city centres.
- Other methods of demand management.

A key element of delivering the LTP strategy for urban areas and their hinterlands will be through Market Town Strategies. These are reported in the following pages.

## Rural areas

In the rural areas we will seek to reduce the growth in car use by improving accessibility through the provision of enhanced public transport links to frequent services. At the same time, we recognise the importance of the car and community transport services in catering for many journeys that could not otherwise be made.

### Widening choice

- Countywide accessibility strategy.
- Individual accessibility action plans.
- The development of the public transport system to include demand responsive public transport, shared taxis, community transport and conventional bus services; where appropriate these will connect to the main corridors where frequent and reliable public transport will be available.
- New interchanges along the corridors; these will include bus shelters with improved information, facilities for cycle parking, lay-bys for drop-off points and better pedestrian facilities.
- Improved walking and cycling facilities connecting to the corridors.

### Managing demand

Vision: A sustainable environment

*Cambridgeshire County Council Best Value Performance Plan*

- Safety measures.
- Traffic calming and speed reduction measures.
- Improved non-principal road maintenance.

# Influences on and strategies within the LTP

## Development Plan policies

The Cambridgeshire and Peterborough Structure Plan provided the framework of transport measures contained within the LTP that integrate with new development. Essential elements include the Guided Busway scheme between Cambridge and Huntingdon, high frequency public transport services along key corridors, and a new station and interchange at Chesterton. Further details regarding the Structure Plan are contained in Chapter 1.

The Structure Plan will be replaced by the emerging Regional Spatial Strategy (RSS), and is also influenced by the East of England Regional Economic Strategy. Both of these overarching strategies contain elements aimed at improving the region's transport system. Chapter 1 outlines how the LTP strategy will contribute towards regional priorities. Chapter 3 provides information on regional indicators and targets.

## The LTTS and Strategic Environmental Assessment

The LTTS reflects development plan policy, and a key role it has played in the development of our LTP strategy is in the modelling of options to cater for the transport demand that we will face in the future. Further detail of this option testing can be found below. The modelling informed and validated the strategies included in this LTP, and highlighted the need to consider and develop further strategies for managing demand beyond those currently within the scope of this LTP. Our ongoing work in developing the LTTS and in undertaking study work as part of the Transport Innovation Fund process will develop these strategies, and will lead in time to an evolution in LTP strategies and programmes.

The Strategic Environmental Assessment of the LTP also considered the further schemes and programmes recommended by the LTTS, and again, confirmed in most cases that the environmental impacts of the strategies within the LTP are largely positive or neutral, particularly compared with the other strategy options considered.

## The Shared Priorities for Transport

The Shared Priorities for Transport are improving accessibility and road safety and reducing the problems of congestion and pollution. Delivering these priorities lies at the heart of our overall transport strategy as demonstrated in Figure 4.1.

We have not sought to rank the shared priorities as they all have a role to play in achieving our overarching aims and objectives. However, the programme of schemes contained within this LTP are geared more towards tackling congestion and improving air quality and road safety. This is because the funding coming from the LTP process is transport capital rather than revenue, and measures aimed at reducing congestion and improving road safety tend to be capital intensive, while a greater proportion of the schemes aimed at improving accessibility are likely to be revenue funded. Chapter 12 sets out the LTP programme.

> Objective: Good access to services.
> *South Cambridgeshire Community Strategy*

The sections below on accessibility, air quality, congestion and safer roads briefly set out the main issues surrounding each of the shared priorities and outline the approach we will take to address these issues.

### Accessibility

We aim to reduce social exclusion by ensuring people can get to key services at a reasonable cost, in reasonable time and with reasonable ease. **Appendix 4** of the LTP contains the Accessibility Strategy for Cambridgeshire, including a programme for improving accessibility within the county. The approach utilised to formulate the Accessibility Strategy was twofold; firstly a quantitative mapping exercise was carried out, and then based upon the quantitative information, a qualitative exercise was completed. The outcome of these exercises was the identification of nine wards and three population groups that have poor accessibility, and are being incorporated into Accessibility Action Plans (AAPs). The Accessibility Strategy sets a timeframe for tackling the prioritised wards and themes over the LTP period. The five LSPs in Cambridgeshire are leading on the production of AAPs for the geographical areas that we have identified, and we are in the process of setting up groups to address the themes. For example, we have set up an Older People's Forum to address the accessibility problems of this group. Chapter 5 gives further detail of the priority areas and themes that are being taken forward in our AAPs.

### Air quality

Road transport is one of the main sources of air pollution, accounting for over half of the total emissions of nitrogen oxides and fine particles ($PM_{10}$). The current Air Quality Management Areas (AQMAs) and likely future AQMAs in Cambridgeshire are listed in Figure 4.3.

**Figure 4.3 Current and Likely Future AQMAs**

| District | AQMA/Possible future AQMA | Pollutant | Current status |
|---|---|---|---|
| Cambridge | Cambridge city centre | $NO_2$ | **AQMA declared in August 2004.** |
| East Cambridgeshire | No AQMAs likely to be declared. | | |
| Fenland | Lynn Road, Wisbech | $SO_2$ | *Current AQMAs. Not transport related.* |
| | | $PM_{10}$ | |
| | Lynn Road / Churchill Road, Wisbech | $NO_2$ | **AQMA declared in April 2006.** |
| Huntingdonshire | Huntingdon town centre and A14 | $NO_2$ | **AQMAs declared in November 2005.** |
| | St. Neots town centre | $NO_2$ | |
| | Brampton (A1 / A14) | $NO_2$ | **Transport related AQMAs likely to be declared** |
| | Fenstanton (A14) | $NO_2$ | |
| | Five additional areas on A1 and A14 corridors | $NO_2$ | Detailed assessments undertaken. AQMAs may be declared. |
| South Cambridgeshire | Bar Hill (A14) | $NO_2$ | Possible future AQMA |
| | Girton (A14) | $NO_2$ | **Transport related AQMAs likely to be declared** |
| | Impington (A14) | $NO_2$ | |
| | Histon | $NO_2$ | 'Hot spots' being monitored. AQMAs unlikely to be declared. |
| | Sawston | $NO_2$ | |

Cambridge City Council has agreed an Air Quality Action Plan (see Chapter 6 and **Appendix 10**), and work is ongoing to plan the specific interventions, and the monitoring and assessment regime that is required. Action plans are being drawn up by the Huntingdonshire and Fenland District Council for three new AQMAs, and the County Council is working with the districts to identify transport measures that can be implemented to help reduce transport's contribution to the air quality problems without simply moving the problem elsewhere.

Working in partnership with the five District Councils forms a key part of our approach to reduce transport emissions and improve air quality. We aim to improve air quality by increasing the number of trips made by cycle or on foot, encouraging the use of public transport and reducing congestion. We are also working closely with the

districts where other specific issues are being identified as contributing to air pollution. Further details of this are contained in Chapter 6.

### Congestion

The substantial level of planned growth within the county will lead to increased travel demand (see Chapter 2) and thus increased congestion unless carefully managed. Therefore, we will encourage the use of sustainable modes of transport and aim to reduce private car use where alternatives are available. Additionally, we aim to make the most efficient use of existing infrastructure and will manage the road network with regard to the Traffic Management Act 2004. We will continue to manage car use to encourage sustainability. The approach we will take to tackle congestion will particularly focus on improvements to public transport as part of the Kickstart Initiative. Improvements to walking and cycling facilities and smarter travel management will also play a major role. Further detail is set out in Chapter 7.

### Road safety

In the last ten years the number of deaths and serious injuries in Cambridgeshire has fallen by 20%, while traffic has increased by 30% during the same period. Through our road safety strategy we aim to reduce further the number of casualties in Cambridgeshire. We will concentrate on improving road safety at sites with high accident rates by implementing new schemes. In addition, we aim to improve overall road safety through a programme of education, publicity and training. By improving road safety across the county we also aim to improve quality of life, reduce the level of congestion caused by road traffic accidents and benefit the economy.

## Sub-Regional and cross boundary working

As noted in Chapter 1, working with neighbouring local authorities is an important part of the approach set out within this LTP. There are issues both at the strategic (for example the Growth Agenda with authorities in the London – Stansted – Cambridge – Peterborough growth area) and local (for example, motorcycle safety on the B645 into Northamptonshire) level that require a joint approach and shared solutions.

**Market Town Transport Strategies**

As part of a commitment within our first LTP and in recognition of the uniqueness of the market towns, strategies have been completed for March, Ely, Huntingdon and Godmanchester, St. Neots and Wisbech. Additionally, a strategy for St. Ives is being developed. The Market Town Strategies support Structure Plan Policy P3/1, which promotes integrated town centre strategies. The full strategies set out transport programmes for the market towns aimed at achieving LTP objectives. They are developed in partnership with the local District, Town and Parish Councils, and neighbouring councils, enabling close integration of land-use planning and transport measures with local interests. The strategies can be found in Appendix 8.

The strategies have proved very successful, with a high level of response to questionnaires contained within public consultation leaflets. Many schemes have been developed following input from local stakeholders and residents, including:

- measures to promote public transport involving partnership working with the bus operators; these include improved services, bus information and infrastructure such as improved bus stops and shelters
- significant traffic calming and safety measures in all of the market towns
- the creation/improvement of cycling and walking networks, and
- measures to support tourism such as pedestrianisation and improvements to the streetscape.

Above all, the Market Town Strategies have brought benefits to our overall strategy by introducing measures to encourage more sustainable and integrated transport. In addition to the health and environmental benefits, this will help to reduce congestion both in the market towns and (given commuting patterns) around Cambridge, and improve accessibility.

## Local strategies

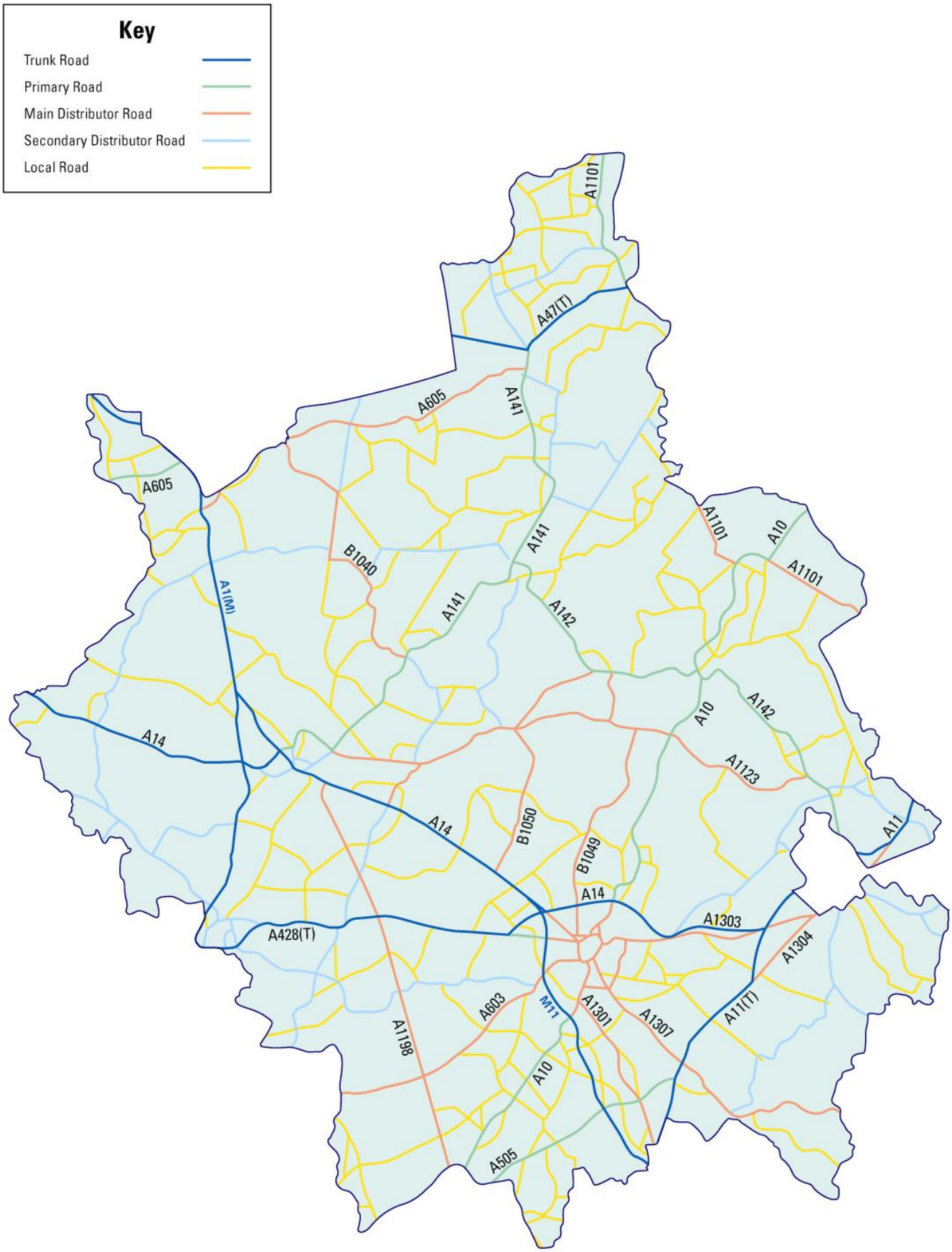
Nested under the overall strategy are a number of more local strategies covering specific themes, topics or areas. These are shown in Figure 4.1, and are aimed at providing greater focus to the overall strategy in particular geographical and topic-based areas. These strategies include:

- Corridor Plans (see throughout Chapters 5, 6, 7, 8, 9 and 10)
- Area Transport Strategies including Market Town Strategies (see Chapter 7 and **Appendix 8**) and the Cambridge Access Strategy (see Chapter 7)
- Accessibility Strategy and emerging Accessibility Action Plans (see Chapter 5 and **Appendix 4**)
- Public Transport Strategies (see **Appendix 6**)
- Road Safety Strategies (see Chapter 8 and **Appendix 7**)
- Air Quality Action Plans (see Chapter 6 and **Appendix 10**)
- Transport Asset Management Plan (see Chapter 10)

## Road hierarchies

We have established a road hierarchy based on traffic flows to better reflect the usage of the highway network. The hierarchy is shown in Figure 4.4. We will manage the roads in accordance with this hierarchy and make the best use of all available approaches including technological advances, particularly for safety schemes in urban areas.

**Figure 4.4 Road hierarchy in Cambridgeshire**



We will use this approach to determine our road maintenance programme for principal roads, as roads with higher traffic flows will deteriorate faster than those will lower flows. However, for road maintenance we will also target roads in rural areas that are often less well used but still provide crucial access to local communities. Rural roads in need of maintenance for this reason will become apparent as part of the accessibility planning process. Therefore the road maintenance programme will not always follow the corridor approach (see Chapter 10).

### User hierarchies

The user hierarchy reflects the three areas within our strategy (transport corridors, urban areas and their hinterlands, and rural areas), by looking at each of them. The modes of transport are:

- public transport
- cyclists
- drivers with disabilities
- pedestrians, including people with disabilities and public transport users
- Powered two-wheelers
- cars, and
- commercial vehicles – recognising the importance of freight and deliveries to the economy.

The user hierarchy matrix is shown in Figure 4.5. This matrix is a guide for considering different priorities for modes within the three main strategy areas, with modes given highest priority at the top. It is not intended to be exclusive or definitive. It does not mean, for example, that because cycling is high in the matrix within urban areas, it will be promoted to the exclusion of other modes.

**Figure 4.5 User hierarchies by strategy areas**

| Transport corridors | Urban areas and their hinterlands | Rural Areas |
|---|---|---|
| Public transport | Pedestrians | Pedestrians |
| Cyclists | Cyclists | Cyclists |
| Pedestrians | Public transport | Public transport |
| Drivers with disabilities | Drivers with disabilities | Drivers with disabilities |
| Commercial vehicles | Commercial vehicles | Cars |
| Cars | Powered two-wheelers | Commercial vehicles |
| Powered two-wheelers | Cars | Powered two-wheelers |

## Testing our strategy

### How we tested our strategy

We have subjected the new strategy and programme to a number of independent tests and these audits have refined our strategies accordingly. These include:

- Testing of options through the Long-Term Transport Strategy
- Consultation with the public, Local Strategic Partnerships and other key stakeholders
- A Strategic Environmental Assessment (SEA), including assessment of the LTP against alternative strategies
- A health assessment
- A sustainability audit

### Analysis of options

To assess the potential contribution of different types of measures to our Long-Term Transport Strategy (LTTS), a series of scenarios were developed. The scenarios consider a range of options, including, making better use of existing infrastructure and managing demand for transport services.

The four scenarios were.

**Scenario 1 –** Intensive walking and cycling improvements (plus low key public transport improvements)

**Scenario 2 –** Intensive public transport improvements (plus low key walking and cycling improvements)

**Scenario 3 –** Highway improvements (plus low key public transport, walking and cycling schemes)

**Scenario 4 –** Demand Management (a range of measures plus intensive walking, cycling and public transport improvements)

Modelling was used to test the four scenarios against a base case to compare the impact on overall modal share. This showed that:

- Scenario 1 would only result in a 0.5% increase in walking and cycling modal share, and a 0.6% increase in public transport
- Scenario 2 would lead to an increase of 1.3% in public transport modal share
- Scenario 3 would result in a 0.3% reduction in the modal share for car trips
- Scenario 4 would bring about a 3.2% increase in non-motorised transport, a 5.2% increase in public transport modal share and an 8.4% reduction in the mode share for private car.

The scenarios were then tested against the six LTP objectives (as detailed in Chapter 3). For the purposes of the appraisal of the four scenarios, a series of sub-objectives were developed. A scoring system was then used, to evaluate the impact against each sub-objective. From this, key principles for transport within the county were highlighted. These include the following.

- Intensive walking and cycling improvements, particularly in Cambridge and the market towns.
- High intensity public transport improvements (segregation, interchange, Park & Ride facilities and junction improvements.
- Targeted improvements to the highway network (where there is no viable alternative).
- The opportunity to deliver significant further improvements through the implementation of demand management measures.

These principles reflect the measures in scenario 4, which demonstrated the highest increases in sustainable modes of transport alongside the largest reduction in private car modal share.

This appraisal process has been used to determine the detail of the Long-Term Transport Strategy. In addition, these key principles underpin many of the policies and schemes contained within this Local Transport Plan. Figure 4.6 gives examples of schemes and initiatives that reflect these principles.

**Figure 4.6 LTP schemes consistent with key principles of LTTS**

| Principles from scenario testing | Measures within the LTP |
|---|---|
| Intensive walking and cycling improvements, particularly in Cambridge and the market towns | • New cycling and walking routes in the market towns as part of the market town transport strategies<br>• The Cambridge Core Traffic Scheme<br>• Cycling improvements in Cambridge |
| High intensity public transport improvements (segregation, interchange, Park & Ride facilities and junction improvements | • New bus lanes in Cambridge e.g. Milton Road<br>• Corridor improvements<br>• Cambridgeshire Guided Busway |
| Targeted improvements to the highway network (where there is no viable alternative | • Papworth Everard Bypass |
| The opportunity to deliver significant further improvements through the implementation of demand management measures | • A study as part of the Transport Innovation Fund to investigate options for a package of measures including public transport improvements, infrastructure improvements and demand management<br>• Cambridge Core Traffic Scheme |

The Scenario testing set out above demonstrates how the council has considered a range of options to best deliver the four shared priorities and LTP objectives, and shows how our approach provides better value for money by making better use of existing infrastructure and managing demand for transport services. Chapters 5-10 set out these proposals in more detail.

Further details of the scenario testing and the Long-Term Transport Strategy can be found in **Appendix 1**.

They show that the LTP is robust and is the most effective way of meeting the challenges we face. The following sections give details of the consultation, the SEA and the Sustainability audit.

## Consultation

The views and comments of local communities have been of paramount importance to the shaping of our second LTP, and our extensive public consultation programme has allowed us to engage with all parties. We have recognised the contribution of public input into the creation of all strategies developed for Cambridgeshire and further, many of the documents that have informed the LTP have also undergone extensive public and stakeholder consultation to ensure that the LTP takes into account public preferences. We have an excellent record of consultation on key issues affecting transport. This has consistently shown high levels of support for our policies, and moreover has helped form our LTP.

Widespread public consultation was carried out as part of our interim LTP 2004–11, and this played a vital role in the shaping of the plan. In discussion with the Department for Transport it was agreed that this consultation remains valid for this LTP, as the strategy and objectives are the same. The consultation provided a real opportunity for local communities and interested parties to influence schemes, policies and programmes in the LTP. Around 240,000 consultation leaflets including questionnaires were distributed across the county. Nineteen staffed exhibitions and over forty static exhibitions were held at various locations, and leaflets were available at doctors' surgeries, dentists' surgeries and libraries. Regular press releases promoting the consultation were published and several stakeholder workshops were held. The questionnaire was available on the Cambridgeshire

County Council Internet site and we used innovative consultation techniques, including mobile phone texting for responses and comments. In total we received 5,400 responses to the consultation. A large proportion of these responses were from the harder-to-reach 16 to 26 age group. Results of the consultation showed that:

- 88% of respondents supported our overall aims and objectives
- 94% support our proposals for public transport
- 87% supported our proposals for improving walking facilities, and
- 92% supported our proposals for improving safety.

Comments received on the strategy through workshops, roadshows and individual letters also showed support for the overall principles behind the strategy. Furthermore, this qualitative consultation brought about ways by which the strategy could be shaped and strengthened. As a result of these comments, we made the following changes.

- We placed greater emphasis on public transport improvements, particularly accessibility in rural areas.
- We focused measures on reducing congestion and improving safety.
- We revised and added to the LTP priorities to reflect public opinion (see Chapter 3).
- We included a number of new schemes within the programme.

Comprehensive details of the consultation, and how it influenced and shaped the LTP can be found in **Appendix 2**.

Complementing the large-scale public consultation, we have conducted smaller scale, more focused consultation with local stakeholders, including bus operators and voluntary groups, to further develop our strategies and policies. This approach allows us to gain more informed responses to consultation and provides the opportunity to build on existing partnerships with local stakeholders, and also helps to maximise support for LTP proposals. For example, widespread consultation on the Rights of Way Improvement Plan was undertaken with key parties to gain views on current and future countryside access provision; and it was only following public consultation on the Ely Market Town Strategy, that the need for a southern bypass emerged. With regard to accessibility, a series of meetings were conducted to examine how this issue should be best addressed. We consulted with, among others, the youth parliament, the older people's forum, representatives from socially excluded groups and those with disabilities.

Another key element in developing the LTP has been the Local Strategic Partnerships. One aspect common to all of these partnerships is that each has a transport and access group, with representatives from the County, the District, the health service, education providers, housing groups, voluntary sector, the police and transport operators. We have consulted extensively with these groups during the development of the LTP and they have played an important role in shaping this final document.

Eleven roadshows took place in summer 2005, in Cambridge and the Market Towns to update the public in terms of the strategy and proposals contained within this LTP. Each roadshow also involved the promotion of sustainable transport, Park & Ride and key road safety issues, in addition to raising the profile of transport options across the county. Display boards, leaflets, road safety demonstrations and a competition to win a bicycle were among the means of promotion used. Three of the roadshows, in Haverhill and Newmarket in Suffolk and Royston in Hertfordshire jointly promoted the LTP measures of the relevant authorities. These events received radio, television and newspaper coverage, and helped ensure the public were well informed of the development of the LTP strategy and programme and additionally, had another opportunity to comment on our proposals.

Objective: To reduce the environmental impact of travel and limit the growth of road traffic.

*South Cambridgeshire Local Plan*

Owing to our high level of consultation, we have produced an LTP with public ownership and will continue to keep the public aware of our progress, achievements and future plans.

## Strategic Environmental Assessment (SEA)

We have undertaken a Strategic Environmental Assessment of this LTP, which also assessed the major measures recommended in the LTTS. The Environment Report of the SEA is included in **Appendix 14**, and details of how the SEA was taken account of in the production of this LTP can be found in Chapter 9.

## Health Assessment

During the preparation of our interim LTP, the Cambridgeshire and Peterborough Public Health Network carried out a Health Review of our first LTP. The health assessment identified certain areas for improvement, including the following.

- Further schemes to reduce traffic congestion in Cambridge city centre
- Continuation and enhancement of schemes to improve cyclist and pedestrian safety
- Further expansion and co-ordination of community transport
- Further measures to reduce traffic speed in villages and on rural roads

In response to these recommendations we will:

- Extend the core traffic scheme and continue to reduce traffic congestion in Cambridge city centre

- Introduce further measures to improve safety for cyclists and pedestrians as part of the market town strategies and the core traffic scheme
- Continue to support community transport schemes
- Implement more speed reduction measures in residential areas of the county

### Sustainability Audit

As part of our interim LTP we conducted a sustainability audit to ensure that the LTP sets out a sustainable strategy for transport in the county. The audit provided useful challenges and recommendations to influence the LTP strategy development process. The sustainability audit has now been reconsidered as part of the Long-Term Transport Strategy for Cambridgeshire, which contains a large proportion of the programme that was set out in the interim LTP. Additionally, parts of the audit have fed into, and since superseded the SEA. The sustainability audit can be found at www.cambridgeshire.gov.uk/transport/strategies/local/LTP+2004+to+2011.htm

## Conclusion

This chapter has shown that the LTP strategy is widely supported and that it is the most effective way of meeting the shared priorities and LTP objectives, thus helping to maintain and enhance the quality of life and the environment. Assessments of the strategy have shown that it will bring benefits at a local level in delivering all of the Shared Priorities for Transport. An SEA has indicated that the strategy is on course to be effective in preserving the quality of the environment. Such benefits will be essential if we are to meet the regional priorities for Cambridgeshire to encourage economic growth in a sustainable fashion while addressing national issues of enhancing accessibility and social inclusion.

Chapters 5 to 8 demonstrate how individual strategies contribute towards the achievement of the shared priorities of accessibility, air quality, congestion and road safety. These chapters also discuss the relevant indicators and targets. Chapter 9 focuses on quality of life issues, while Chapter 10 focuses on asset management. Almost all of our policies contribute to more than one of the shared priorities; therefore we have altered the emphasis of each strategy to demonstrate its importance to the different shared priorities.

All individual strategies were reviewed as part of our interim LTP to ensure that they contribute to meeting our objectives. For the revised LTP we have updated our cycling and pedestrian strategies in order to take account of growing concerns of accessibility and social exclusion. Our remaining strategies are performing well and we are continuing with our present approach. In all cases we have prioritised our programme to reflect the importance of the shared priorities and the scale of the challenge we face.

# 5 Accessibility

## Introduction

Improving accessibility is a central principle of our overall strategy, and is integral to meeting our aims and objectives, particularly those related to quality of life. People's ability to access employment, education, health care, shopping and other opportunities can significantly impact on quality of life and life chances such as employment and learning.

Delivering accessibility benefits contributes significantly to the achievement of our other Local Transport Plan (LTP) objectives and the Shared Priorities for Transport. Our work on accessibility accords with and helps to deliver our rural and corridor strategies. But in bringing together our work on transport with the work of our partners in other areas such as education and health, our approach to improving accessibility goes much further than we could have achieved alone in addressing the problems of ease of access to services in many areas of the county.

The subsequent sections set out how the County Council is taking forward accessibility planning, and outline the approach for community transport, private hire vehicles and supported bus services.

## Accessibility planning

### Background

The 2003 report by the Social Exclusion Unit, *Making the Connections,* set out the relationship between transport, accessibility and social exclusion. The report identifies five points as the main barriers to accessing services.

- The availability and physical accessibility of transport.
- The cost of transport.
- Services and facilities being located in inaccessible places.
- Perception of safety and security when travelling.
- Lack of travel information and perception of travel.

The report emphasises the importance of working in partnership with local government sectors and other organisations in order to increase access to key services. The approach we have taken to improve accessibility in Cambridgeshire reflects the findings of the Social Exclusion Unit report – in particular the importance of working in partnership with many organisations, as no single sector can reduce social exclusion on its own, making a multi-agency approach necessary.

Government guidance on accessibility planning gives local transport authorities the responsibility for producing and implementing an accessibility strategy for their area. It stated that a strategy framework must be produced by July 2005, with the final strategy, including accessibility action plans that contain measures to improve accessibility in priority areas, to be completed by March 2006.

Accessibility planning focuses on promoting social inclusion by tackling the accessibility problems experienced by those in disadvantaged groups and communities. The key to this is working in partnership with many organisations, including the health service, the local education authority, jobcentre plus and social services, to ensure a multi-agency approach. Government guidance recognises that accessibility is not always a transport issue – for instance, it could be that a person perceives it is not safe to travel at night, thus the travel environment needs to be enhanced. Therefore, the commitment of many organisations to work in partnership with us is vital to improving accessibility within the county.

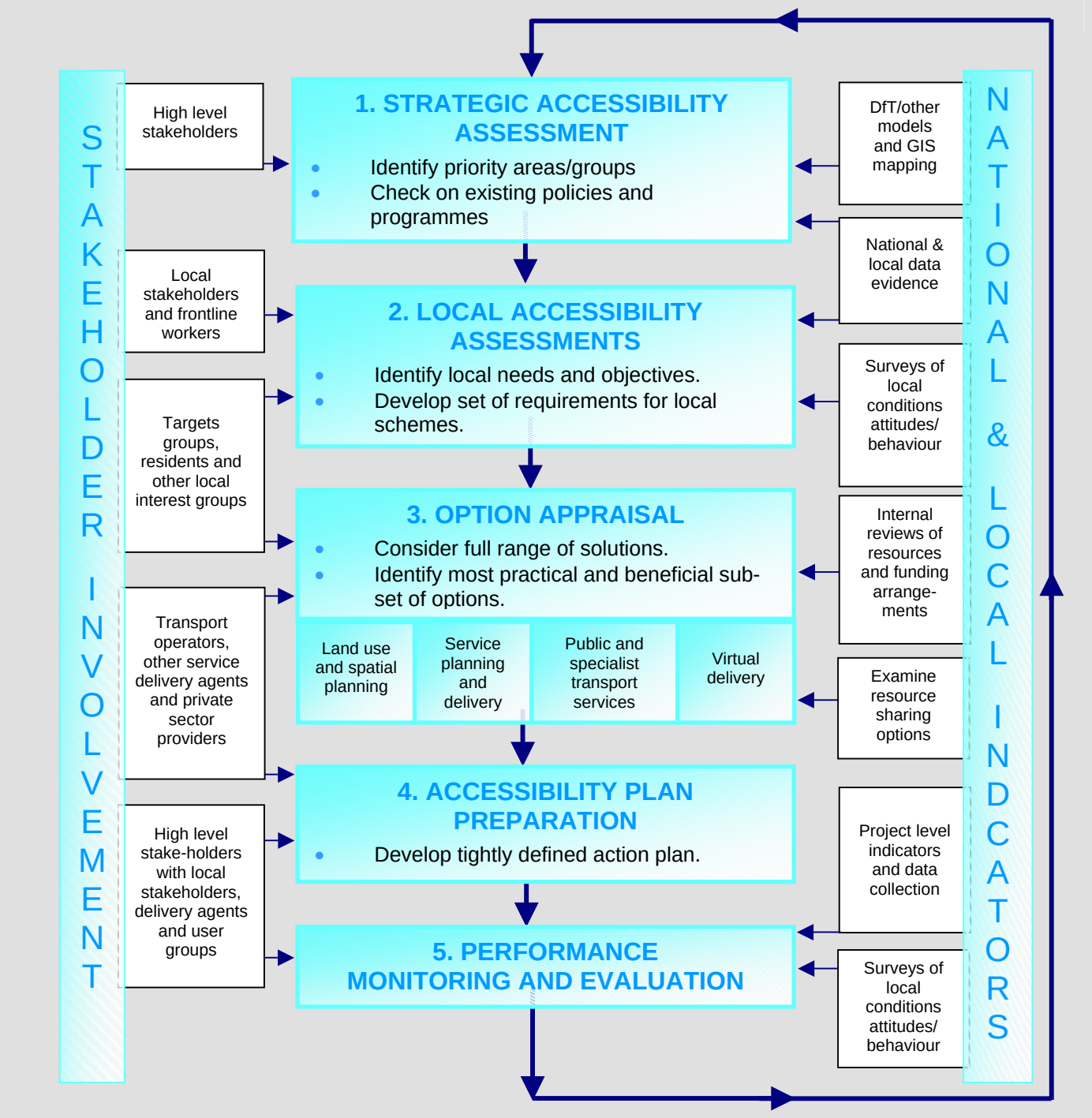
Accessibility planning involves a five-stage process, which is illustrated in Figure 5.1. This demonstrates work carried out to date and how the process will be taken forward during the lifetime of this LTP.

### Accessibility Strategy Framework and progress since July 2005

Cambridgeshire's Accessibility Strategy Framework, submitted in July 2005, was developed in partnership with key stakeholders across the county and with transport authorities outside of the county. The document set out the vision for Cambridgeshire, and contains objectives that are fully integrated with the six LTP objectives (see Chapter 3). It outlined how the strategy framework was developed with our partners, how it integrates with our and partner policies, and implications for the LTP and wider policies. It also detailed our accessibility targets, how we have worked with our partners to date, and how we will continue to work with them in the future.

We were extremely pleased at the willingness and enthusiasm with which our partners embraced the accessibility agenda and as a result of this we made a considerable amount of progress on the strategy by the time we submitted the framework in July 2005. It was therefore anticipated that there wouldn't be any further significant changes to the strategy for the final LTP. This has been the case, however a considerable amount of work has been going on since July by the various LSP groups towards producing action plans for each of the priority areas.

**Figure 5.1 Five-Stage accessibility planning process**




The first of these has already been completed by the Fenland LSP Transport and Access Group; the joint action plan for the wards of Wisbech St Mary & Parson Drove and Manea is included in **Appendix 4**. In summary, the following work has been undertaken since July 2005:

- **Fenland** The Fenland LSP Transport and Access Group initially drew on the wealth of existing research that there was for the area. There were a number of parish plans already drawn up for the area which highlighted accessibility issues. The LSP group, along with the East Cambridgeshire LSP group had already commissioned a piece of research by the Cambridgeshire Rural Transport Partnership to explore the provision of transport to services within the two districts and the conclusions from this study have also been used to inform the evidence base. Despite this wealth of information, there were however a couple of areas where the group felt that there were gaps in knowledge, therefore a member of the LSP group undertook some more targeted research which again has been used to supplement the evidence base. Using all the information available, the group has now produced an action plan to take forward this work.

- **Huntingdonshire** In this group, there wasn't as much existing local evidence as there was in the Fenland wards, therefore the group decided to approach the local accessibility assessment in a slightly different way. A series of meetings has been held in the priority wards with county, district and parish councillors. The purpose of

this was to get an initial feel for the particular issues in each ward and a list of suggested further contacts. Huntingdonshire District Council have been able to dedicate a member of staff to doing further detailed research as a result of the information gained at these meetings, to further supplement the evidence base. In addition, the Huntingdonshire LSP Transport and Access Group have been in discussions with an organisation called the Cambridgeshire and Peterborough Council for Voluntary Youth Services (CCVYS) to scope out a project which would engage with young people in one or more of the priority wards in Huntingdonshire. The initial meetings in the wards identified a common problem with young people having to rely on parents to take them to social and leisure activities, as well as any activities that are run after school, therefore this project would be particularly relevant. The group are also investigating the feasibility of forming a brokerage scheme to enable community transport providers to become more sustainable and in turn to fill some of the gaps in the traditional bus network.

- **South Cambridgeshire** This group decided that due to a lack of existing evidence that could be drawn on, they would hold an initial public meeting in the ward of Balsham to identify what local people thought the key problems were. Although the meeting was well attended and a lot of useful information was gathered it was obvious that some sections of the community were not represented, particularly young people and people with young children. With this in mind, a further piece of research was commissioned by the group to try and fill this gap so that the action plan could be better informed.

- **Older people, Young people and Lone parents** While there are not going to be specific action plans for these themes, work has been progressing to set up an older people's forum which will ensure older people are properly considered in not only the accessibility strategy, but also in other County Council policies such as the LTP, market town transport strategies and any other strategies that could affect older people. The terms of reference are still being finalised but the forum has been initiated by the Head of Adult Services at the County Council and will have representation from the LTP team, each of the LSP Transport and Access Groups, health, and older people organisations such as Age Concern, Cambridge Older People's Enterprise (COPE), and Help the Aged. We are looking to implement a similar forum for the young people theme. Despite some work already undertaken we have not found an obvious group at this stage to assist us in taking forward the lone parent theme. This will however be pursued and the LSPs will be ensuring that this theme is fully investigated in each of the action plan areas.

### Accessibility assessment

A two-tiered approach was taken to formulate the Accessibility Strategy. First, a quantitative mapping exercise using Government software, Accession, was carried out to map journey times between households and ten key services within the county. The results of this analysis are maps based on electoral wards. These illustrate the numbers and percentage of households that can travel to their nearest key service in a certain number of minutes within a specified timeframe. Figure 5.2 is an example of one of these maps, and illustrates access to GP surgeries. All of the maps are available to be viewed at www.cambridgeshire.gov.uk/accessibility.

Second, the maps were used as a steer for a qualitative exercise that was undertaken by members of the Local Strategic Partnerships (LSPs) in Cambridgeshire. Each of the five LSPs within Cambridgeshire nominated two people to serve on a Countywide Accessibility Strategy Group. The nominees came from a wide range of sectors important in taking accessibility forward – including education, health, planning and transport. The group's primary role was to identify and prioritise areas to be included within the Accessibility Action Plans. Furthermore, we held a series of meetings with other partners – for instance, the Primary Care Trusts and Jobcentre Plus – to ensure that we would work in partnership on accessibility planning. This is further discussed in the Accessibility Strategy, which is contained within **Appendix 4** of this document.

> Objective: To improve accessibility in our towns and villages.
>
> *Cambridgeshire County Council Corporate Plan 2005–09*

Considered in combination, these two approaches to accessibility planning, of using the LSPs and meeting with organisations separately, have ensured that the Strategy encompasses all sectors that are necessary to be involved in order to improve accessibility, and thus reduce social exclusion in Cambridgeshire.

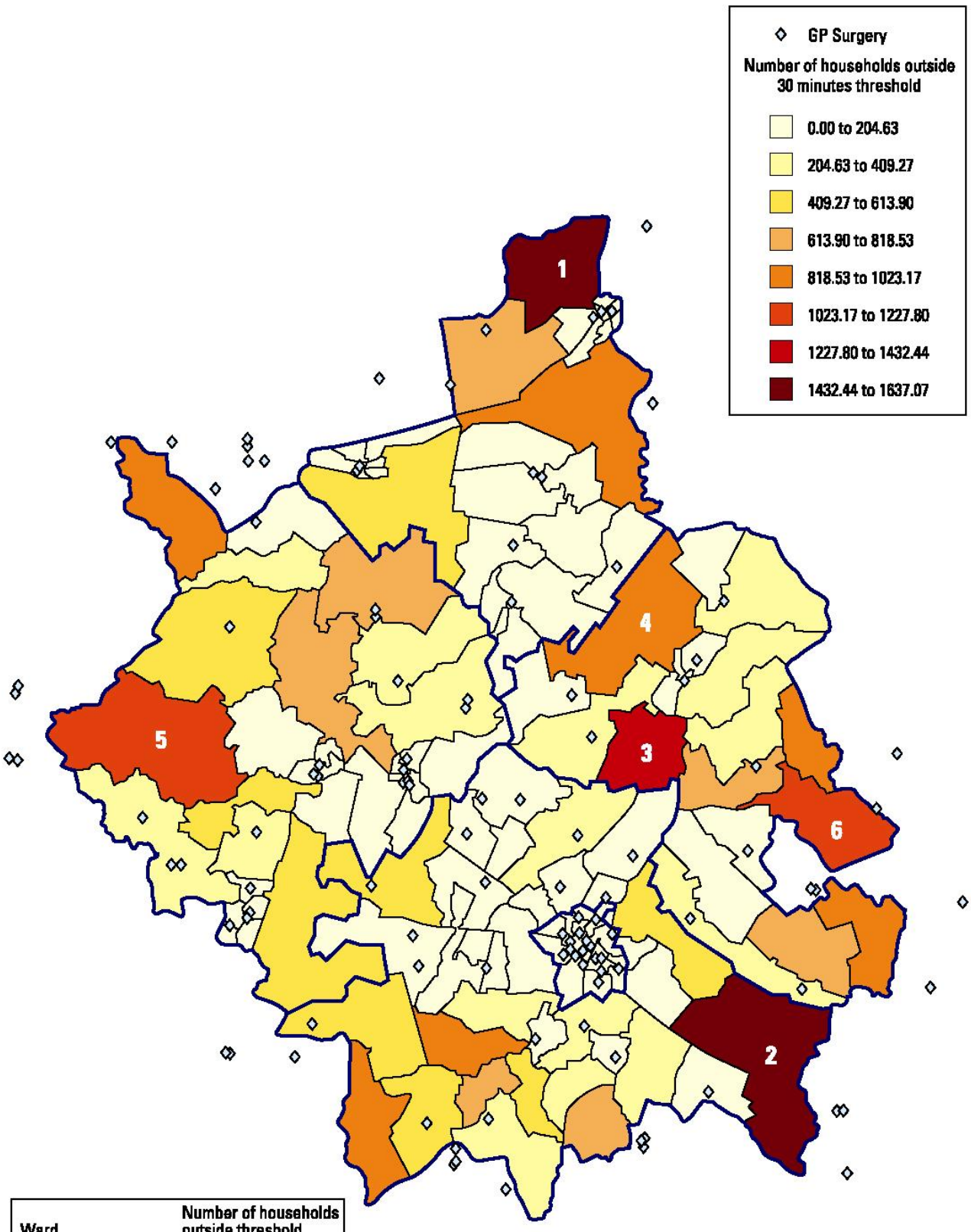
### Priority Areas and Action Plans

Once maps showing accessibility to individual key services were produced, two composite maps were created, one showing accessibility in terms of percentages, the other in terms of numbers. These maps were calculated by assigning points for each ward depending on its level of accessibility.

After the composite maps were produced, the Countywide Accessibility Strategy Group met to prioritise initial areas to study, and any themes to include within the Accessibility Strategy. The group agreed that the nine least accessible wards should form part of the Accessibility Action Plans. The following nine wards have been prioritised, and are shown in Figure 5.3.

- Parson Drove and Wisbech St Mary
- Manea
- Isleham
- Fordham Villages
- Balsham
- Somersham
- Kimbolton and Staughton
- Ellington
- Elton and Folksworth

## Figure 5.2 Accessibility of GP Surgeries in Cambridgeshire




| Ward | Number of households outside threshold |
|---|---|
| 1. Roman Bank | 1637 (out of 2427) |
| 2. Balsham | 1600 (out of 1756) |
| 3. Stretham | 1355 (out of 1416) |
| 4. Downham Villages | 1174 (out of 1595) |
| 5. Ellington | 1169 (out of 1169) |
| 6. Fordham Villages | 1160 (out of 1527) |

Produced by FWT 16.6.05 www.fwt.co.uk

In addition to the geographical areas, the Countywide Accessibility Strategy Group felt that having some themes or population groups would increase levels of accessibility in the county. This was because some groups of people have poorer access to services, yet this would not be illustrated on the quantitative map work, as the figures utilised are averages for the total population within each ward. To this end, the group decided on the following three themes.

Objective: To improve accessibility to services, especially for disadvantaged groups.

*East Cambridgeshire Community Strategy*

- Young people.
- Old people.
- Lone parent families.

The LSPs will lead on the production of Accessibility Action Plans for the geographical areas that we have identified. It is envisaged that the Accessibility Action Plans will be prioritised in the following ways.

- We will aim to produce accessibility action plans as soon as possible where significant work has already taken place as part of other work by the county council and its partners.
- Our chosen geographical areas and themes will be prioritised according to the needs of residents and sources of funding. Some areas and themes have poorer levels of accessibility than others. Therefore, it is logical to prioritise work on these.

**Figure 5.3 Priority areas**




## Partnership working

Through working directly with the LSPs and other organisations we have established a number of key partnerships that have been used to formulate and develop the Accessibility Strategy. The following sectors and organisations have already agreed to work in partnership with us on accessibility.

- Primary Care Trusts.
- Jobcentre Plus.
- Social Services.
- District Councils.
- Neighbouring transport authorities.
- Cambridgeshire ACRE.
- Cambridgeshire Local Education Authority.
- Cambridge Social Inclusion Partnership.
- Cambridgeshire Community Safety Team.
- Cambridgeshire Sport Development Organisation.

Objective: To reduce inequalities in health outcomes across different groups and areas.

*Cambridge City Primary Care Trust Local Delivery Plan.*

All of the groups have been very enthusiastic and willing to assist in taking accessibility planning forward. This has really helped to establish strong partnerships. The information, knowledge and experience of partners has been used directly in the quantitative and qualitative analysis, and has assisted in formulating our Accessibility Strategy. The actions planned by these partners will be instrumental to delivering the forthcoming accessibility action plans.

## Integration and implications for wider policies

We have been able to ensure that the Accessibility Strategy is well integrated with wider objectives and visions, as a result of establishing partnerships with key organisations and sectors within the county council.

### *Local Transport Plan*

Improving accessibility is a key aim of the LTP and as such is one of the six overarching objectives of the plan, one of the Shared Priorities for Transport, and a recurring element of the plan's vision, which has meeting the needs of residents as a component of it. The LTP sets out how we will deliver this aim, through connection to transport corridors, better integration between land use and transport planning, and creating efficient networks. Where the

programme for accessibility reflects capital spending we have included this in the programme. The revenue programme reflects priorities for supported bus services and community transport, both of which have accessibility as a key consideration. We will ensure that accessibility is a key consideration in all schemes that we take forward.

***For transport***

Our Long-Term Transport Strategy (LTTS) is a high level strategy that recognises the importance of addressing accessibility issues in the county, especially in the rural areas. As the strategy progresses, it will take on board issues emerging from the accessibility action plans as they develop.

We have also been in discussions with our Passenger Transport department to identify how the accessibility strategy, and in particular the use of Accession can be used to influence the way in which the County Council chooses to subsidise bus services. Within our Bus Strategy, we already have a number of criteria that we use when considering which supported services we develop and prioritise. One of these criteria is that the service should contribute to social inclusion and accessibility. We therefore intend to investigate how our current use of Accession could be extended to inform these decisions, thus ensuring that accessibility issues are firmly considered in any decisions concerning supported bus services.

In addition, we are also considering how we can use the accessibility data we are collecting to inform our own Staff Travel Plan. The County Council currently makes a commitment in its Travel Plan to reduce the number of single occupancy car trips. It has already put in place a number of initiatives that will help achieve this, however we are currently investigating how we could use Accession to inform what initiatives may give the greatest opportunity for modal shift. In particular, it is anticipated that we may be able to use Accession to identify gaps in the current network where staff bus routes may possibly be developed. If successful this approach could also be taken forward by the Travel for Work partnership working with developers and employers within Cambridgeshire.

***For planning***

We currently have four Area Transport Plans for the county. When these plans come to an end, they will be revised to incorporate accessibility, ensuring that it is fully taken into account, and integrated with our accessibility strategy. Consideration of Sub-Regional Section 106 issues is ongoing, and takes account of the Accessibility Strategy, ensuring that accessibility planning is taken into account in future Section 106 negotiations. Thus, it will assist in achieving our objectives and targets with regards to accessibility.

As major new developments within the sub-region come forward, land use planning and the planning of transport infrastructure will be fully integrated. This ensures that new developments will have access to services and sustainable modes of transport when residents begin to occupy households. As an example of the work we are already undertaking in this respect on the proposed new town of Northstowe, an accessibility rate of 400 metres to public transport services and 600 metres to Cambridgeshire Guided Busway stops has been specified. In addition, the level of services within the development has been specified, with schools and a supermarket being some of services proposed. We will work to deliver similar levels of accessibility to public transport in all new developments.

Our District Councils are fully committed to ensuring that accessibility is delivered. To this end, as our five Local Development Frameworks are revised, accessibility will be incorporated into them to ensure that it is fully taken into account and integrated with our accessibility strategy.

The draft Regional Spatial Strategy (RSS) contains key objectives relating to accessibility. This Strategy will work towards and contribute to realising these objectives and to the targets within them, once these have been finalised. The Cambridgeshire and Peterborough Structure Plan contains key objectives relating to accessibility. This Strategy will work towards and contribute to realising these objectives.

***Health and education***

As accessibility planning necessitates partnership working, it impacts on our partners' policies and strategies. The Strategy has implications for both the Primary Care Trusts within Cambridgeshire and Cambridgeshire Local Education Authority policies and strategies. In addition to other things, the Primary Care Trusts are ensuring that all available opportunities for delivering access and transport services in partnership with other agencies are explored and exploited where a more equitable, cost-effective and patient-centred health service may be possible. Among other things, the Local Education Authority is very interested in using Accession software to find the best place to situate new and re-locating schools.

***Social inclusion strategies***

The Strategy has implications for social inclusion strategies, as both are trying to achieve similar goals. We are currently working in partnership with the Cambridge Social Inclusion Partnership, which will ensure that the strategies complement and, where appropriate, assist each other in achieving their aims. Any future social inclusion strategies will take accessibility planning into account.

***Neighbouring authorities' plans***

The Strategy has implications for plans and strategies outside of the county. We are currently working with our neighbouring transport authorities, for example Essex and Peterborough – in order to assess the scope of joint

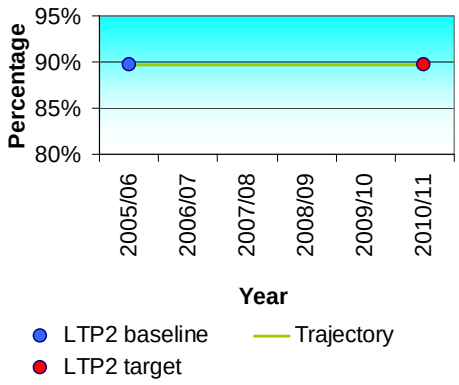
working on our accessibility issues that are on the county border. This joint working will continue to explore whether there are any synergies with poor accessibility on the other side of the county border. Where there are synergies, a partnership approach will be taken in order to increase accessibility.

**LTP Indicator ACC1 (LTP1)**
**Target:** No less than **89.7%** of households to be within an hour of an area of town centre activity in the morning peak hour as measured by Accession in **2010/11**.

***Evidence targets are ambitious and realistic***

- We can only influence the services that we support; commercial operators can choose which services they wish to run
- It is unclear whether revenue funding will be maintained at current levels in the future

**Figure 5.4 Indicator ACC1 (LTP1)**




***Key actions of local government needed to achieve targets***

- To continue to work in partnership in order to further develop the strategy and Action Plans, and subsequently implement the action plans.
- To ensure that accessibility issues are taken fully into account when considering which bus services to support
- To bid for the necessary levels of funding for the action plans.

***Key actions of local partners needed to achieve targets***

- LSPs need to continue to lead on accessibility within their district, so that the action plans are appropriate for the wards within their district. Subsequently, the LSPs need to lead on implementing some of the measures contained within the action plans.
- The Primary Care Trusts, Jobcentre Plus and Cambridgeshire ACRE need to continue to work with all partners on accessibility planning. The work includes further developing the strategy and action plans, and then implementing these. It may be appropriate for some of these partners to lead on schemes within their area of expertise.

***Principal risks and how they will be managed***

- Lack of funding from Government and other sources of funding will be managed by ensuring that all appropriate sources of funding are utilised, and that bids are written to the highest possible quality.
- Schemes in the action plans not being appropriate for the area will managed by effectively engaging with stakeholders and members of the public to ensure that proposed schemes and strategies are appropriate for the local area.
- Partnerships disintegrating over time will be overcome by regularly and effectively communicating with all partners involved so that they are fully aware of progress to date, and future timescales and work necessary.

## Accessibility Planning indicators and targets

We have developed the work that we initially did on indicators for the accessibility strategy. After careful consideration, we have decided to have one strategic indicator at this stage. We have not at this stage set any indicators relating to our first Accessibility Action Plan, covering the Fenland wards of Manea and Parson Drove & Wisbech St Mary.

As part of the ongoing process of implementing this Action Plan, we will be seeking to identify not only which measures are most effective, but also whether the interventions and measures that take place are capable of being monitored quantitatively in a meaningful way, either singly or as a package of measures. This work may lead to targets being set for this Action Plan at a later date, and will also inform any target setting that may be proposed for the further action plans. In line with advice from the DfT, any further indicators and targets that we develop as the action plans progress will be reported in the 2008 progress report.

The indicator that we are proposing is based on the percentage of households that can access an area of town centre activity within 60 minutes on a countywide basis. There are a number of reasons for choosing this as an indicator:

- We have used the Office of the Deputy Prime Minister's definition of 'Areas of town centre activity'. By its nature, an area of town centre activity will include a number of the other services that we have mapped separately. Therefore, given that access to a range of services has been highlighted as a problem, rather than just to a particular one, this indicator would encompass a range of different services anyway.
- At a strategic level we are trying to incorporate accessibility into a number of wider transport strategies and policies within the authority. In particular, we are in the process of setting up a system with our passenger transport department using Accession which will help them to determine which bus services should be supported and what effect any changes they may make would have in terms of people who can access services. Therefore it is considered that due to the way in which Accession measures accessibility, it is an area that we could have a certain degree of control over, albeit only for the services that we support.

Despite this, we have decided that rather than setting an unrealistic target, our aim is to not make the situation any worse than it is now. The principle reasons for this are that we only have control over the bus services that we support; there is little we can do to influence the way in which commercial operators choose to provide their

services. Secondly, as a County Council it is increasingly unclear what the revenue budget will be for supporting such services. It is considered that this is realistic and sits with the objectives of the Strategy.

### Programme

We have been extremely pleased that all the LSP groups with priority wards have been keen to take forward the necessary work as soon as possible. A joint action plan for the wards of Wisbech St Mary and Manea has already been drawn up and is included in **Appendix 4**. It is intended that the remainder of the action plans will be drawn up in 2006 and early 2007, so that we can start addressing some of the problems as soon as possible. At this stage it is not clear whether the LSPs will decide to have an individual action plan for each ward, or whether to do as the Fenland LSP have done and combine the areas into one action plan because of the synergies that exist between the areas. Figure 5.5 sets out how we intend to tackle the priority areas over the lifetime of the LTP.

**Figure 5.5 Phased programme for completion of action plans**

<table>
<tr><th>Priority area</th><th>2006/07</th><th>2007/08</th><th>2008/09</th><th>2009/10</th><th>2010/11</th></tr>
<tr><td>Parson Drove & Wisbech St Mary</td><td rowspan="2">Action plans submitted</td><td colspan="4" rowspan="6">Implementation of action plans</td></tr>
<tr><td>Manea</td></tr>
<tr><td>Balsham</td><td rowspan="4">Complete action plans</td></tr>
<tr><td>Ellington</td></tr>
<tr><td>Elton and Folksworth</td></tr>
<tr><td>Kimbolton & Staughton</td></tr>
<tr><td colspan="2">Isleham</td><td rowspan="2">Complete action plans</td><td colspan="3" rowspan="2">Implementation of action plans</td></tr>
<tr><td colspan="2">Fordham villages</td></tr>
<tr><td>Older people</td><td colspan="5">Start 2006/07, ongoing across lifetime of LTP</td></tr>
<tr><td colspan="2">Young people</td><td colspan="4" rowspan="2">Start 2007/08, ongoing across lifetime of LTP</td></tr>
<tr><td colspan="2">Lone parent families</td></tr>
</table>

## Transport for people with disabilities

Objective: To improve personal safety and mobility for all users, including those with disabilities.

*South Cambridgeshire Local Plan 2004*

The Disability Discrimination (DDA) Act 1995 aims to end the discrimination that many people with disabilities face. In particular, the Act gives people with disabilities rights to access goods, services and facilities. When developing our approach to transport for people with disabilities we have taken into account the requirements of the DDA. In designing this we have done the following.

- Ensured that the needs of people with disabilities have been considered at every level and that, wherever possible, improvements and changes have been made to services and infrastructure provided. The results of this can be seen, for example, in the provision of low floor buses in Cambridge city centre, which now amounts to more than 90% of buses.
- Recognised the importance of ensuring that the most up-to-date training is received on issues like disability awareness, and strive to keep staff at the forefront of current thinking.
- Reserved some 6% of car park spaces for blue badge holders.
- Conducted audits of parking within the market towns through the Market Town Strategies. Where this has been shown to be lacking, it has led to the introduction of new parking facilities for people with disabilities.
- Regularly engaged with local groups for people with disabilities in order to see what improvements they would like to see to the transport system.

Recommendation: Enhance community transport to both maintain and improve access to local services.

*South Cambridgeshire Physical Activity Strategy*

The accessibility strategy will assist in meeting the needs of people with disabilities. The definition of accessibility within the strategy encompasses ease of use when making a journey. We will seek to increase the ease of use of making a journey by reducing the number of physical and psychological barriers that make it difficult or deter people from making a journey. A reduction in the number of barriers that reduce accessibility will be made through further work with partners to tackle social exclusion, and the use of community transport schemes for those who find it difficult to use conventional transport.

## Community transport

Community transport promotes social inclusion, improves access to services in urban and rural areas, addresses the needs of people with disabilities, and encourages regeneration and neighbourhood renewal. It is therefore a key element in achieving our objectives for accessibility and improving quality of life. The focus for community transport will be in three main areas:

- improving access to training and social activities
- improving access to health and community facilities, and
- extending opportunities for social participation.

**LTP Indicator ACC2 (BV165)**
**Target:** More than **65%** of crossings to have facilities for disabled people meeting the standards set by BV165 by **2010/11**

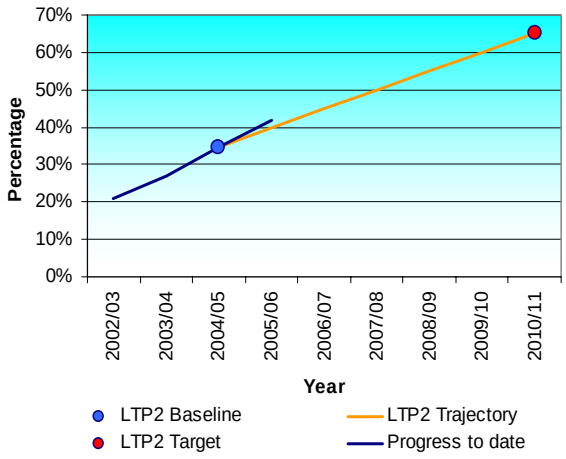
***Evidence target is ambitious and realistic***
The trajectory is consistent with recent progress despite the fact that many more complicated and constrained junctions have not yet been targeted as part of the ongoing work towards delivering progress towards this indicator.

***Key actions of local government needed to achieve target***
Identification of funding for works. Programming / coordinating works as part of other maintenance works at existing crossing sites.

***Key actions of local partners needed to achieve target***
Not applicable

***Principal risks and how they will be managed***
Lack of identified funding as part of Government maintenance block allocation, and competition with other maintenance areas for the limited funds available. Complicated junctions that incorporate crossings that do not currently meet standards set by BV165 may require a scale of works out of proportion to the benefits achieved, or that reflects the usage or potential usage of the facilities. Works at such junctions may be delayed until they can be incorporated in a cost effective manner into other maintenance or safety works at the location.

**Figure 5.6 Indicator ACC2 (BV165)**




## Implementation of the community transport strategy

To meet the aims of the community strategy we will therefore:

- undertake a partnership approach to service development
- undertake needs analysis to ensure that any new scheme meets the needs of the population of the area
- introduce schemes tailored to needs
- integrate all modes of public transport, providing interchange facilities where appropriate, and
- co-ordinate all transport service providers to maximise cross-benefits and develop one-stop shops where appropriate.

The Accessibility Strategy will assist in meeting the aims of community transport by exploring how this mode of transport can meet the needs of people in places with low levels of accessibility. It is envisaged that community transport will be one of the main modes of transport utilised to overcome many of the accessibility issues. Working groups have been established in Fenland and South Cambridgeshire to develop links between community transport, health transport and other services' transport. LSPs will have a lead role to play in engaging all agencies in this development.

## The Rural Transport Partnership (RTP)

Much of the development of community transport has been achieved through the RTP. The multi-agency group was formed in 1999 to reduce rural isolation through a wide range of innovative transport projects. The RTP has been able to access significant Government funds by undertaking needs-based research, and developing suitable schemes. We have provided funding for the schemes, which has enabled the RTP to access Countryside Agency (now part of the East of England Development Agency) grants for up to 70% of the total scheme costs. It has supported a number of schemes, including:

- Ouse Valley Dial-a-Ride
- Ely, Soham and District Dial-a-Ride
- Cambridge Dial-a-Ride
- Three Counties Transport (3CT)
- Fenland Area Community Transport

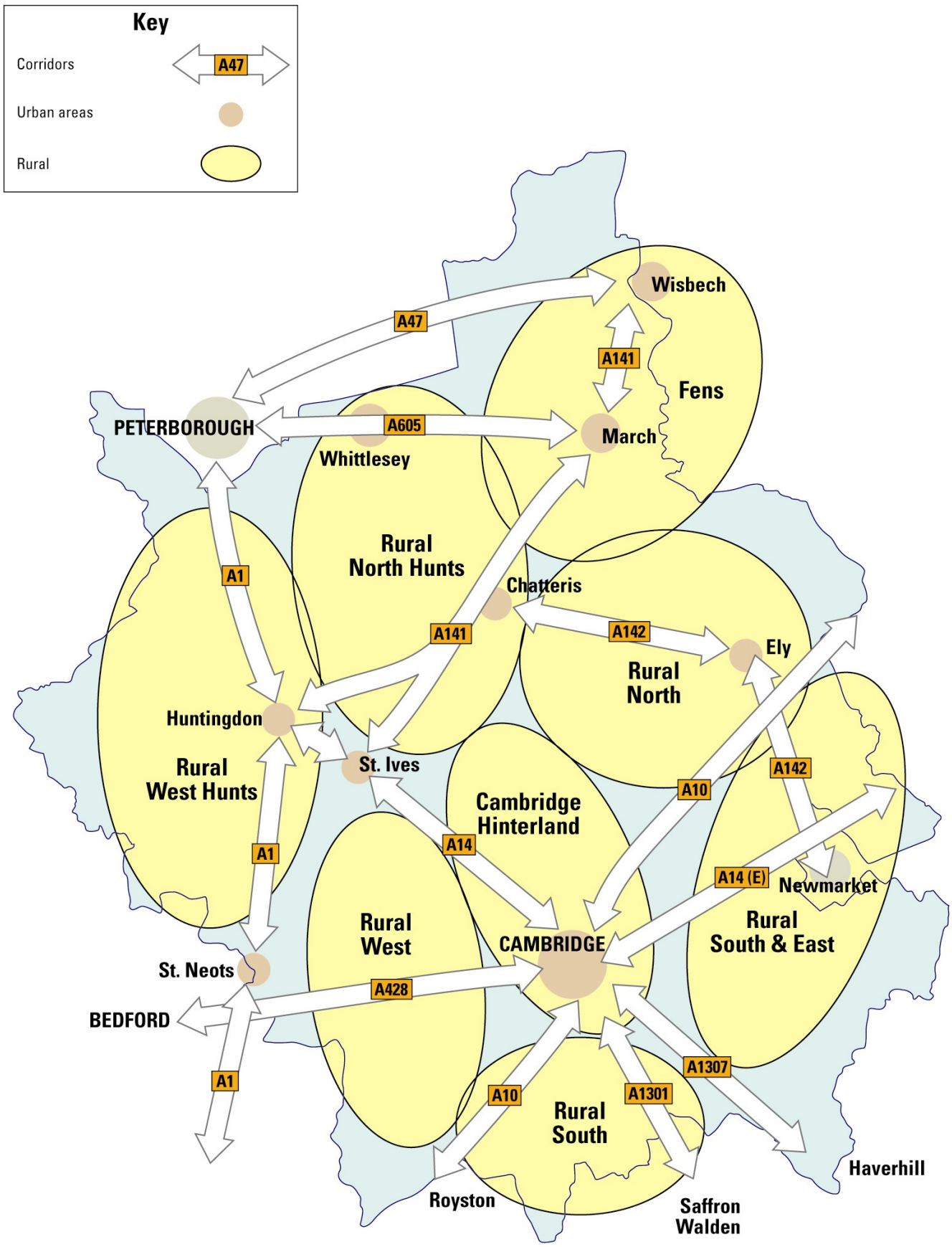
## Future funding of community transport

In this LTP, £600,000 is allocated to the community transport programme from LTP budgets (see Chapter 12), and will focus on the areas shown in Figure 5.7. The Action Plan for Parson Drove / Wisbech St Mary and Manea (see **Appendix 4**), identifies potential schemes that could be funded via this source. Examples include investigating the possibility of suitable bus interchange facilities in Guyhirn, through-ticketing, a Fenland-wide integrated community transport scheme, an integrated community car scheme, and co-ordinated health service access.

# Supported bus services (revenue funded)

We will continue to provide financial support from revenue funding for non-commercial bus services using the following criteria.

**Figure 5.7 Areas of focus for community and public transport programmes**



## Ability to meet existing LTP objectives

### Modal shift

Supported services should:
- contribute towards LTP targets for buses, and
- contribute towards stabilising traffic entering the market towns and Cambridge.

> All buses should be fully accessible.
> *LTP consultation response*

### Contributes towards social inclusion and accessibility

Supported services should:
- provide connections to cities/market towns/corridors
- contribute towards increasing the percentage of rural households with access to public transport, and
- help to address overall social conditions.

## Value for money and cost

In order to achieve value for money we will support services where:
- they are moving towards becoming self-supporting
- the total cost of supporting a particular service does not take up too great a proportion of the total available budget, and
- the subsidy cost does not usually exceed £2 per passenger journey.

# Taxis (Hackney Carriages) and private hire vehicles

Taxis and private hire vehicles (PHVs) play a key role in the provision of public transport throughout the county. They provide support to and complement other forms of public transport, and are an essential provision for evening social journeys. Taxis are often the first form of public transport that visitors to the county use.

Taxis provide the following.

- Door-to-door transport for people with: disabilities, heavy shopping and luggage, young children, and concerns over personal safety.
- Flexibility and convenience for areas where: bus services are infrequent, no services operate during unsociable hours, and an on-demand service is required for disabled individuals.
- Part of an integrated transport system linking: trains to long-distance bus services; home to stations to access rail services and airports, and bus and rail services.
- The potential for innovative schemes: taxi-buses and shared taxis can provide demand-responsive transport and offer cost effective solutions where demand is low (for example in rural areas where conventional buses are not cost effective), and increased accessibility in rural areas through feeder services to bus corridors.

As such, taxis form an essential part of public transport provision within the county. Our transport strategy envisages expansion of this role, especially in the more rural areas of the county, as part of an integrated transport system that uses the most cost effective forms of public transport for the area. In addition, as the accessibility strategy action plans are developed, it may be that taxis have a role to play in increasing accessibility within the county. It is envisaged that this is more likely to be the case in rural and low population density areas.

Responsibility for taxi licensing lies with the five districts within the county. Each district operates licensing policies that apply across the whole district.

**Figure 5.8 Taxis with wheelchair access**

| Local Authority | No. of taxis | No. of wheelchair accessible taxis | No. of private hire vehicles |
|---|---|---|---|
| Cambridge City | 259 | 146 | 201 |
| East Cambridgeshire | 76 | 3 | 56 |
| Fenland | 135 | 1 | 160 |
| Huntingdonshire | 44 | 2 | 450 |
| South Cambridgeshire | 3 | 4 (inc. PHVs) | 253 |
| **Total** | 517 | 156 | 1,120 |

The numbers of taxis and those with wheelchair access is shown in Figure 5.8. There are currently no limits on the number of vehicles, but this is regularly reviewed. This shows that the greatest numbers and proportions of taxis and PHVs are in Cambridge. Licensing policies are comparable with other areas, but the most stringent licensing requirements are those in Cambridge, although this is in keeping with comparable urban areas in East Anglia. In all of the districts, the numbers of vehicles equipped to allow improved access for disabled users will rise as the requirements of the Disability Discrimination Act comes into force.

## Taxi ranks and the use of bus lanes

Taxi ranks are available in all of the urban areas, and close to interchange facilities such as railway stations. These are reviewed within the market town strategies to ensure that there are sufficient spaces that are placed effectively.

Because of the importance of taxis, we allow them to access bus lanes throughout the county (and will continue to do so as new bus lanes are introduced), and also other restricted areas, such as the Core Traffic Zone in Cambridge.

### Policies for taxis

In keeping with our overall transport strategy aimed at integrating taxi use more effectively as part of the improvements to public transport, we will:

- improve disabled access
- ensure appropriate provision at interchange facilities and expand facilities at the Park & Ride sites to link in with improved coach provision
- continue to review the provision of taxi ranks through the Market Town Strategies and the review of Cambridge city centre, to provide new infrastructure, such as additional rank space and shelters where needed
- introduce innovative techniques for taxis such as electronic hailing where the pressure on space for public transport is greatest, and
- improve vehicle specification, in particular the use of cleaner vehicle fuels.

We will monitor this process through a Best Practice Group led by the County Council involving all five districts and taxi operators, to cover cross-district boundary issues, share good practice and develop consistent standards.

Within the rural areas, we will ensure that taxi operators are closely involved in the measures to be introduced to improve public transport. In particular, we will encourage the introduction of a system of shared taxis in rural areas, connecting to the transport corridors. To promote this, we will investigate the possibility of subsidising taxi services in areas where this proves more likely to provide a higher quality of public transport in a more cost effective way than other forms of public transport.

### Programme

The programme element of the LTP for taxis is covered through other areas of public transport, such as the use of taxis for community transport and new interchange facilities that include measures for taxis. Through the life of the plan we aim to develop and continue with the following initiatives where appropriate.

- Quality Partnerships, especially with regard to the introduction of shared taxis in rural areas.
- Improvements to facilities for taxis where appropriate through Market Town Strategies.
- Continuing with concessionary fares schemes, such as the Taxi card scheme in Cambridge.

## Cycling and walking

Cycling and walking are particularly important in rural areas where people do not have access to a private car or where public transport is not appropriate or available. Both modes are sustainable and affordable and have an important role to play in improving accessibility in rural areas. They also provide the opportunity for people to undertake exercise, thus contributing to healthy communities and improving quality of life. Additionally high quality walking and cycling facilities will help to support tourism in rural areas by improving access to the countryside. We therefore aim to improve opportunities for walking and cycling in rural areas. To achieve this we will:

- enhance the road, cycleway and bridleway network connecting villages and corridors, and provide secure cycle parking at interchange sites
- improve the walking environment as part of the work we are doing to improve footways and other Public Rights of Way, and extend existing networks to connect to and cross corridors
- improve footway/footpath lighting in areas where there is crime or fear of crime
- increase the number of pedestrian and controlled crossings with tactile paving in order to make walking safer for mobility and sensory-impaired people
- take into account the needs of mobility-impaired users when introducing new facilities, and
- introduce further measures to declutter the street scene.

Cycling and walking are also important as leisure activities, their use can also be promoted on bridleways and byways. This approach is set out in the section on Public Rights of Way in Chapter 9.

## Conclusions

Delivering the Accessibility Strategy will help to increase the level of access to services. It is a comprehensive and integrated plan that addresses key accessibility issues across the county. The use of both quantitative and qualitative data ensures that the approach taken to accessibility planning is a holistic one. The Strategy will be taken forward and the action plans delivered in partnership with many organisations and sectors.

# 6 Air Quality

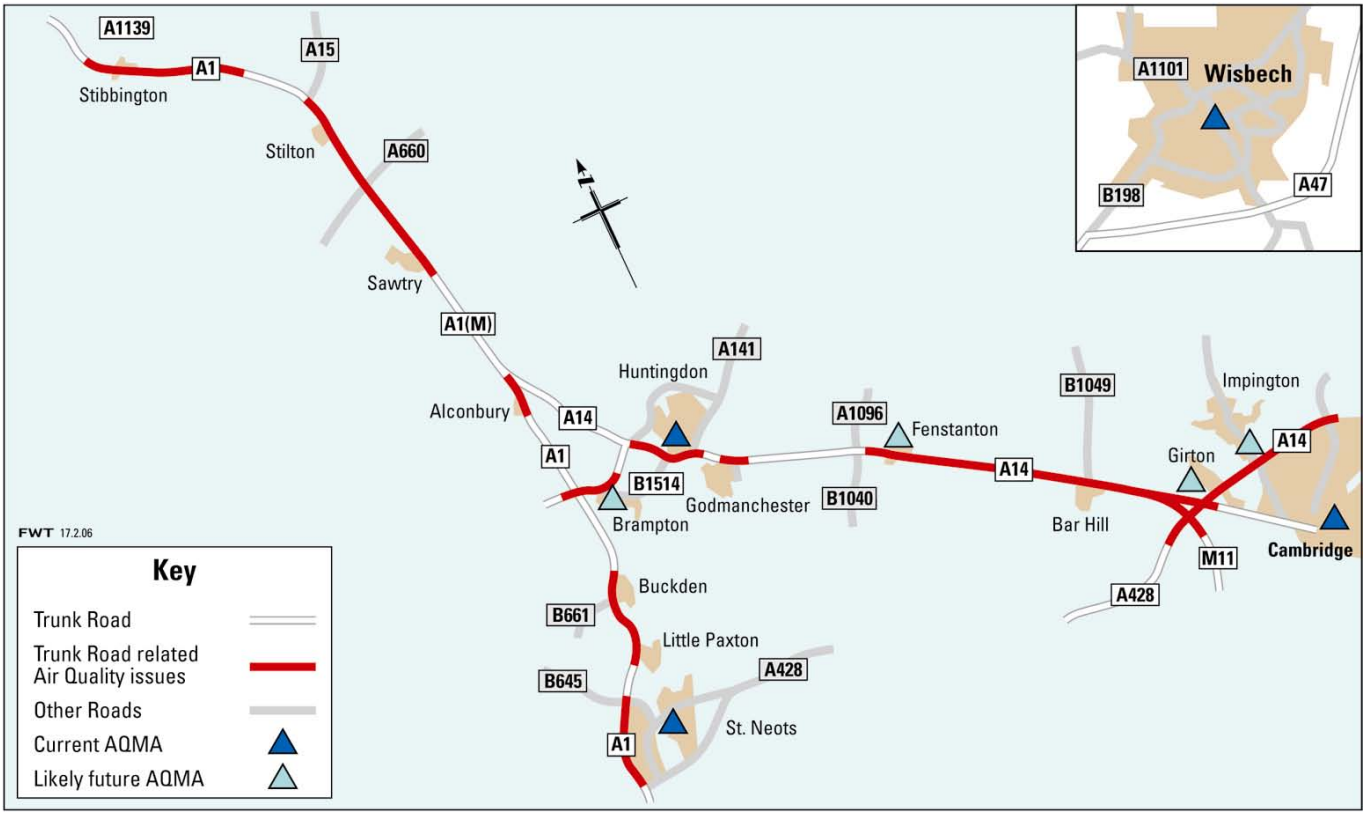
Air pollution can have a serious effect on human health and the environment. While there remain differences in medical opinion about the extent of this, the Committee on the Medical Effects of Air Pollutants (COMEAP)[7] advises that air pollution may have an adverse effect on the health of those with pre-existing heart conditions and lung diseases. The National Air Quality Strategy established the principle of air quality management, and Air Quality Regulations followed in 1997. Local authorities have to undertake a rolling programme of assessments of seven specified pollutants, followed by a Detailed Assessment if required.

In Cambridgeshire, as elsewhere, the most severe transport related air quality problems identified are generally associated with roads that have slow moving or stationary traffic on a regular basis, or which have very high traffic flows. Additionally, in urban areas, the 'canyon' characteristics of some streets can lead to problems in areas where relatively low traffic flows are seen. Chapter 7 details how we are dealing with congestion, and much of the programme that deals with congestion problems will have beneficial impacts on levels of transport related air pollution. However, in areas experiencing severe transport related air pollution, this chapter considers specific interventions that we will seek to make.

We have a long history of partnership working on air quality issues in Cambridgeshire. Members of the Cambridgeshire Local Authorities Air Quality Group have worked together very effectively on the air quality review and assessment processes, producing joint documents[8]. These have shown transport to be the major source of air pollution in the county, apart from in Wisbech where an industrial process has resulted in the designation of Air Quality Management Areas (AQMAs) for sulphur dioxide ($SO_2$) and fine particles ($PM_{10}$).

The Second Review and Assessment Updating and Screening Assessment, published by the County and District Councils in 2003, reported that the national air quality objectives for 2005 were likely to be met across the county for benzene, 1,3-butadiene, carbon monoxide, lead and nitrogen dioxide ($NO_2$). However, $NO_2$ levels in Cambridge city gave cause for concern at that time and further work has identified several other areas where AQMAs have or are likely to be declared. Figure 6.1 shows the current and possible future AQMAs in Cambridgeshire, and also the lengths of the A14 and A1 trunk roads that were subject to detailed assessment modelling exercises.

**Figure 6.1 Transport related AQMAs and Trunk Road areas of concern**






The results of all recent air quality work undertaken by the District and City Councils are summarised in the district-by-district sections below.

Air quality is continually monitored in the county. This is carried out by:

[7] COMEAP is an advisory body of independent experts that provides advice to Government Departments and Agencies on all matters concerning the potential toxicity and effects upon health of air pollutants. Their findings underpin the health-based air quality objectives.
[8] See www.cambridgeshire.gov.uk/environment/air/Councils_progress/

- monitoring diffusion tube sites in all of the districts to measure $NO_2$.
- real-time monitoring for a mixture of pollutants in Cambridge, Huntingdon, St. Neots, Godmanchester, Impington, Bar Hill and at Wicken Fen.

This chapter focuses on air quality problems identified in Cambridgeshire and the role of the LTP in addressing them. Data collected for national indicators and surveys is given, followed by an examination of the ability of the LTP programme to maintain and improve air quality generally. Finally, there is a district-by-district baseline and 'hot spot' area data, and information on the four current transport related AQMAs in the County.

Detail of the wider environmental strategies that direct air quality management across the county can be found in Chapter 9.

Objective: Improve air quality in Cambridgeshire.

*Environment Strategy and Action Plan*

# Air quality data for national indicators and surveys

## National air quality objectives

$NO_2$ and $PM_{10}$ are the traffic-related pollutants of most concern. National objectives related to these are as follows.

**National air quality objectives for $NO_2$**
Annual mean objective – 40μg/m$^3$
1 hourly mean – 200μg/m$^3$ not to be exceeded more than 18 times a year by 31st December 2005

**National air quality objectives for $PM_{10}$**
Annual mean objective – 40μg/m$^3$
24 hour mean objective – 50μg/m$^3$ not to be exceeded more than 35 times a year

## National survey data

The National $NO_2$ Diffusion Tube Survey provides annual average figures for selected roadside and background sites. These provide a general picture of $NO_2$ levels across the county indicating problems at roadside locations and generally elevated polluted levels (for example, due to the weather in 2003).

Figure 6.2 shows the data for each district from the National $NO_2$ diffusion tube survey. This shows exceedences of objective levels in Cambridge, Fenland, Huntingdonshire and South Cambridgeshire (in red type). Comparison with the background sites shows traffics contribution to overall levels of pollution.

**Figure 6.2** **National $NO_2$ diffusion tube survey** (Annual mean objective for 2005 – 40μg/m$^3$)

| Location | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|
| **Roadside sites** | | | | | |
| Cambridge | **48** | **44** | **50** | **56** | **51** |
| Market Street, Ely | 28 | 15 | 15 | 31 | 26 |
| Fenland | 30.8 | 38.2 | **45.2** | **50.5** | 31.9 |
| High Street, St. Neots | **40.6** | 39.4 | **40.9** | **46.0** | 38.0 |
| South Cambridgeshire | 40 | **46** | **45** | **51.6** | **41** |
| **Background sites** | | | | | |
| Cambridge | 27 | 27 | 28 | 31 | 28 |
| East Cambridgeshire, Fieldside | 21 | 10 | 10 | 23 | 20 |
| Fenland | 21 | 15.7 | 19.7 | 21.7 | 15.2 |
| Avenue Road, St. Neots | 22.5 | 23.1 | 25.1 | 26.9 | 24.1 |
| South Cambridgeshire | 26 | 25 | 27 | 30 | 26 |

# Countywide LTP Air Quality Strategy

While much of the focus of LTP guidance is on dealing with Air Quality problems in designated AQMAs, it is important to recognise the potential of the LTP and of our transport programme to lead to a more general improvement in transport-related emissions of pollutants. In Cambridgeshire, the continuing rise in traffic combined with future population growth could exacerbate existing problems of air pollution if measures are not put in place to manage this growth. The focus of the Long-Term Transport Strategy (LTTS) and of our overarching transport programme is to provide the necessary infrastructure to support the transport demand of the Growth Agenda in an integrated and sustainable manner.

## How our policies contribute towards improved air quality

The focus of both our first and second LTPs, in providing integrated and sustainable policies, has helped focus our transport programme on measures that can either improve air quality or minimise air quality impacts.

### In urban areas

The Cambridge Core Traffic Scheme – as part of a package of demand management and other complementary measures – manages non-essential vehicles access in Cambridge city centre, giving higher priority to cyclists, pedestrians and public transport. These measures have led to a reduction of traffic in the city centre and have enhanced the environment and air quality. The highly successful partnership between City and County Councils that delivered these measures continues to address air quality problems in the city, as discussed in more detail below, and forms a model for work in the market towns where air quality problems occur.

We will continue to improve the provision for cyclists in Cambridge and significantly enhance the cycle networks in the other towns through the Market Town Transport Strategies. Measures to improve the efficiency of bus services, by reducing congestion along routes, reducing dwell times at stops and layover between trips can also have a marked air quality benefit, both in lowering emissions from buses and in increasing bus patronage leading to lower vehicle mileage and again, lower emissions. The need to increase the number of buses serving Cambridge and the market towns and to cope with the travel demand of the Growth Agenda could potentially outweigh these gains, if we did not work with our partners to improve the emission standards of the bus fleet. A Low Emission Zone (LEZ) will be implemented in Cambridge as part of the Air Quality Action Plan. Initially, the strategy will focus on buses and taxis in the Core Area.

Measures in our Smarter Travel Management programme (see Chapter 7, page 81 for further detail) have the potential to address air quality problems, both in encouraging modal shift, but also in better management of traffic and dissemination of information on days when pollutant levels are or are forecast to be high. As an example, Variable Message Signing could be used to direct traffic to alternative car parks or to use park and ride if particular problems are being experienced. Likewise, travel planning can also be beneficial, both in achieving reductions in vehicular traffic, and also in increasing awareness.

### In rural areas

Our work on accessibility, and on the enhancement of the cycleway and bridleway networks connecting the villages, corridors, and interchange sites, will provide additional opportunities for rural residents to make sustainable transport choices. This will again have the benefit of reducing the vehicular traffic and easing the local congestion that can cause air quality problems. The leisure use of cycles on Public Rights of Way is noted in Chapter 9; the development of cycle routes for leisure can encourage people to consider cycling more favourably as a travel choice for other purposes.

### Along corridors

Our work on corridors will achieve a modal share move away from the private car and towards public transport, walking and cycling. Bus priority measures and interchange sites will give public transport an advantage over other modes and make it a more attractive travel choice. Safe cycle routes away from the main roads will complement and develop the national cycle network.

Achieving this modal share movement and reducing congestion will not only mean there are fewer vehicles than would otherwise be the case, but also less stationary and slow moving traffic. The direct health benefit of this will primarily be seen in dwellings and villages on the corridors but wider quality of life benefits, such as lower carbon dioxide ($CO_2$) emissions and less noise and disturbance will also accrue.

#### *Trunk Roads and Air Quality*

As noted above, traffic on stretches of the A14 and A1/A1(M) Trunk Roads are responsible for local air quality problems. Figure 6.1 shows those areas that were subject to detailed assessment modelling exercises. At the current time, only Huntingdon has an AQMA, but further Trunk Road related AQMAs are likely to be declared at Brampton, Fenstanton, Girton and Impington. If further AQMAs are declared we will seek to work with the Highways Agency and South Cambridgeshire and Huntingdonshire District Councils to address the problems.

However, these are nationally and regionally important routes, and national policies are driving traffic growth on them, for example, in expanding the East Anglian ports, and promoting the London – Stansted – Cambridge – Peterborough and Milton Keynes growth areas. We are therefore conscious that there may be relatively little that we can do at a local level to influence traffic patterns, and thus air quality, on these two routes.

## Air quality in Cambridge

Cambridge, as the centre of employment of the sub-region, sees significant levels of commuter traffic. This, combined with a congested historic centre, ‘canyon streets’ and a centrally located bus station, means that the national annual mean objective for $NO_2$ is breached in the central areas.

### Cambridge $NO_2$ Air Quality Management Area

Data from the continuous monitoring instruments and the diffusion tubes (see Figure 6.3), show that overall there is some variation year on year (largely related to weather conditions) of the levels of $NO_2$ in Cambridge, but that the overall trend is for a slight increase with time. Levels of $NO_2$ measured in Regent Street and Silver Street were significantly lower in 2004 and 2005. This can be attributed to the partial closure of Silver Street and a package of traffic-reduction measures introduced in 2003–04, restricting access to the most central areas of the city.

The data from the diffusion tubes (see Figure 6.4) tells a similar story of a gradual increase over time. Of the 43 tubes, over half showed an exceedence of the annual mean in 2004 and were from roads with high traffic levels. This is consistent with the prediction in the Detailed Assessment of Nitrogen Dioxide based on 2002 data, which showed that 21 of the 42 tubes would show an exceedence of the national objective in 2005. All but five of these

exceedences were expected to be found within the inner ring road area. The values in Figure 6.4 for 2005 and 2010 are those predicted in the earlier Updating and Screening Assessment 2003.

**Figure 6.3** **$NO_2$ data from continuous monitoring sites** (Annual mean objectives for 2005 – 40μg/m$^3$, one hour mean objective – 200μg/m$^3$ not to be exceeded more than 18 times a year)

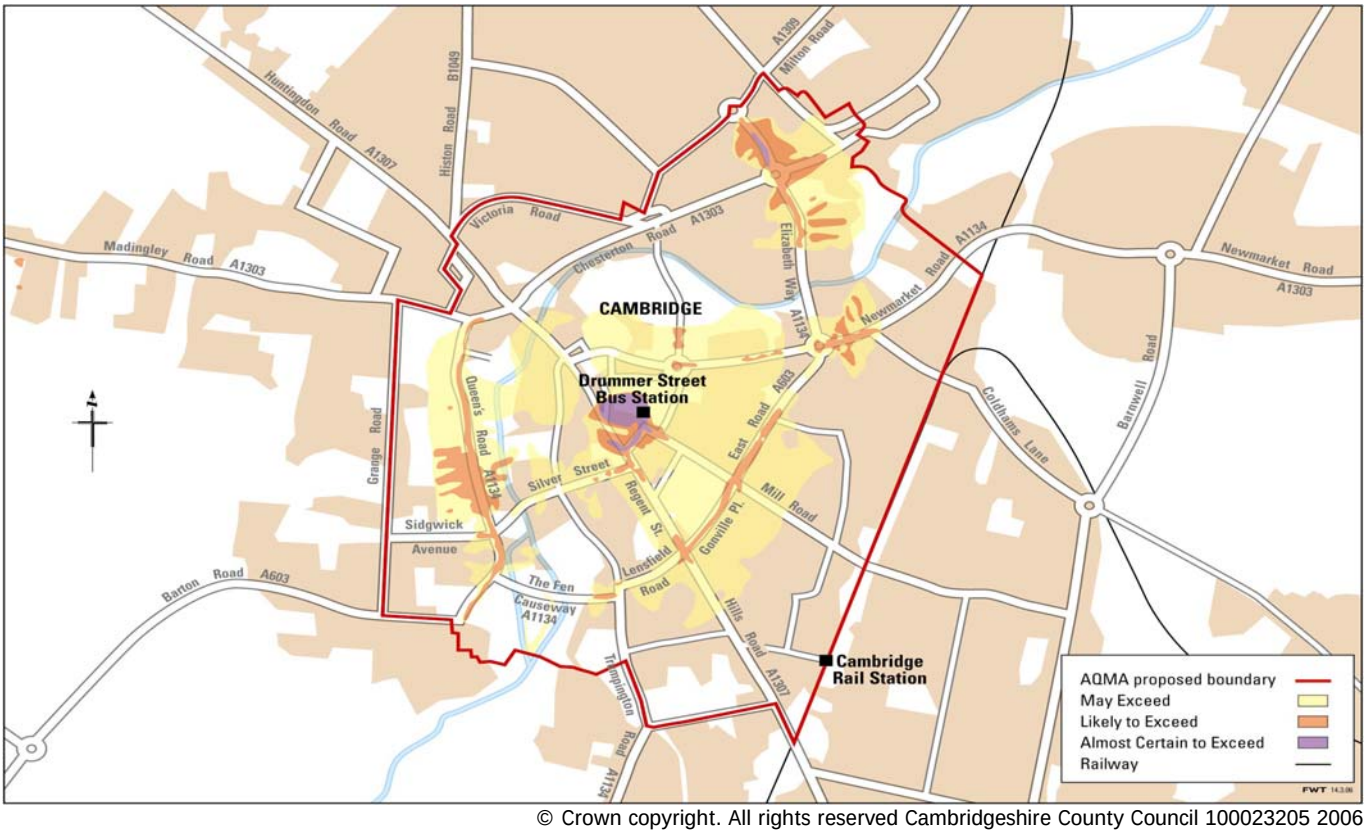
| Location | 2003 | | 2004 | | 2005 | |
|---|---|---|---|---|---|---|
| | Annual mean (μg/m$^3$) | No. of hourly exceedences | Annual mean (μg/m$^3$) | No. of hourly exceedences | Annual mean (μg/m$^3$) | No. of hourly exceedences |
| Parker Street | 53 | 13 | 49 | 0 | 51 | 0 |
| Silver Street | 48 | 13 | 34 | 0 | 34 | 0 |
| Gonville Place | 39 | 0 | 35 | 12 | 48 | 9 |
| Regent Street | 47 | 0 | 42 | 1 | 43 | 0 |
| Newmarket Road | Very low data capture | | 33 | 0 | 30 | 0 |

As a result of the detailed assessment of $NO_2$, an AQMA was declared in August 2004. Figure 6.5 shows this AQMA, which covers the most central areas of the city and the inner ring road / main radial route junctions.

**Figure 6.4** **$NO_2$ data from selected diffusion tubes** (Annual mean objective for 2005 – 40μg/m$^3$)

| | Actual (μg/m$^3$) | | | | | Predicted (μg/m$^3$) | |
|---|---|---|---|---|---|---|---|
| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2010 |
| Cambridge roadside | 48 | 44 | 50 | 56 | 51 | 58 | 50 |
| Cambridge intermediate | 45 | 41 | 45 | 48 | 46 | 42 | 36 |
| Cambridge background | 27 | 27 | 28 | 31 | 28 | 27 | 23 |

**Figure 6.5** **Cambridge $NO_2$ Air Quality Management Area and modelled areas of exceedence**






## Cambridge Air Quality Action Plan

An Action Plan has been agreed by the City and County Councils, and includes the following measures, which also form an integral part of the Cambridge Access Strategy programme as part of this LTP:

The councils are currently identifying the measures that will be needed to implement the Action Plan, and critically, the monitoring and assessment regime that will enable the success of the Action Plan be quantified, both in the context of levels of pollutants, and also in terms of traffic flows and the Growth Agenda. Targets for the Action Plan will be derived from this work; the first, included in this LTP relate to levels of pollutants (AQ2a), and bus emission standards (AQ2b) in the LEZ. Figure 6.7 shows the measures included in the action plan, and the timetable for their implementation.

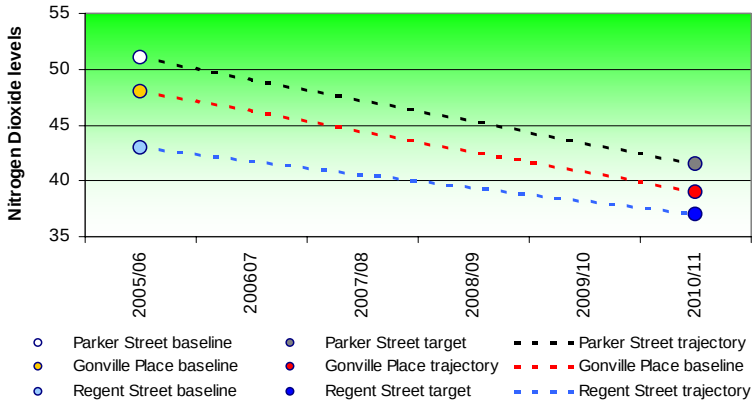
**LTP Indicator AQ2a (LTP8)**
**Target**: To reduce annual mean concentrations of $NO_2$ at the **Parker Street, Gonville Place and Regent Street** monitoring stations to **less than 41.5µg/m$^3$, 39µg/m$^3$** and **37µg/m$^3$** respectively by **2010/11**.

**LTP Indicator AQ2b**
**Target**: **90%** of all Public Service Vehicles entering the Cambridge Low Emission Zone (LEZ) to meet **a minimum of Euro II emission standards** by the end of **January 2009**.

### *Evidence that the targets are both ambitious and realistic*

Indicator **AQ2a** relates to the effects of the measures included in the Action Plan on concentrations of $NO_2$. The reduced concentrations in 2010/11 are based on maintaining current traffic levels, and on the implementation of measures identified in the Cambridge Air Quality Action Plan. The 2010/11 values have been calculated using the year adjustment from LAQM.TG(03) update January 2006 taking account of the revised emission factors.

**Figure 6.6 Indicator AQ1a (LTP8)**




As the highest levels of exceedence are seen around the Drummer Street Bus Station, **AQ2b** focuses on the emission criteria for Public Service Vehicles (PSVs) entering the LEZ. This will be regulated through the use of transponders and through licensing. The aim is to have all PSVs entering the LEZ meeting Euro II emission standards. The target of 90% allows a degree of flexibility in dealing with bus operators to address the target.

### *Key actions of local government needed to achieve the target*

**AQ2a** Undertake the measures identified in the Action Plan and further develop programmes and initiatives to improve air quality as part of ongoing development of the Action Plan and of the LTP.

**AQ2b** To liaise with bus operators, agree their Action Plans, and undertake enforcement action if necessary. To review progress and set updated targets as appropriate with regard to Air Quality guidance and legislation.

### *Key actions of local partners needed to achieve the target*

Bus operators will need to give their drivers an awareness of air quality issues, and maintain their fleets efficiently in order to ensure that emission standards are met. They may need to retrofit vehicles to meet standards or acquire new vehicles. They will also need to produce Operator Action Plans.

### *Principal risks and how they will be managed*

Concentrations of $NO_2$ due to PSVs are likely to be easier to deal with than those caused by the weight of general traffic. It may therefore be more difficult to reduce $NO_2$ levels on Gonville Place, than on Parker Street and Regent Street.

The achievement of target AQ2b may impact negatively on levels of bus patronage, as reflected in targets CON6b and CON6c. It is the intention that setting of the target at 90%, together with the requirement for operator action plans, will give the flexibility needed to minimise this risk.

Air quality problems in the Core Area could be pushed outwards to the inner ring road and radial routes. The target for indicator AQ2a will need to be mindful of projected traffic flows on the inner ring road. LTP indicators CON3 (LTP3), CON4 (LTP4), CON6a (LTP6), CON6b and CON6c all give contextual information against which the effectiveness of the Action Plan and of associated measures implemented as part of the Cambridge Access Strategy can be assessed. The requirement for further actions to address any identified issues will be assessed based on consideration of the impact on all LTP targets relating to transport in Cambridge.

**Figure 6.7 Cambridge Air Quality Action Plan measures**

| Measure | | Timescale |
|---|---|---|
| Low Emission Zone (LEZ) in core area. | A quality bus partnership setting emission criteria for all PSVs entering the Core Area LEZ, regulated by rising bollard transponder entitlement, and permits to use bus stops in the zone. Initial criteria to be Euro II with Reduced Pollution Certification. | Baseline by January 2007, Euro II by January 2009 |
| | 8-year age limit on taxis and private hire vehicles in the zone, with twice-yearly emission testing – regulated by rising bollard transponder entitlement. | 2007 |
| | Expansion of the core traffic scheme to further limit access to the city centre. (Stage 5 subject to public consultation and Member approval). | Stage 4 – 2006-2009<br>Stage 5 – 2008-2010 |
| | A 20mph speed limit in core area. | 2007 |
| Cambridge Local Plan Policy | Technical guide for developers, based around full implementation of PPS23 and National Society for Clean Air (NSCA) Guidance Planning For Clean Air. | Policies already in place |
| | Car parking strictly limited in the Core Area by the City Council adopted car-parking standards. | |
| | Traffic movements generated by new development will be assessed and in accordance with the Area Transport Plans; developers are expected to militate against any adverse impact. | |

| Measure | Timescale |
|---|---|
| Continued support and expansion of the Park & Ride scheme | Cowley Road site relocation 2007/08 |
| Twice yearly Roadside Emission Testing of private vehicles in association with the Vehicle Inspectorate | In place |
| Full implementation of the City Council's Pedestrian and Cycling Strategies. | Throughout LTP period |

### $PM_{10}$ levels in Cambridge

Annual means of $PM_{10}$ recorded in Cambridge were lower in 2004 than 2003 due to less long-range pollution and more dispersive weather. It appears that the objectives will continue to be met, at least until the new objectives come into force in 2010.

## Air quality in East Cambridgeshire

The second Air Quality progress report, published in April 2005, indicates that the national air quality objectives are likely to be met throughout East Cambridgeshire. Although there have been exceedences of the annual mean air quality objective for $NO_2$ in Fordham, 2005 monitoring is indicating that opening of the Fordham bypass has lead to improved air quality and to the objective being met.

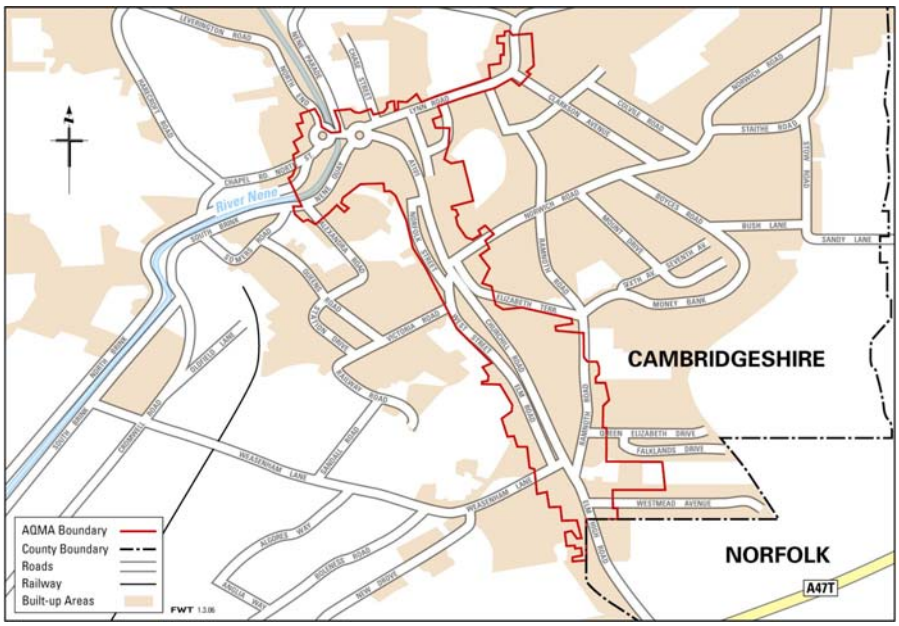
## Air quality in Fenland

There are AQMAs in Wisbech for $SO_2$ and for $PM_{10}$. Both of these are due to solid-fuel boiler plant at Premier Foods' cannery on Lynn Road, whose IPPC permit is currently being determined by the Environment Agency. The company is aiming to fit scrubbers on four of the six boilers in 2006 and the remaining two boilers in 2007. This upgrade of abatement technology is expected to reduce emissions of $PM_{10}$ and $SO_2$ to meet national air quality objectives.

Churchill Road, Lynn Road and other feeder roads onto the Freedom Bridge Roundabout are frequently congested. These sources of $NO_2$ result in high ambient levels at relevant locations such as housing, the North Cambs Hospital, primary schools and Isle College. A Detailed Assessment of this area was completed in September 2005 and submitted to the DEFRA.

The Detailed Assessment was accepted without comment and has resulted in a proposal to declare an AQMA in Wisbech in April 2006. The extent of the area is shown in Figure 6.8. An Action Plan will be developed to deal with the air quality problems in this area, and the county council will seek to set detailed targets relating to any transport interventions required as part of that Action Plan in future LTP Progress Reports.

**Figure 6.8 Wisbech $NO_2$ AQMA**






The modelled area of exceedence extends into Kings Lynn and West Norfolk Borough. Fenland District Council is liaising with Kings Lynn and West Norfolk Borough Council to coordinate monitoring around the County/District boundary. West Norfolk has not needed to declare an AQMA as yet.

## Air quality in Huntingdonshire

Huntingdonshire District Council is a geographically large area in the west of Cambridgeshire. It is centred on a major transport hub where the A14 intersects the A1 and the main railway line from London to the North. It contains the four market towns of Huntingdon, St Ives, St Neots and Ramsey.

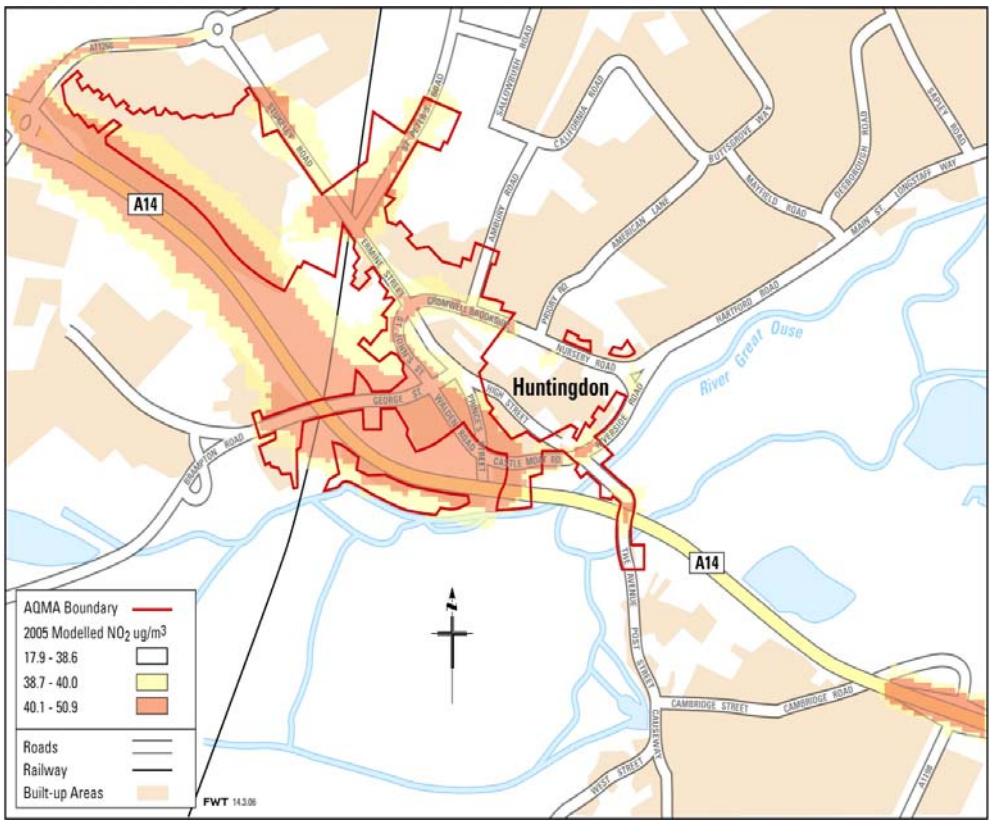
Historically there have not been any significant air quality issues in Huntingdonshire although there has been traffic congestion in Huntingdon and very high traffic flows on the A14 for many years.

In 2003 the weather patterns gave rise to particularly poor dispersion of air pollutants and this resulted in higher concentrations of traffic pollutants than had been previously measured. Following 2003 it was recognised that the

annual mean objective for $NO_2$ may be exceeded and the Council proceeded to carry out a detailed assessment of the pollutant in Huntingdon and St Neots. Following completion of the detailed assessment Air Quality Management Areas were declared in these two towns in November 2005. The area in Huntingdon includes much of the inner ring road and the west of the town close to the A14. The area in St Neots is limited to a small area of the High Street. The two areas are shown in Figures 6.9 and 6.11.

During the detailed assessment it became clear that the annual mean objective for $NO_2$ may be exceeded in other areas of the District and seven additional areas were identified for further study. This further study is now largely complete and it is likely that two additional AQMAs will be declared for the pollutant, adjacent to trunk roads in Brampton and Fenstanton, as shown in Figure 6.1. The extent of these areas will be described in Huntingdonshire's Air Quality Updating and Screening, which will be published at the end of April 2006. The resulting AQMAs are likely to be declared in summer 2006.

**Figure 6.9 Huntingdon $NO_2$ AQMA and modelled areas of exceedence**






Huntingdonshire operates three real-time $NO_x$ analysers and deploys 27 $NO_2$ diffusion tubes on a monthly basis. The $NO_x$ analyser located in the High Street, St Neots was new in 2005 and so there is no trend data available for this site. Trend data for the analysers at Huntingdon and Godmanchester are shown in Figure 6.10.

**Figure 6.10 $NO_2$ levels at monitoring sites in Huntingdon** (Annual mean objectives for 2005 – 40μg/m$^3$, one hour mean objective – 200μg/m$^3$ not to be exceeded more than 18 times a year)

| Location | 2003 | | 2004 | | 2005 | |
|---|---|---|---|---|---|---|
| | Annual mean (μg/m$^3$) | No. of hourly exceedences | Annual mean (μg/m$^3$) | No. of hourly exceedences | Annual mean (μg/m$^3$) | No. of hourly exceedences |
| Pathfinder House | 49 | 0 | 44 | 0 | 35 | 0 |
| Godmanchester | 40 | 0 | 30 | 0 | 28 | 0 |

**Figure 6.11 St Neots $NO_2$ AQMA and modelled areas of exceedence**

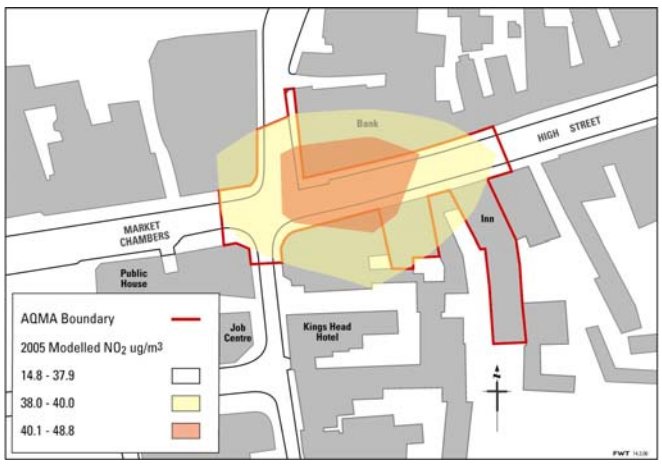





**Figure 6.12 $NO_2$ data for High Street St Neots (Annual mean objective for 2005 – 40 g/m$^3$)**

| | Annual mean $NO_2$ levels (μg/m$^3$) | | | | | |
|---|---|---|---|---|---|---|
| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| High Street, St Neots roadside | 41 | 39 | 41 | 46 | 38 | 42 |
| St. Neots background | 23 | 23 | 25 | 26 | 24 | 25 |

There is an established $NO_2$ diffusion tube site in the High Street at St Neots and there is also an established St Neots background site. Trend data for these sites is shown in Figure 6.12. Air Quality Action Plans are being developed for the Huntingdon and St Neots AQMAs, and the County and District councils will seek to set targets relating to transport interventions required as part of the Action Plans. Given the timescales involved,

it is hoped that funding for these AQMAs through the LTP process will be available from 2007/08 onwards, coincident with the adoption of the Action Plans by the Councils.

**LTP Indicators AQ3a (LTP8) and AQ3b**
**Target**: To be set following agreement of Huntingdon $NO_2$ Action Plan by Huntingdonshire District Council.

**LTP Indicators AQ4a (LTP8) and AQ4b**
**Target**: To be set following agreement of St Neots $NO_2$ Action Plan by Huntingdonshire District Council.

**LTP Indicators AQ5a (LTP8) and AQ5b**
**Target**: To be set following agreement of Wisbech $NO_2$ Action Plan by Fenland District Council.

***Evidence that the targets are both ambitious and realistic***
Indicators AQ3a, AQ4a and AQ5a will relate to concentrations of $NO_2$ based on predicted future progress and the effects of the measures included in the Action Plans for Huntingdon, St Neots and Wisbech.

Indicators AQ3b, AQ4b and AQ5b are likely to be contributory output indicators focusing on specific transport interventions identified as part of the Action Plans for Huntingdon, St Neots and Wisbech.

***Key actions of local government needed to achieve the target***
Local government will need to undertake measures identified in the Action Plans and further develop programmes and initiatives to improve air quality as part of ongoing development of the Action Plans and of the LTP.

***Key actions of local partners needed to achieve target***
Continued partnership working with Huntingdonshire District Council. Action Plans may identify further necessary interventions.

Funding from the Integrated Transport block allocation being available at time Action Plans are adopted, in 2007/08 financial year

***Principal risks and how they will be managed***
The presence of the A14 Trunk Road through Huntingdon will make achieving improvements in some areas difficult and, if the alternative of maintaining this section of route through Huntingdon as part of the overall A14 Ellington–Fen Ditton improvements is chosen, will remain a problem in the period post 2010–15.

The constrained road network in the centre of St. Neots may prove problematic when addressing very site-specific problems as it could cause problems elsewhere. Targeting measures to achieve modal change may be the most appropriate solution.

Development pressures in Huntingdon and St Neots will lead to increased travel demand. Significant investment in sustainable modes of transport and changes in travel patterns required if further air quality problems are to be avoided.

Indicators CON3 (LTP3), CON4 (LTP4) and CON7 will all give contextual information against which the effectiveness of the Action Plan can be assessed.

# Air quality in South Cambridgeshire

Air quality monitoring in 2003 highlighted that the air quality objectives for $NO_2$ and $PM_{10}$ were at risk along the A14 corridor in South Cambridgeshire and that congestion may be contributing to problems in two village centres putting the objective for $NO_2$ at risk in Sawston and Histon. These areas have been subject to detailed assessment to determine the risk of exceeding the national air quality objectives.

Objective: To conserve energy and reduce air pollution by limiting the growth in traffic and reducing the environmental impact of travel.
*South Cambridgeshire Local Plan*

## Detailed Assessment Study Area 1 – A14 Corridor

Many sections of the A14 are currently operating close to capacity and up to 25% of the traffic is heavy goods vehicles, which is twice the national average for this type of road. The road is subject to severe congestion on a regular basis, particularly during peak hours. The detailed assessment for the A14 is currently being undertaken and will look at the stretch from Fenstanton to Fen Ditton (see Figure 6.1).

The decision to proceed to a detailed assessment arose from results obtained following continuous monitoring for $NO_2$ and $PM_{10}$ at roadside sites along the A14 at Bar Hill and Impington. Results from these monitors for 2003, 2004 and 2005 are shown in Figure 6.13. Whilst there is limited exposure in such close proximity to the A14 there are several occupied properties within 30 metres of the kerbside of this stretch of road that may potentially be affected.

**Figure 6.13** **$NO_2$ levels at monitoring sites on A14** (Annual mean objectives for 2005 – 40μg/m$^3$, one hour mean objective – 200μg/m$^3$ not to be exceeded more than 18 times a year)

| Location | 2003 | | 2004 | | 2005 | |
|---|---|---|---|---|---|---|
| | Annual mean (μg/m$^3$) | No. of hourly exceedences | Annual mean (μg/m$^3$) | No. of hourly exceedences | Annual mean (μg/m$^3$) | No. of hourly exceedences |
| A14 Bar Hill | 49.7 | 0 | 46 | 0 | 42 | 0 |
| A14 Impington | 52.2 | 134 | 41.3 | 45 | 31 | 1 |

The number of hourly exceedences recorded at Impington in 2003 was 134; this was second in the UK only to London's Marylebone Road monitoring station. The 2004 result is much lower but still exceeded the objective of 18 exceedences. In 2005 there was only one hourly exceedence. As Figure 6.14 shows, the annual objectives for $PM_{10}$ at both locations were not exceeded in 2005; however, the objective for daily exceedences was not met at Impington.

## Detailed Assessment Study Area 2 – Histon

Histon village, one of the larger villages in South Cambridgeshire, is located to the north of the A14 and Cambridge. Traffic though the village at peak periods can cause congestion particularly on the narrow roads through the centre. A potential exceedence of the $NO_2$ objectives was identified using predictions from diffusion tubes based on the 2003 exposure period. However, the detailed assessment which has now been carried out has revised these predictions and it is no longer expected that there will be exceedences of the $NO_2$ objectives in the Histon study area This is further evidenced by the downturn in measured concentrations observed in 2004. Nevertheless any projects involving traffic movement through the village, including traffic calming will be assessed for implications on air quality to prevent the situation deteriorating.

**Figure 6.14** **$PM_{10}$ levels at monitoring sites on A14 in 2005** (Annual mean objectives for 2005 – 40μg/m$^3$, daily mean objective – 50μg/m$^3$ not to be exceeded more than 35 times a year)

| Location | Annual mean (μg/m$^3$) | No. of daily exceedences | Data Capture |
|---|---|---|---|
| A14 Bar Hill | 22 | 25 | 92.9% |
| A14 Impington | 39 | 37 (in six months) | 43.9% |

## Detailed Assessment Study Area 3 – Sawston

Sawston village, the largest village in South Cambridgeshire, is located to the south of Cambridge and east of the M11. Despite benefiting from a bypass, traffic along the narrow roads through the village at peak periods can cause congestion. A potential exceedence of the $NO_2$ objectives was identified using predictions from diffusion tubes based on the 2003 exposure period. However, the detailed assessment which has now been carried out has revised these predictions and it is marginal that there will be exceedences of the $NO_2$ objectives in the Sawston study area, this is further evidenced by the downturn in measured concentrations observed in 2004. Nevertheless because of uncertainties with the traffic data used for these assessments any projects involving traffic movement through the village, including traffic calming, should be assessed for implications on air quality to prevent the situation deteriorating.

**Figure 6.15** **Annual mean $NO_2$ concentrations, Histon**

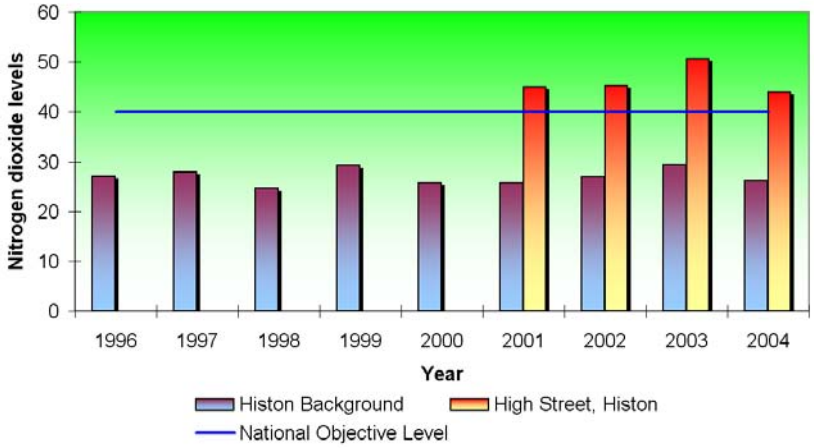
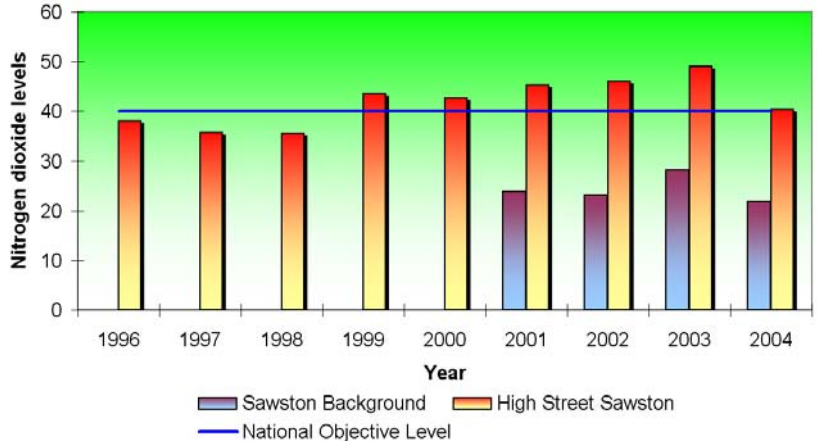



**Figure 6.16** **Annual mean $NO_2$ concentrations, Sawston**




## Timetable for development of Air Quality Action Plans

Air Quality Action Plans are required to be in place no later than 18 months after the declaration of an AQMA. Figure 6.17 shows the stage of development of the Action Plans for the four current transport related AQMAs in Cambridgeshire.

**Figure 6.17 Current AQMA Action Plan status**

| District | AQMA / Possible future AQMA | Pollutant | AQMA declared | Action Plan status | LTP funding available |
|---|---|---|---|---|---|
| Cambridge | Cambridge city centre | $NO_2$ | **August 2004** | Action Plan adopted in August 2005 | 2006/07 |
| Fenland | Lynn Road / Churchill Road, Wisbech | $NO_2$ | **April 2006** | To be adopted by October 2007 | 2007/08 |
| Huntingdonshire | Huntingdon town centre and A14 | $NO_2$ | **November 2005** | To be adopted by May 2007 | 2007/08 |
| | St. Neots town centre | $NO_2$ | | | |

Government had indicated that LTP funding would be allocated to new AQMAs as they were declared. However, it has been suggested that this adjustment may not be made until 2008/09. It is hoped that the additional LTP funding required to implement the action plans in Wisbech, Huntingdon and St Neots will be available in 2007/08, as any delay in the provision of this funding will delay the implementation of the Action Plans by a year.

## Future developments

In response to the European Commission's Air Quality Framework Directive 1 and the associated First Daughter Directive 2, DEFRA commissioned consultants to consider the implications of various options to reduce emissions of $NO_2$ and $PM_{10}$. The report (entitled 'The Technical and Non-technical Options to Reduce Emissions of Air Pollutants from Road Transport[9]') details the likely costs and benefits of a number of strategies and scenarios. For the period 2005-10, which approximates to the period of this LTP, two separate priority lists for further study were produced

Based on the results of the cost-benefit analysis:

1. Increased uptake of low emission passenger cars
2. Revised speed policy for motorways close to urban areas
3. Low Emission Zones

Based on a Multi-Criteria Analysis approach:

1. Scrappage scheme for pre-Euro and Euro 1 passenger cars
2. Retrofit Selective Catalytic Reduction (with diesel particulate filter) for heavy-duty vehicles
3. Increased uptake of low emission passenger cars

Low emission zones, such as the one proposed for Cambridge, is the only one of these options that falls within the direct remit of the LTP. However, we will promote the other priority areas through avenues such as our engagement with businesses as part of the Cambridgeshire Travel for Work Partnership, and will consider further to identify areas where particular benefits might be gained in Cambridgeshire, and where these will or could fall under the remit of our Full LTP programme to deliver or facilitate.

## Conclusion

In Cambridgeshire, the continued rise in traffic combined with future population growth could exacerbate existing problems of air pollution. The designation of Air Quality Management Areas means that each district will have to develop its own actions based on the broad strategy that the Air Quality Partnership developed (included in LTP1). Where possible, the partnership will be looking to include the prioritised options based on results of recent technical guidance cost-benefit analysis.

Six AQMAs have been designated in the county. Two in Wisbech, for $SO_2$ and $PM_{10}$, are the result of emissions from an industrial process. The other four are for $NO_2$, in Cambridge, Huntingdon, St Neots and Wisbech, the main source of this pollutant being traffic.

The countywide air quality strategy suggests measures for improving air quality. Some can be implemented countywide while others are more appropriate for implementation in certain areas. There have already been developments, such as the Fordham by-pass and implementation of 'Smarter Travel Management', which have the potential to maintain and improve air quality.

**Appendix 10** contains further technical details for each district with regard to transport related air quality problems with $NO_2$ and $PM_{10}$, together with maps showing the locations of monitoring points in each district.

[9] See http://www.airquality.co.uk/archive/reports/cat09/0504061608_ED48300_04-04-05.pdf

# 7 Congestion

This chapter outlines how our strategy will contribute towards reducing congestion. It goes on to describe how our strategy will have beneficial effects on the quality of life in a wider context; and details the indicators and targets we have adopted to monitor congestion.

## Tackling congestion in Cambridgeshire

As shown in the analysis contained in Chapter 2, the majority of congestion in Cambridgeshire can be attributed to increases in through traffic and the high levels of economic growth in and around Cambridge and the market towns. Our strategy therefore identifies a series of measures to be implemented along transport corridors (where much of the growth in through traffic is taking place) and in urban areas to help tackle congestion and provide for the increased travel demand that the county will experience in the period of this LTP. These are set out in the following sections, which detail how individual modes, strategies and proposals will provide congestion relief and help us to meet our targets and objectives.

### Buses

Attracting motorists onto public transport, particularly buses, is essential to tackling congestion, especially where walking or cycling is inappropriate or impossible. The provision of high quality services is essential to encourage motorists out of their cars.

Cambridgeshire is one of the few parts of the country, outside of London, where bus use is growing. We want to ensure that this growth continues. To this end, we produced a Bus Strategy in 2001 (see **Appendix 6**), which forms an integral part of our approach to reducing congestion. The approach we will take to deliver this strategy is summarised below and shown in Figure 5.7 (page 58). This figure shows urban areas and corridors and divides rural parts of the county into discrete areas.

> While difficult economically, more funding of public transport and more control of buses would be a high priority.
>
> *LTP consultation response*

#### Along transport corridors

Within the limits of known funding, we will aim to establish high quality public transport corridors with, where possible, bus frequencies of 15 minutes or greater, with the greatest frequencies being in or near to the urban areas as this is where congestion is the most severe. Where this is not achievable, we will aim to provide bus frequencies of half-hourly or better. This will be achieved through working closely with bus operators, and through the provision of a number of complementary measures designed to promote public transport use and thus increase provision. These measures will make a significant contribution towards our targets for increasing bus patronage, and include the following.

**Figure 7.1 Programme for bus corridor improvements**

| Corridor | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 |
|---|---|---|---|---|---|
| A428 Cambridge – St. Neots | ✓ | | | | |
| A10 Cambridge - Ely | | ✓ | ✓ | | |
| A1307 Haverhill – Cambridge | | | | ✓ | |
| A1301 Cambridge – Saffron Walden | | | | | ✓ |

- Bus priority measures along those sections of the transport corridors where congestion is the most severe.
- Real Time Bus Information and improvements to other bus information.
- Improved waiting and interchange facilities, including bus shelters, drop-off points (where a car can safely pull over and drop-off passengers) and secure cycle-parking facilities at bus stops and interchanges.
- Raising kerbs and hard standings at bus stops to make it easier to get on to low floor buses.

We have already introduced some of these improvements along the A141 between Huntingdon and March, to complement the North Huntingdonshire Key Network that has been in operation since October 2001. This network, based on a Quality Partnership with Cavalier Travel, provides integrated bus services – linking villages to corridors and major towns in the area covered – with guaranteed connections at interchange points. A Quality Partnership is also in place with Norfolk Green for services between March and Wisbech. Further improvements to bus interchanges may take place in Chatteris and Warboys. This approach will be adopted for other key corridors in the county and will help to reduce congestion and promote sustainable and prosperous communities.

Additionally, corridor improvements will be implemented along the A10 (north), A428, A1307 and A1301 as shown in Figure 7.1. On the A10 and A428 these works will include the following measures.

***Along the A10 Ely - Cambridge:***

- Enhanced service frequencies from Cottenham and Histon on the B1049 (see Kickstart, page 75)
- Scheduled or demand responsive services from villages such as Haddenham, Witcham, Wilburton to Stretham

- Scheduled or demand responsive services to March, Littleport and Ely stations
- Bus priority measures on the A10 towards the A14 and at the A14 B1049 junction
- Develop an interchange to the Guided Busway at Histon
- High quality rural interchange at Stretham
- Develop a rural Park & Ride site north of Cambridge but south of Ely

***Along the A428 St Neots - Cambridge:***

- Work with operators to increase peak time services from St Neots to a 15 minute frequency
- Develop feeder services to Cambourne from villages north of the A428 with guaranteed connections
- Establish a separate Papworth Everard service as development proceeds
- Reroute services via Madingley village using bus gate to reduce peak time delays
- Consider bus priority measures at Hardwick roundabout inbound during the morning peak
- Develop a high quality interchange at Cambourne
- Introduce a rural Park & Ride facility at St Neots (if funding from development allows)

Funding towards this programme of improvements from LTP budgets is detailed in Chapter 12.

**LTP Indicator CON1 (BV102)**
**Target:** More than **22.5 million** bus boardings in Cambridgeshire in **2010/11**

***Evidence that the target is both ambitious and realistic***
Both the target and trajectory take account of recent high levels of growth in bus patronage in Cambridge, and moderate increases seen in the market towns. Forecast population growth and planned development in Cambridge, Northstowe and the market towns will support growth in bus patronage. Population is expected to increase by 7% by 2011; the target for countywide bus patronage is for 33.8% growth by 2011. The tendency for bus operators to centralise services on more profitable routes will lead to patronage growth on corridor routes. The allocation of £3.8m from LTP budgets towards bus priority measures, and £2.4m towards corridor bus schemes will encourage more bus use and helps to ensure this target remains realistic.

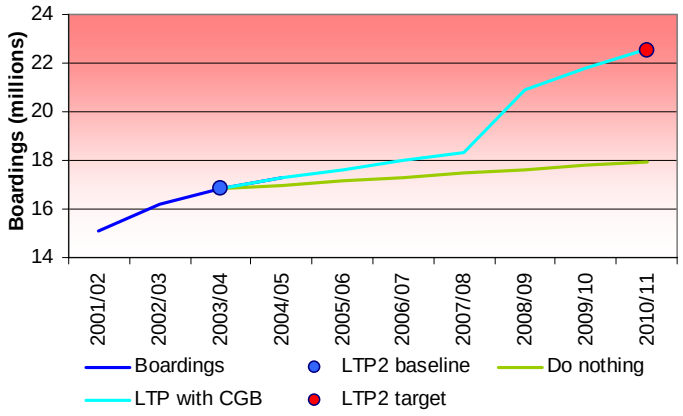
The award of £2.48 million as part of the Kickstart Initiative to improve bus services across the county is essential to this indicator. The service improvements funded through Kickstart will contribute to 2.029 million additional trips by 2008/09, leading to approximately 47% growth in patronage on the Citi 7 service and 32% growth on the Citi 4 service. Similar interventions have resulted in a 54% increase in patronage over four years along the A1307 between Haverhill and Cambridge, therefore 33.8% growth over five years is realistic yet challenging. The implementation of the Cambridgeshire Guided Busway in time for the new Northstowe development will also be a key factor in meeting this target.

***Key actions of local government needed to achieve the target***

- Timely implementation of the Cambridgeshire Guided Busway by 2008
- Further bus priority measures
- Corridor improvements along the A10 (north) and A428
- Real Time Bus Information (see Figure 7.10)
- Demand management measures
- Smart cards

***Key actions of local partners needed to achieve target***
Improvements to service frequencies through Kickstart and other initiatives, and commitment to providing reliable services by bus operators are essential to meeting this target. Operators also need to improve the quality of their vehicles by introducing new low floor buses. Up to date and accurate information is also important to achieving this target.

**Figure 7.2 Indicator CON1 (BV102)***




*See also Chapter 12, page 153.

***Principal risks and how they will be managed***
Failure to implement CGB, or delays to its implementation, would be a major risk to the achievement of the target. Rigorous project management will minimise the scope for delay.

- CGB not having the anticipated impact on patronage poses a further risk to this target. This risk will be mitigated by joint working with bus operators to promote the service, and by ensuring that bus priority measures are in place.
- The failure of bus operators to deliver all of the required improvements, and delays to completion of bus priorities and corridor improvements, would present challenges to meeting this target. Monitoring of progress and continued partnership working will minimise these risks.
- Delays to improvements to the A428 trunk road could also impact on this target. Working closely with the Highways Agency will help to reduce this risk.
- Insufficient funding for bus improvements would have a significant effect on this target. This risk will be reduced by trying to secure additional funding through Section 106 Agreements, Growth Area funding and increased LTP allocations.

**LTP Indicator CON6c**
**Target:** More than **62,400** passengers per day using Cambridge bus services* in **2010/11**.

**LTP Indicator CON6c LPSA**
**Target:** More than **56,000** passengers per day using Cambridge bus services* in **2006/07**.
* entering/leaving the Cambridge outer radial cordon & single bus journeys on services within but not crossing the cordon

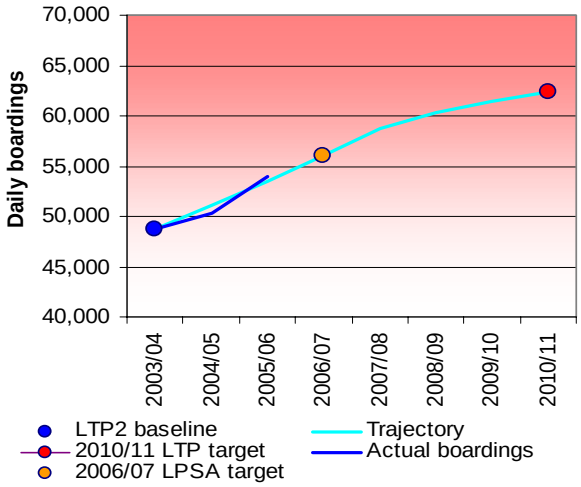
***Evidence that the target is both ambitious and realistic***
Target and trajectory take account of recent growth in bus patronage in Cambridge. Additional service improvements to local bus services as part of the Kickstart award, improved infrastructure and further demand management measures will lead to considerable increases in patronage. Forecast population growth will also result in small increases in bus patronage within the city, while new developments on the fringes of the city will further contribute to this target. New bus priority measures on radial routes into the city will improve the reliability of bus services and therefore lead to patronage increases. Service improvements as part of the Kickstart scheme are predicted to lead to a 20% increase in patronage on the Citi 2 route, with 32% growth predicted on the Citi 4 service. Similar improvements have resulted in a 45% increase in patronage on the Stagecoach Citi network in the last four years.

***Key actions of local government needed to achieve target***
- Continued partnership working with bus operators to increase frequency of services within and into the city.
- Improved passenger information including Real Time Bus Information (RTBI) and SMS text messaging.
- Introduction of a Smart card scheme.
- Infrastructure improvements on key transport corridors, and in city centre.
- Partnership working with bus companies to introduce branded services that interconnect reliably, improving travel times in strategic areas.
- Extensions to the Cambridge Core Traffic Scheme
- The introduction of Cambridgeshire Guided Busway.

***Key actions of local partners needed to achieve target***
- Stagecoach marketing plans to offer innovative ticketing options/incentives to new passengers.
- Use of RTBI fleet management functionality to improve reliability, a key driver of patronage.
- New and improved services also play a vital role in contributing to increased patronage.

***Principal risks and how they will be managed***
- Stagecoach service expansion plans not being realised as quickly or extensively as envisaged. Partnership working and communication with bus operators will help reduce the risks to meeting this target.
- Capital and revenue funding to implement and support RTBI, Smartcard, improved bus infrastructure and marketing and publicity programmes may not be available within the required timescale. Securing additional funding for these improvements through Section 106 Agreements and growth area funding will help to ensure the required funds are in place.
- Revenue budget reductions leading to withdrawal of sponsored services, impacting patronage directly (reduced journeys) and indirectly (bad publicity). This risk will be managed by using Accession to ensure subsidised services are targeted at services with the highest levels of patronage.
- Delays to the implementation of CGB would present a challenge to meeting this target. This will be managed by thorough project management and close working with contractors.

**Figure 7.3 Indicator CON6c**




## In urban areas

We will continue with our programme of improvements to bus services in urban areas and surrounding villages in order to promote the use of sustainable transport and reduce congestion. Measures will include infrastructure and quality improvements, such as new bus priority measures and improved services delivered through quality partnerships with bus companies. In addition, we will improve integration between buses and rail in the urban areas through the provision of new facilities for bus interchange at railway stations. We will also support the provision of targeted information for residents of new communities in order to promote and increase bus use.

One of the effects of this approach within Cambridge will be an increase in buses – of up to 40% by 2011 – entering and leaving the city. To accommodate this increase we will improve bus capacity within the city centre. This will include moving long-distance coach parking from Drummer Street bus station, improvement to the on-street management of central area bus stops and infrastructure measures within the city centre itself.

Our programme also includes the setting up a Low Emissions Zone as part of the Cambridge Air Quality Action Plan (see Chapter 6). This initiative will help to improve quality of life, as reduced emissions will help to deliver healthy communities. In addition to this, we will introduce several bus priority measure schemes to improve reliability and reduce journey times of bus services on the following routes within Cambridge:

- Milton Road (link to A10 Ely – Cambridge corridor and to CGB)
- Newmarket Road (link to A1303 Newmarket – Cambridge corridor)
- Madingley Road (link to A428 St Neots – Cambridge corridor)
- Station Road

In Huntingdon, a contra flow bus lane and junction modifications will be introduced on Walden Street / George Street, as the first stage of a package of bus priority measures between Huntingdon and St Ives. Further detail of schemes in this package can be found in Chapter 12 (page 147).

Shift modal split from cars to more sustainable modes of transport.

*Cambridgeshire and Peterborough Structure Plan*

Other measures to be implemented within the urban areas will include further bus priority measures in the period 2009-2011, Real Time Bus Information, new lay-bys and new bus shelters.

## Partnership working to implement the bus strategy

We have a successful record of working in partnership with local bus operators, both through our Strategic Bus Partnership, which includes representatives from all of the bus operators in the county and from the district and county council, and with individual bus operators as appropriate. We will continue with this approach, both to optimise existing services and to prepare for future improvements, especially those that support the Growth Agenda, thus providing value for money. In particular, we are working with the bus companies to develop business cases for all of the transport corridors, looking at the potential patronage and benefits to bus operators of each route.

**LTP Indicator CON5a (LTP5)**
**Target:** At least **90%** of bus services to start no more than 1 minute early or 5 minutes late, and to arrive at intermediate timing points no more than 1 minute early or 5 minutes late by **2010/11**.

**LTP Indicator CON5b (LTP5)**
**Target:** To improve **year on year punctuality of bus services arriving at intermediate timing points** in the period to **2010/11.**

**LTP Indicator CON5c (LTP5)**
**Target:** To reduce **excess waiting time for frequent bus services, year on year**, in the period to **2010/11.**

***Evidence that the targets are both ambitious and realistic***
The targets we have set for these indicators equate to the national targets as detailed in government guidance. At the time of publication of this LTP there is not robust data on bus reliability available. In 2006/07, the introduction of GPS based Real Time Bus Information will address this shortcoming. The baseline year for these targets will therefore be 2006/07. While it is not our intention to adjust this target unnecessarily, analysis of robust punctuality data may indicate areas of services where specific further interventions or modifications to the targets are required. Our final targets and trajectories will reflect the current reliability of bus services in Cambridgeshire, the predicted increase in the number of bus services and future traffic growth.

***Key actions of local government needed to achieve the targets***
The implementation of bus priority measures, off vehicle ticketing and smart cards are important to the achievement of this target. The extension to the core traffic scheme and further demand management measures are also important as these schemes will reduce the number of cars in the centre of Cambridge, making bus journeys more reliable. The implementation of CGB will improve bus reliability on the Huntingdon – Cambridge corridor.

***Key actions of local partners needed to achieve the targets***
Bus operators will have to share punctuality data with the council to identify trouble spots on routes, and to plan and implement remedial action. Continued close working with the council to progress smart cards/off-vehicle ticketing.

***Principal risks and how they will be managed***
The main risks to the achievement of these targets are the failure to implement the required bus priority measures and off-vehicle ticketing services and the potential failure of bus companies to provide improved services and management of those services. Higher than anticipated traffic growth would also impact on the achievement of this target.

We plan to introduce formal Bus Quality Partnerships along corridors where the business case shows that this is necessary and continue to introduce ‘informal’ bus quality partnerships so as to co-ordinate infrastructure improvements with the introduction of new high quality services.

In terms of the Growth Agenda, we are negotiating with the bus companies with the view to introducing significantly improved bus services to help to meet the extra travel demands arising from growth.

### Bus punctuality

Bus punctuality is affected by the management of the road network as well as the actions of operators. We will, in partnership with local bus operators aim to improve bus punctuality. Initiatives that will be brought forward include the following.

- the establishment of a local Bus Punctuality Improvement Partnership, enabling the local authority and operators to co-operatively address the root causes of delays
- the use of Real Time Bus Information to identify where delays occur.

### Kickstart

Over the past few years there has been major growth in bus patronage in Cambridge, with around 45% growth on the Stagecoach Citi network since 2001. In order to ensure that bus patronage increases further, the county council and Stagecoach continue to work together to take forward additional improvements to bus services and infrastructure. In recognition of this successful partnership and the exceptional increase in bus patronage, the Government has awarded £2.48 million for a package of measures to improve bus services across Cambridgeshire as part of the Kickstart initiative. The main aims of the proposals are to tackle congestion, improve frequency and reliability of public transport and encourage modal shift.

The funding will be targeted to improve specific routes in rural areas and in Cambridge, and will take account of new communities. This will include implementing long-term transport solutions to help solve current and future traffic problems as new developments are built. Improvements will build on Stagecoach's investment of £2 million in new double-decker vehicles on the Citi 1 route in Cambridge. It is anticipated that these improvements will lead to 25% growth in patronage in Cambridgeshire over the three year Kickstart period, contributing significantly to our objectives for increasing sustainable travel, reducing congestion and improving accessibility.

Specific improvements to services in phase 1 (2006/07 onwards) include the following.

- Extend the Citi 2 route to Milton, thereby providing a 10 minute service from Addenbrooke's to Milton via the city centre, serving future housing developments at Cambridge southern and northern fringe
- New Citi 4 route from Cambridge to Cambourne with a 20 minute frequency serving the growth in Cambourne and providing opportunities for out-commuting
- New service from Cambridge to Peterborough via Ely and March to capture additional commuting to Peterborough and improve bus services in Ely, March and Chatteris. Corridor improvements to the A10 north will enhance the attractiveness of this service
- Double the frequency of the Citi 7 service between Duxford and Cottenham to every 10 minutes providing a frequent service along this radial route into the city
- Enhancements to services between Cambridge, Newmarket, Soham and Bury St Edmunds, serving new housing development in Soham and increased job opportunities in Newmarket

These improvements are expected to generate an additional 2.029 million trips over the three year Kickstart period, making a significant contribution towards the achievement of our targets to increase bus patronage. See pages 72 and 73 for further details. The proposals offer good value for money as these services will become commercially viable after the Kickstart funding proposal.

To complement the above service improvements the following measures will be introduced by the county council.

- Improvements to bus stops, including raised kerbs and shelters
- Additional bus priority measures
- Real Time Bus Information
- Further demand management measures to increase capacity for additional buses in Cambridge

Measures that may be introduced jointly include the following.

- Improvements to bus punctuality
- Ongoing sales and marketing campaigns
- Feeder services from rural areas to main interchanges

Combined, these services will significantly improve the level of bus services across the county, providing a high quality alternative to the private car.

Further benefits of the initiative include:

- Improved air quality through emission reduction from fewer private car journeys, coupled with Stagecoach Citi buses being Euro lll compliant by 2006
- Services in place for housing development areas prior to housing being built, and capacity for further growth as housing accelerates post 2007
- Contribution to congestion management through modal shift from car to bus
- Conditions to underpin the introduction of further demand management measures in Cambridge

## Long-distance buses

Long-distance buses provide connections between our market towns, Cambridge and the rest of the country. They also support and enhance rail services. In terms of our strategy, they are particularly important because of the contribution they make to enhancing services and frequencies along the transport corridors. They are provided on a commercial basis, and provide a vital service to tourists, students and those on low incomes.

A study undertaken by the county council has shown that the number of buses using Cambridge city centre will increase by 40% by 2011. To accommodate this growth, the present long distance coach stops in Drummer Street will be relocated to Parkside. This will reduce the number of vehicles coming into the city and laying over for long periods, a major cause of congestion and pollution in the area, and will allow more space for local buses. The council's long-term vision is for long-distance buses to operate from the railway station.

## Rail

Rail has a vital role to play in reducing congestion. Encouraging more people to use rail instead of the private car will contribute towards the achievement of our targets for controlling the number of vehicles entering and leaving Cambridge. Increased rail travel will also help to support economic growth and can benefit the environment.

To promote rail services in Cambridgeshire and to help to meet our congestion targets by providing rail facilities close to major centres of employment, we are in the process of preparing a bid for a new station at Chesterton. This scheme, described in more detail in Chapter 11 will make a significant contribution to meeting our congestion targets.

Unfortunately, apart from this initiative, there is little possibility of enhancing rail infrastructure in the time period of this LTP. We will seek to increase patronage on rail services and to promote new services – such as Thames Link 2000 – in conjunction with the Strategic Rail Authority (SRA)/Department for Transport (DfT) and the Train Operating Companies. However, we recognise that, with the exception of a new station and interchange at Chesterton (reported in Chapter 11), there is little possibility of enhancing rail infrastructure in the short term. Nevertheless, we will continue to work with the rail industry to develop rail services, taking account of current national rail policies and the availability of funding.

We will:

- continue to work with the SRA/DfT and with the train operating companies to provide improvements to rail services
- promote the introduction of new rail services and greater frequency of service on existing routes
- promote the use of rail through travel awareness schemes and through involving people in rail groups
- integrate rail with other transport modes through the Market Town Strategies, such as the Huntingdon bus/rail interchange jointly funded by Huntingdonshire District Council and Cambridgeshire County Council
- integrate rail with other transport modes in Cambridge, including via a new interchange at Chesterton, and through improved bus, pedestrian and cycle interchange at and access to Cambridge Station
- continue with a programme of minor improvements using LTP funding, which includes improving signing, cycle parking, and management of station car parking.

Our Rail Strategy is included in **Appendix 6** or this LTP.

> Interchange facilities between bus and rail should be improved and promoted.
>
> *LTP consultation response*

## Interchanges

Key to reducing congestion is the provision of interchanges to ease transfer between modes and encourage the use of sustainable transport. High quality interchanges are essential to encouraging more people to use public transport; and will also have a positive impact on community safety, personal security and the fear of crime.

We will work in partnership with District Councils and operators to provide new interchange facilities to make the connections between the three strategy areas of urban, rural and corridors, linking frequent bus services along corridors. We will also seek contributions through development and other sources to complement capital funding for interchange facilities.

## Cycling

> Objective: Active, safe and healthy communities.
>
> *South Cambridgeshire Community Strategy*

As the analysis in Chapter 2 shows, increasing the number of trips made by cycle, particularly for shorter trips, is essential to reducing congestion in urban areas. More than 40% of trips are under two miles, and a quarter of car journeys are less than two miles. Encouraging cycling for some of these shorter trips will help to reduce the number of non-essential car trips, thereby easing congestion, particularly in urban areas.

We therefore aim to increase the overall modal share of cycling in Cambridgeshire, as this will not only assist in reducing congestion, but also help to reduce greenhouse gases, promote sustainable communities and improve the quality of public spaces. Better public spaces can, in turn, help to promote the use of more sustainable transport modes and also support tourism. Cycling can help to increase levels of physical activity, thereby improving levels of fitness, enhancing quality of life and benefiting public health. Not only will this programme be fundamental in the achievement of our cycling targets, it will also help to meet targets for stabilising traffic levels in Cambridge and increasing the modal share of sustainable forms of transport in the market towns.

The approach we will take to improve cycling facilities is covered in detail in our new cycling strategy and outlined below.

### Along corridors

Where it provides best value for money and achieves our objectives, we will provide safe cycle routes along corridors away from the main roads, so complementing and developing the national cycle network.

We will enhance the cycleway and bridleway network connecting villages with Cambridge, the Market Towns, and corridors. Interchange sites on corridors will include secure cycle parking, for example interchanges on the Cambridgeshire Guided Busway will include cycle parking and will be linked to nearby settlements by dedicated pedestrian/cycle routes.

### In urban areas

We will continue to improve provision for cyclists in Cambridge and significantly enhance the cycle networks in the other towns through Market Town Strategies.

## Implementation of cycling improvements

It is vitally important that the needs of cyclists are considered in all transport policy and infrastructure decisions. Successful partnership working with local cycling groups and other organisations ensures that this takes place. This ensures that the needs and views of cyclists are taken into account at all stages, from planning to implementation.

Improvements to cycle networks in Ely, Huntingdon, Godmanchester, March, St. Neots and Wisbech will be implemented through the Market Town Strategies. A comprehensive network of cycle routes will encourage more people to make their journey by cycle, particularly for the journey to work, thereby reducing congestion along key routes. We also continue to work extensively with Sustrans to implement the National Cycle Network throughout Cambridgeshire, with a particular emphasis on routes linking centres of population with centres of work and leisure.

**Figure 7.4 Cycling and walking improvements programmed in the market towns***

| Huntingdon | St. Neots | Wisbech |
|---|---|---|
| • The Avenue pedestrian crossing<br>• Ambury Road cycle route<br>• Views Common footpath<br>• Walden Road toucan crossing<br>• St. Peters Road cycleway<br>• Hartford to A1123 cycleway<br>• Railway station to town centre cycleway | • Priory to the station cycle route<br>• Cycle bridge<br>• Cromwell Road pelican crossing<br>• Cambridge Street to Station Road cycleway<br>• Bushmead to Riverside cycleway | • North Brink cycleway study<br>• Post Office Lane pedestrianisation<br>• Cycle route 2<br>• Cycle parking |
| **March** | **Ely** | |
| • south east cycle route<br>• other cycle routes | • north-west cycleway<br>• other cycling links<br>• north-east cycleway | |

*Cycling and waking measures for St. Ives are currently being developed as part of the emerging Market Town Transport Strategy, and will be integrated into our programme once the final strategy is adopted. Measures for Ramsey, Chatteris and Whittlesey will be developed during the lifetime of this LTP and incorporated into the programme.

One of the particular aims of School Travel Plans is to increase the number of children cycling to school. This will be achieved by promoting cycling as a healthy and safe alternative to the car and also through the implementation of measures such as secure cycle parking and safe cycle routes where appropriate. The school run has a considerable impact on peak-time traffic. Therefore increasing the number of children who cycle to school will help to reduce congestion along main routes to schools as well as around the school gate. School Travel Plans are discussed in detail later in the chapter, and our Safer Routes to School programme also deals with many of these issues as discussed in Chapter 8 (page 95).

Additionally, the council will continue to promote adult cycle training, which has been shown to be a very cost effective way of increasing cycle use and improving safety and health.

## Programme for cycling

As discussed earlier, we will continue to work with local cycling groups to develop our cycling programme. New cycling schemes we will implement in Cambridge include the following.

- Addenbrooke's to Shelford cycleway
- Girton to Histon cycleway
- Riverside bridge, Cambridge
- Babraham to Sawston cycleway

> It is important to work with SUSTRANS to ensure that links between towns are improved.
>
> *LTP consultation response*

Our programme of cycle and pedestrian improvements in the Market Towns is shown in Figure 7.4.

# Walking

Improving the walking environment is a key part of our overall approach in this LTP and has an important role to play in reducing congestion. Walking is an environmentally friendly form of transport, and is a viable alternative to the car for shorter trips. Encouraging more people to walk for some of these shorter trips is essential to tackling congestion, especially in urban areas. Walking for utility trips provides the opportunity to undertake daily exercise, this can help protect against developing such illnesses as chronic heart disease, stroke and diabetes. We therefore aim to improve the quality of the walking environment in order to reduce congestion and encourage modal shift. This approach demonstrates our commitment to the promotion of healthy communities and reduction of greenhouse gas emissions.

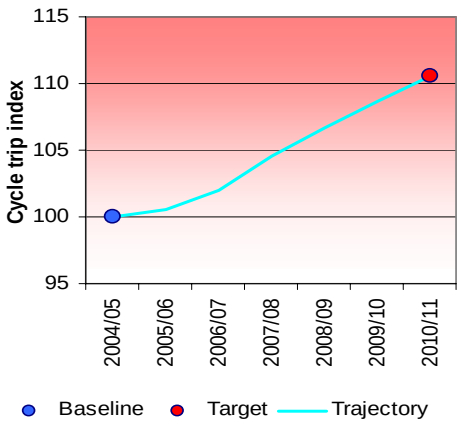
**Indicator CON3 (LTP3)**
**Target:** **10.6%** increase in cycling trips in Cambridgeshire by **2010/11** (as measured at a representative number of counting points and expressed relative to an index, baseline 100 in 2004/05).

***Evidence that the target is both ambitious and realistic***
The target and trajectory for this indicator takes account of the very high levels of cycling seen in Cambridge, and the relatively low levels seen elsewhere in the county. In Cambridge, it is assumed that cycle schemes provided with LTP and other known funds will, at best, directly result in minimal increases in modal share from the current very high levels, although this will result in increases in cycling due to population growth. However, this is dependent on uncertain development timescales (and funding), and to account for this in a target would be contrary to LTP guidance. This will however be accounted for if the target is revised in future years. It remains a challenge to manage and maintain the high levels of cycling seen in Cambridge.

In the rest of the county, it is assumed that our programme of works will to lead to an increase in cycle trips.

New counting sites will be integrated into the survey network as and when it is appropriate to do so, and when this can be achieved without distorting the baseline. In agreement with the DfT, Cambridgeshire will use a baseline of 2004/05 (rather than 2003/04), as this is based on a larger, more robust set of sites than those monitored in previous years.

**Figure 7.5 Indicator CON3 (LTP3)**




***Key actions of local government needed to meet the target***
To meet this target, the council will continue to implement new safer cycle routes in the market towns and improve cycling facilities in Cambridge to maintain the current high levels. Of particular importance in terms of cycle use will be the new cycle and pedestrian bridge in St. Neots, a vital link in the comprehensive walking and cycling network planned for the town. Further extensions to the Cambridge Core Traffic Scheme will help to improve safety for cyclists. The continuation of the Safer Routes to School project and school travel plans will also help to meet this target.

***Key actions of local partners needed to meet the target***
Continued support from local cycling groups, including the Cambridge Cycling Campaign and SUSTRANS; and more partnership working to develop and implement new schemes, such as enhancements to the National Cycle Network are essential if this target is to be met.

***Principal risks and how they will be managed***
There are three main risks to the achievement of this target. The first is if the key infrastructure for cyclists in both Cambridge and the market towns cannot be delivered. The second is if the new infrastructure does not have the anticipated impact on cycle/walking trips. The third is if the severance of routes by major roads leads to lengthy diversions and either perceived or actual safety/journey time disbenefits.
These risks will be managed by

- Promoting new cycle routes and facilities to encourage their use
- Consulting local people and cycling groups on the design of new cycling schemes
- Targeting resources at complete cycle routes, instead of small unconnected sections
- Trying to secure additional funding to improve cycling facilities

Our pedestrian strategy (see **Appendix 5**) takes account of all users of the footway. The strategy has been developed following detailed consultation with key stakeholders, such as Cambridgeshire ACRE, Living Streets and Age Concern. The main objective of the strategy is to provide good quality and safer facilities for pedestrians so as to encourage their use and reduce dependency on the car. This will help to tackle congestion and improve overall quality of life.

As discussed in Chapter 10 (page 128), we have set a Local Public Service Agreement (LPSA) target for footway condition. This will further focus our maintenance programme and improve the standards of footways across the county.

### Along corridors

- Interchange facilities (including bus stops) will be connected both to rural and urban areas through a network of improved pedestrian routes.

### In urban areas

- Market Town Strategies set out comprehensive networks of walking routes (see **Appendix 8**) for the towns; improvements within Cambridge, notably extensions to the Core Traffic Scheme, are set out later in the chapter.

The Heart Beat Health Walks are part of the national 'Walking the Way to Health' Initiative by the British Heart Foundation and the Countryside Agency. The health Walks are located throughout East Cambridgeshire. The walks are led by trained volunteers under the supervision of the partnership between East Cambridgeshire and Fenland PCT and East Cambridgeshire District Council with the 'Walking the Way to Health' Initiative.

*East Cambridgeshire and Fenland Primary Care Trust – Improving the Health of Local People*

## Programme for walking

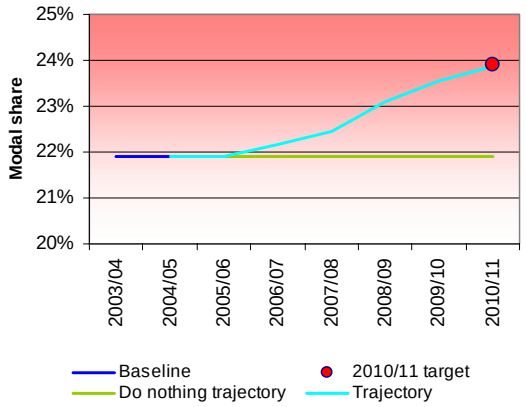
We have integrated improvements to the walking environment across our transport programme. Examples of where walking improvements form a key part of the programme include the following.

- In the market town strategies (see Figure 7.4), where networks of walking routes are identified for improvements
- Adjacent to transport corridors, providing connections to interchanges
- Footway maintenance
- Public rights of way.

**LTP Indicator CON7**
**Target:** More than **23.9%** modal share for daily bus, cycle and pedestrian trips in the market towns in **2010/11**.

***Evidence that the target is both ambitious and realistic***
Cycle use in the market towns in Cambridgeshire has decreased slightly since 2001/02 despite the introduction of new cycle facilities as part of the Market Town Strategies. Pedestrian modal share has increased slightly, while bus use in the market towns has declined. The impact of new development in the market towns, especially in Ely and Huntingdon, has been considered as part of the work developing this target and trajectory for the final LTP. Improvements to corridor bus services should lead to patronage growth on these routes. Population growth in the market towns should lead to small increases in walking, cycling and bus use, however, traffic growth crossing the county screenline has increased by 30% in the last ten years, compared to 18% nationally, making this target extremely challenging.

**Figure 7.6 Indicator CON3 (LTP3)**




***Key actions of local government needed to achieve target***
To meet this target it is essential to implement new and improved cycle and pedestrian facilities as part of the Market Town Transport Strategy programme. It is also important to enhance interchange facilities between bus and rail, such as the Huntingdon bus/rail interchange. Furthermore, Real Time Bus Information, smart cards and improved information are crucial to increasing bus patronage. These actions are key if we are to encourage more people to make their journey by bus, rail, cycle or on foot, rather than by private car. The new cycle/pedestrian bridge in St. Neots will be vital to increasing modal share of walking and cycling in the town.

***Key actions of local partners needed to achieve target***
In order to achieve this target, operators will need to improve bus services. The introduction of low floor buses and improved information are also a key factor. Cycling and walking groups also need to continue to promote and support these activities in all the market towns.

***Principal risks and how they will be managed***
The main risk to the achievement of this target is the failure to deliver the required improvements to bus services, cycling and walking facilities. There is also the risk that these improvements may not have lead to increases in bus patronage or of the number of trips made by cycle or on foot. Maintaining and continuing good working relationships with local bus operators and cycling groups will help to mitigate these risks. Continued promotion of new services and facilities will remain vital.

## The Cambridge Core Traffic Scheme

A key element of the programme to reduce congestion and promote walking is the extension of the Cambridge Core Traffic Scheme. The Cambridge Core Traffic Scheme aims to reduce the amount of traffic passing through the city by using measures such as a system of rising bollards that allow essential vehicles like buses and taxis, into the area.

The first stage of the Cambridge Core Traffic Scheme was introduced in 1997 to reduce through traffic in the historic core of the city. Further stages were implemented in 1999 and 2003. To gain local support for this controversial scheme, large-scale consultation was undertaken with residents, local businesses, shops and University colleges. In addition, the scheme was widely promoted to ensure the public were made aware of the changes to the city centre. Post-scheme consultation was also carried out to update local people on the effects of the scheme. Surveys have shown that people thought the core area was safer, cleaner and a more pleasant environment following the introduction of the scheme.

**The Cambridge Tourism Strategy**

The Cambridge Tourism Strategy envisages ‘a place for visitors to enjoy, where they are welcomed, receive good service and contribute to local life, character and economy of the historic city’. The strategy aims include:

- to maximise the use of sustainable transport modes
- to reduce barriers to, and widen access to, tourism for all kinds of visitors.

The schemes and policies contained within this LTP will contribute towards meeting these aims. For example, the Cambridge Core Traffic Scheme and new cycle facilities will help to maximise the use of sustainable modes of transport, while improvements to bus services will improve access to facilities.

Stage 4 of the Cambridge Core Traffic Scheme focuses on the area around Drummer Street, St. Andrews Street and Downing Street, and will be introduced in 2006. Measures will include the following.

- Streetscape improvements to Emmanuel Street and Drummer Street.
- Improvements for cyclists

- A 20mph limit on some roads in the core area
- Measures to relieve congestion around the bus station

Stage 5 of the scheme will concentrate on reducing through traffic on the Victoria Avenue/Maids Causeway corridor. Further public consultation is required to ascertain the problems in the area. As with all previous stages of the Cambridge Core Traffic Scheme, the advantages of removing through traffic from the core area have to be balanced against the impacts of transferring traffic to other routes.

These improvements will encourage more people to travel by bus and are integral to achieving our ambitious bus patronage targets, discussed earlier in the chapter. In addition, the core scheme will contribute towards the achievement of our targets for minimising traffic growth in Cambridge against a background of major growth in the area.

**Figure 7.7 Cambridge Core Traffic Scheme Programme**

| Scheme | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 |
|---|---|---|---|---|---|
| Stage 4 traffic management | ✓ | ✓ | | | |
| Stage 4 bus management | | | ✓ | | |
| Stage 4 streetscape measures | ✓ | ✓ | ✓ | | |
| Stage 5 | ✓ | | ✓ | ✓ | |
| Future Core Traffic Scheme | | | ✓ | ✓ | ✓ |

The Core Traffic Scheme incorporates an audit of the pedestrian environment, including the removal of any unnecessary street furniture so as to actively enhance the physical environment. As such, it serves as an excellent example of the approach that we take to ensuring that schemes help to improve the quality of public spaces and the streetscape. In addition, the Cambridge Core Traffic Scheme will help us reduce greenhouse gas emissions in the zone in line with the aims of the UK Climate Change Programme, by cutting the number of vehicles in the core area. The scheme also provides a good example of our approach to supporting tourism. Sensitive areas, such as Silver Street, have been protected from inappropriate through traffic, and so are now more attractive and safer for tourists and residents.

**LTP Indicator CON6a (LTP6)**
**Target:** No more than **8,700** peak hour (7am –10am) inbound vehicle trips across the Cambridge inner ring road cordon in **2010/11**

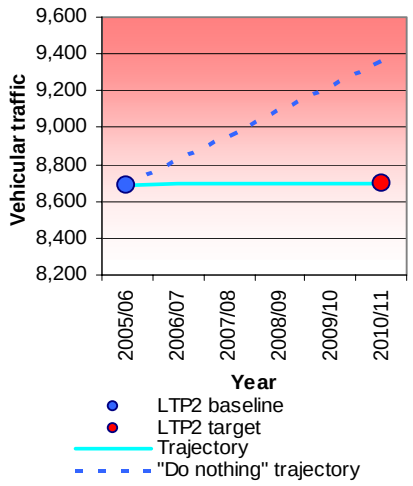
***Evidence that the target is both ambitious and realistic***
It is predicted that there will be 16,000 new jobs and 8,000 new dwellings in Cambridge by 2011. In addition, the Structure Plan allows for up to 10,000 dwellings at the new town of Northstowe by 2016. In total it is predicted that there will be around 10,600 additional (one-way) commuting trips across the cordon each day. The challenging target and trajectory showing no growth in traffic have been set with these additional trips in mind, and the number of trips that can realistically be accommodated by bus, cycling and walking. They also reflect our success in meeting our first LTP targets to reduce traffic crossing the River Cam screenline in the centre of Cambridge and stabilising traffic crossing the old Cambridge radial cordon, and the continuation of the programmes that enabled that success. The target and trajectory take account of the improvements to bus services as part of the Kickstart Initiative. The predicted growth in bus patronage will contribute to a reduction in vehicle trips in the city.

***Key actions of local government needed to achieve target***
In order to meet this target the council needs to progress with extensions to the Core Traffic Scheme, further demand management measures and bus priority measures. There is need for a greater emphasis on travel planning and the introduction of cycling and walking improvements. Promotion and marketing of sustainable transport measures are also vital.

***Key actions of local partners needed to achieve target***
The achievement of this target is based on the service enhancements by bus operators. In addition to this, it is vital that employers promote and implement travel plans in order to encourage employees to use more sustainable modes of transport. Flexible working practices will also contribute towards this target. The promotion of sustainable travel to school will help to reduce the number of peak hour trips, especially to independent schools in Cambridge.

***The principal risks to the achievement of the target and how these will be managed***
Higher population or employment growth than forecast would have a substantial negative impact on this target. This risk will be managed by working closely with employers to implement travel plans and with developers to ensure that new developments facilitate sustainable travel. The core traffic scheme and travel planning may not have the predicted effect on cycling, walking or bus use, this would be a major risk to the achievement of this target. Promotion of new schemes and initiatives will help to mitigate this risk. Failure to implement improved bus services is also a risk to the achievement of this target. Our strong working partnership with Stagecoach and other bus operators will help to minimise this risk.

**Figure 7.8 Indicator CON6a (LTP6)**



# Smarter Travel Management

Our Smarter Travel Management programme is an increasingly important way to address traffic growth and congestion. It brings together methods aimed at encouraging sustainable modes of transport. To accommodate the predicted increase in traffic growth there will need to be an increasing emphasis on encouraging more people to use sustainable modes of transport rather than the private car. Smarter Travel Management includes:

- information and advice
- travel plans and other company-based initiatives
- travel awareness and education
- transport organisation and co-ordination
- direct services to transport users (including ticketing arrangements, purchase of ticketing and reservations).

Objective: Encourage the use of travel plans so that there are fewer cars coming into and moving around the city.

*Cambridge Community Strategy*

By integrating these tools, we can provide greater value and make them more effective. As such, our Smarter Travel Management programme is essential in achieving our objectives, as shown in Figure 7.9. Smarter Travel Management is, however, only effective at encouraging the use of more sustainable transport where high quality alternatives are available. The importance of this programme will therefore increase as the LTP programme puts more high quality alternatives in place.

The approach we have taken in emphasising the importance of smarter travel management has been confirmed by the Government report *Smarter Choices – Changing the Way We Travel*, which estimates that smarter travel measures could lead to significant reductions in traffic.

The policies set out in the following sections will contribute to managing demand for transport services by encouraging behavioural change. For example, school and work-place travel plans encourage the use of sustainable modes of transport rather than the private car, while smartcards and Real Time Bus Information aim to persuade increasing numbers of people to use bus services, thus reducing the number of trips made by private car.

## Cambridgeshire Travel for Work Partnership

The Growth Agenda and associated growth in trips into and out of Cambridge (see page 22) necessitate an increasing emphasis on workplace travel planning in order to reduce congestion and encourage modal shift. We aim to accommodate half of the demand for new trips into Cambridge by workplace travel planning as well as having a significant impact on existing trips, to encourage car sharing and home-working in order to help better manage the road network. Our analysis shows that an increase in workplace travel planning is essential to controlling congestion. This must go beyond just accommodating new trips to include existing businesses, as even if we were to meet our ambitious targets for new trips, the amount of traffic generated by existing trips in our urban areas would be unacceptably high.

The county is one of ten local partners in Travel for Work (TfW) who come from local government, health, education, voluntary sector and the business community. The Travel for Work Partnership offers assistance and guidance to employers aiming to introduce travel plans at their workplace. Cambridgeshire is the only county in the UK where such work takes place in partnership. Nationally there are problems in encouraging employers to translate enthusiasm into an implemented travel plan. This is especially so where employers have no direct need to produce a plan.

Through facilitation, communication and the provision of services, the TfW Partnership endeavours to ensure that travel plans are effective. The partnership now has 2.6 staff, including a Travel Plan Advisor for the sub-region funded by the County Council. To date, the partnership has produced many tools to facilitate travel planning, including template travel plans, an accreditation scheme, an online car-sharing scheme (CamShare), enhanced information, and an improved travel survey. The partnership is increasingly assisting employers to complete the first draft of their travel plan. In addition, TfW has started to ‘cold call’ employers, although, this has had limited effect so far. While securing volunteer travel plans remains difficult, some employers will undertake initiatives that have a positive effect even if they do not actually produce a travel plan. The partnership also provides guidelines for travel plans secured through the planning process.

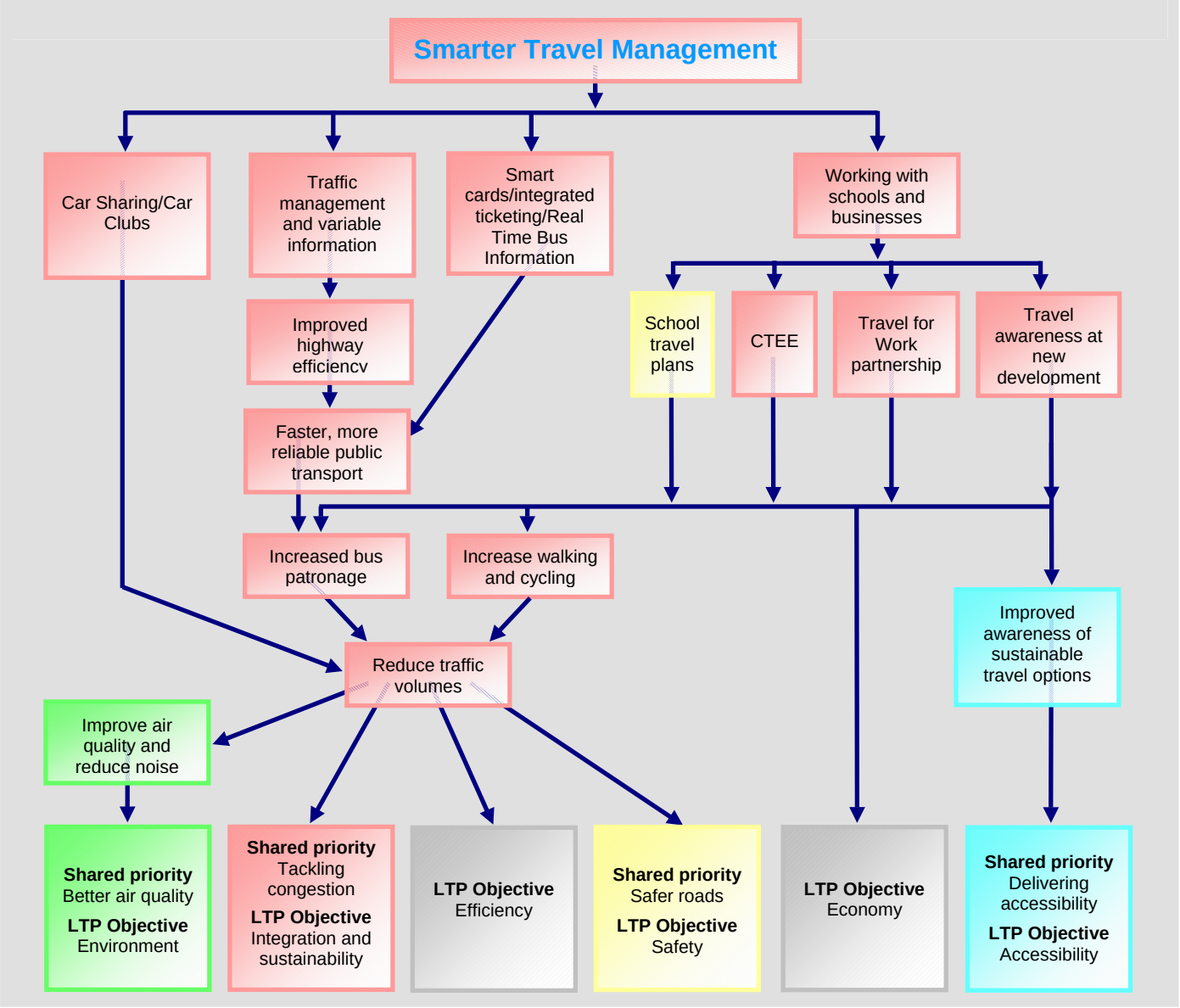
The Softer Choices report found that members of the Cambridgeshire TfW partnership that implemented softer measures exhibited an average 27% reduction in the number of vehicles per 100 staff arriving on site.

## School travel plans

The school run has a considerable effect on peak time traffic flows. Between 1985/86 and 2002 the proportion of primary school children going to school by car increased from 22% to 39% (*DfT Transport Trends 2002*). Consequently, around 17% of cars on the road at 8.50am are involved in taking children to school. To reverse this detrimental trend of private car use for school transport, it is essential to encourage the use of sustainable modes for school journeys, such as walking, cycling and public transport. We are looking to reduce traffic by changing hearts and minds and promoting sustainable modes of transport permanently.

The implementation of school travel plans is vital to reducing the problems associated with the school run. In writing a travel plan, the school examines current travel issues and identifies actions and measures that are required to achieve the objectives of the plan. Over the period of this LTP we aim to work with all schools in the county to encourage the production of a school travel plan by 2010. This approach will help to achieve targets for cycling, child casualties and traffic flows.

**Figure 7.9 Smarter Travel Management strategy**




Actions included in the plan should promote and encourage the use of safe sustainable transport on the journey to and from school. In addition, the plan should also address congestion and pollution around the school gate and along the main routes to the school. It should also aim to enhance the personal health and well being of the children attending the school and improve accessibility. By achieving these aims, school travel plans will also bring about benefits to the local community, including improvements to air quality, road safety, fitness among children and greater awareness of environmental issues.

The Government funded *Travelling to School Initiative*, has school travel plans as the key focus and starting point for travel related issues in school. It requires all schools to have a travel plan in place by 2010. Under this initiative the DfT and the Department for Education and Skills (DfES) have funded two posts within the council, one in the School Organisation and Planning Service of the Office of Children and Young People's Services (OCYPS) the other in the Market Towns and Road Safety section of the Office of Environment and Community Services (OECS).

The officers work closely together and liaise with schools to progress the *Travelling to School Initiative*. The appointment of the School Travel Coordinator within the School Organisation and Planning Service demonstrates the partnership working and commitment of other departments to delivering LTP targets and objectives.

The officers work directly with schools to help them develop their travel plan. The officers also liaise with the Safer Routes to School (SRtS) Project Team and the market town project managers to ensure the co-ordination of measures that may be needed at the schools to help to reduce congestion and promote sustainable modes of

transport. Work has also been undertaken with the Travel for Work Partnership to share best practice with regard to template travel plans and guidance. As a result, improved guidelines for both workplace and school travel plans have been developed. The School Travel Co-ordinator from the OCYP has also produced a code of conduct for behaviour on the home to school journey.

Part of the work of the SRtS team involves working with schools to implement travel plans. The project seeks to change travel behaviour and can include local infrastructure improvements to create a safe environment for children travelling to school. This initiative aims to improve staff and pupil fitness, improve awareness of road safety issues and reduce reliance on the private car. Further details of the SRtS project can be found in Chapter 8.

**LTP Indicator CON4a (LTP4)**
**Target:** Proportion of journeys to school made by 5–10 year old pupils made by modes other than the private car by **2010/11. Baseline and target to be set in 2006/07.**

**LTP Indicator CON4b (LTP4)**
**Target:** Proportion of journeys to school made by 11–16 year old pupils made by modes other than the private car by **2010/11. Baseline and target to be set in 2006/07.**

***Evidence that the targets are both ambitious and realistic***
Baselines for these targets will be set in 2006/07 when the Department for Transport School Census data is made available. This will provide consistent and representative data on usual mode of travel to school.

Since 1998 the Safer Routes to School team has worked with almost 100 schools, resulting in new facilities for cyclists and pedestrians. In addition, there has been an increasing focus on school travel plans, encouraging schools to promote sustainable travel. The target and trajectory also take account of proposed improvements to bus services in Cambridgeshire, and improvements to walking and cycling networks through the Market Town Transport Strategies.

***Key actions of local government needed to achieve the targets***
To meet this target the council needs to work with local schools in Cambridgeshire to ensure they have a travel plan by 2010. The introduction of additional safer routes to school schemes will also contribute to the achievement of this target.

***Key actions of local partners needed to achieve the targets***
To meet this target, schools in the county will need to promote travel to school by other modes than the private car and continue their commitment to the SRtS project and school travel plans. Schools will have to maintain their support for cycling proficiency, pedestrian training and walking bus initiatives, and encourage permanent changes to travel behaviour.

***Principal risks and how they will be managed***
The risks are that: school travel plans and safer routes to school schemes do not have sufficient impact on modal shift and that schools may no longer wish to be involved in such projects due to other priorities. The strong partnerships forged between the SRtS team, the school travel advisors and schools in the county will help to minimise these risks.

Since 2001, we have secured around 73 school travel plans, helping to reduce traffic in areas surrounding many schools. This in turn, can lead to a reduction in emissions, improved levels of fitness in the community and also safety improvements.

**Cambridge Transport and Educational Establishments (CTEE)**

CTEE is a partnership between the county council and a number of independent schools and sixth form colleges in the south of Cambridge. The council has worked with CTEE looking at alternatives to the car for the school run. The CTEE partnership has delivered a range of initiatives to tackle school run congestion. Key amongst these are:

- minibus shuttle services from local transport interchanges, including the Trumpington Park & Ride site
- the Cambridge schools car sharing scheme which matches parents travelling to schools using a web based system (www.shareajourney.com), the first of its kind in the UK to bring together parents from different schools
- changes to one school's hours.

## Bus information strategy

Improved public transport information is key to promoting integrated transport and encouraging more people to make their journey by bus rather than by private car, therefore it is vital to easing the problems associated with congestion.

As part of the first LTP, we implemented the Public Transport Information 2000 scheme which provides centralised public transport information accessible from one national telephone number. We will continue to ensure the operation of this system at a local level. The technical infrastructure underlying the service requires development to keep the technology current, to improve services and to add access media, that is consistent with the national programme.

Congratulations on Citi buses – the clear and accessible information has made it much easier to get around by bus. The publicity worked for me!

*LTP consultation response*

Building on this work, and in keeping with our responsibilities under the Transport Act 2000, we developed a Bus Information Strategy. This strategy can be found in **Appendix 6**.

As part of our commitment to providing better information for users of public transport, we plan to introduce Real Time Bus Information along many of the key corridors in the county as detailed below.

## Real Time Bus Information (RTBI)

The implementation of Real Time Bus Information forms a key part of our approach to increasing bus use. Bus stops in the county will be equipped with computerised screens to tell waiting passengers how long they will have to wait for the next bus. The design of the scheme has been carefully considered so as not to adversely impact on the street scene.

Objective: Improve access to services and information.

*Fenland Community Strategy*

In partnership with Bedfordshire County Council and Peterborough City Council, Cambridgeshire County Council has contracted to purchase a RTBI system. A joint contract delivers the value for money necessary to achieve low unit costs for purchase and subsequent maintenance, secures cross-border provision, and provides initial and ongoing cost savings by sharing one system.

Bus operators and Cambridge University joined with the three local authorities to develop the requirements of the system at an early stage of the project. This ensured the product would meet expectations and that arrangements for co-operative working were developed in advance. Implementation in Cambridgeshire will be in three phases, as shown in Figure 7.10. It is hoped that the implementation of RTBI will assist in making travelling by bus a more attractive alternative to the car, thus reducing congestion and improving quality of life. Furthermore, the introduction of RTBI may contribute to increased bus user satisfaction.

**Figure 7.10 Programme for Real Time Bus Information**

| Area | 2005/06 | 2006/07 | 2007/08 |
|---|---|---|---|
| Cambridge city | ✓ | | |
| Addenbrooke's Hospital to city centre | ✓ | | |
| Huntingdon to St. Ives corridor | ✓ | | |
| A428 (Cambridge to St. Neots) | | ✓ | |
| North Hunts Network | | ✓ | |
| A10 North (Cambridge to Ely) | | ✓ | |
| Market Towns | | ✓ | |
| A14 East (Cambridge to Newmarket) | | ✓ | |
| A1307 (Cambridge to Haverhill) | | ✓ | |
| Park & Ride services | | ✓ | |
| Cambridgeshire Guided Busway | | | ✓ |

## Smart cards

Smart cards are credit-card-sized devices that can hold and process information specific to an individual's needs. It can be used to make purchases and give access rights to information and facilities by communicating with an electronic reader. As part of a countywide scheme, we are developing a multipurpose smart card through the Cambridgeshire Community Network (CCN). This project will create a £29 million electronic network allowing improved exchange of information throughout the county. It is hoped that a single card will improve access to a number of public services at more convenient times to the users. The Cambridgeshire partnership has gained experience and expertise from the Government's National Smartcard Project.

In terms of transport, the card will serve two purposes:

- as a concessionary pass
- as an alternative pass or method of payment accessible to all passengers.

The transport element of the scheme will have the benefit of simplifying the bus boarding/transaction process. It will reduce boarding times, improve service performance with respect to reliability and reduce congestion around busy bus stations. It will also improve customer service, facilitate integrated ticketing and increase patronage.

We will be working in partnership with the bus companies to introduce smart cards on bus services broadly in tandem with the strategy of corridor improvements. Integration to allow the use of cards across regions, and other modes of transport including rail, is a future aspiration and will be investigated. For this to be possible it is presumed that the card will meet ITSO (Integrated Transport Smart card Organization) standards, a standard created for transport operators and local authorities.

## Intelligent Transport Strategy for Cambridgeshire

We are in the process of developing an Intelligent Transport Strategy for Cambridgeshire. The aim of the strategy is to co-ordinate the operational management of our various intelligent transport systems and the distribution of the information provided to highway users. This will be achieved through the development of the Highways Management Centre.

The last few years have seen a rise in the number of new technologies designed to complement the existing traffic signal network and urban traffic control systems and improve the management of the main road network. These include Real Time Bus Information, variable message signing systems, bus priority, rising bollards and CCTV. In order to maximise the benefits of these technologies, streamline the system operations, co-ordinate management

and maintenance, reduce costs and provide value for money we will bring the various elements together in a single highway management centre.

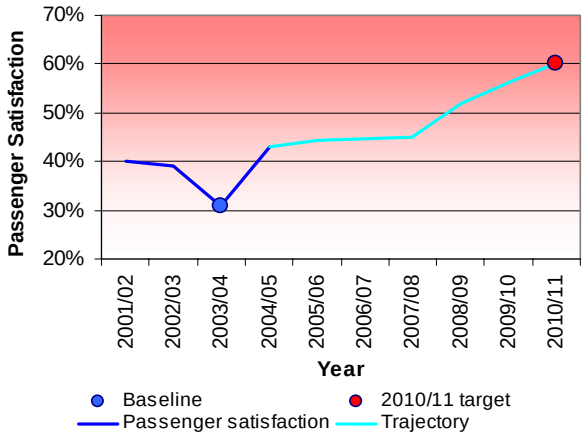
**LTP Indicator CON2 (BVPI104)**
**Target:** More than **60%** of bus users satisfied with local bus services by **2009/10.**

***Evidence that the target is both ambitious and realistic***
Evidence suggests that there is no direct correlation between schemes and an increase in bus-user satisfaction. The fundamental principle is that improvements in the quality of service, of journey ambiance, of frequency, reliability and price will lead to a rise in satisfaction levels. Perception and expectation are at least as important as the quality of the service. People's concept of satisfaction changes over time, as they get used to improvements they have increasing levels of expectation. Taking into account the proposed service improvements in Cambridgeshire and the implementation of additional bus priority measures and Real Time Bus Information, we believe we can achieve 60% of bus users satisfied with local bus services by 2009/10. This is a stretching target that would place us in the top quartile of Local Authorities for this indicator. Cambridge Park & Ride services continue to report high levels of satisfaction, around 70%. The implementation of additional high quality services such as CGB are expected to result in similar levels of satisfaction, and will contribute to an increase in satisfaction overall. However, this will be a challenging target for us to meet. Traffic generated by new developments across the county will have to be managed carefully to ensure bus services are not negatively affected.

***Key actions of local government needed to achieve target***
The council will progress schemes to improve the reliability of bus services, including bus priority measures and bus lanes where appropriate. The council will also continue to work in partnership with local bus operators and neighbouring local authorities to implement Real Time Bus Information. Improvements to bus stops, such as shelters and information will also help to improve levels of satisfaction.

***Key actions of local partners needed to achieve target***
Local bus operators need to improve service frequencies and continue to improve the quality of their vehicles. In addition to this they will need to work towards implementing off-vehicle ticketing and improve information and marketing of bus services. Improvements to reliability are vitally important to this target.

**Figure 7.11 Indicator CON2**




***Principal risks and how they will be managed***
The key risks to achieving this target include the failure of bus operators to deliver the required service improvements and delays to the delivery of Real Time Bus Information. Failure to promote services properly would also impact on the achievement of this target. Will we try to minimise the risks to this target by working closely with local bus operators to ensure service improvements and the implementation of Real Time Bus Information take place. Cuts to subsidised bus services could result in a decrease in satisfaction. We will manage this risk by working closely with local bus operators and bus users, promoting community transport schemes and using Accession to determine the services most in need of subsidy. We also have concerns over the robustness of this indicator at a local level, as surveys have shown marked fluctuations in satisfaction for no apparent reason in the lifetime of our first LTP. We will look further at ways to improve our understanding of the data if this pattern continues in future years.

With dedicated staffing, the interaction of the various elements will be improved, allowing a more proactive approach to network management. The opportunity will also be taken to co-ordinate these systems with the off-street car park control systems operated by Cambridge City Council and to support the Local Authority Parking Enforcement in Cambridge. A management centre will also allow better co-ordination of the information-signing systems and car park management to address car park queuing problems and maximise car park occupancy.

Initially, the management centre will focus on the Cambridge area before being expanded into the market towns and rural areas.

The post of Traffic Manager has now been established within the new staffing structure at Head of Service level. The Traffic Manager will take the lead in developing an integrated highways management centre to ensure that all highways operations are well co-ordinated and to provide a clearer point of contact for the public. We will continue to develop the role of the Traffic Manager to ensure that minimal disruption is caused by highway maintenance works, temporary traffic controls, road closure and so on. Internal and external stakeholder consultation is now complete and the management centre system architecture will be developed during the next 12 months. Co-ordinating intelligent transport systems such as traffic signals, UTC, rising bollards and variable message signs will be a key objective to maximise their benefits and to provide better information for road users. A Network Management Plan is being developed, in consultation with key stakeholders, for formal adoption by the end of 2006.

As part of our programme of modernisation, we have already set up a Contact Centre to provide a one-stop shop for services to the public. We will integrate the work of the two centres to ensure that the information coming from the Highways Management Centre is instantly available to the Contact Centre and vice versa, thus improving the overall quality of both functions.

The concept of the Highways Management Centre is entirely consistent with recent Government thinking and will complement other council-wide initiatives. In particular, it will allow the more pro-active management of the road network, including streetworks by public service utilities and the county council's own highways work programme – which is in line both with the Best Value Review of Highway Maintenance (reported later) and the requirements of the Traffic Management Act (see page 123).

### Car sharing

The council will continue to promote CamShare, the online car-sharing club, through the Travel for Work Partnership. The website allows employees to search quickly and securely for people making a similar journey amongst people working for their employer and neighbouring employers. Over 100 Cambridgeshire employers with over 14,000 employers have already signed up, including the University of Cambridge, Business and Science Parks and two local councils.

In addition, the council supports the principle of car clubs as parts of new developments to encourage less car use and ease congestion.

## Freight

The efficient management of road and rail freight is essential to our economy and our prosperity. The demand for goods is likely to increase over the next 20–30 years, this will in turn lead to increased demand for the movement of goods. We will need to accommodate this demand while minimising the impact that moving freight has on congestion and quality of life issues, such as noise, climate change and greenhouse gases.

At present around 92% of freight is transported by road and there is little prospect, at a national level, that the quantity of freight carried by rail will increase at the levels hoped for. In acknowledgment of this, we have formulated policies to accommodate road freight while at the same time encouraging rail freight.

### Road freight

The approach we will take to minimise the effects of road freight on the network is outlined in the following sections.

#### Along corridors

We will encourage road freight to use the primary road system wherever possible, by:

- providing information to the key road freight organisations and the companies that provide services to the road freight industry
- exploring the possibility of providing more secure overnight parking facilities along the corridors
- establishing measures to remove the most severe congestion points along the main corridors, thus making those routes more attractive to lorries.
- consider freight Quality partnerships if specific issues on individual corridors need to be addressed.

#### In urban areas

We will aim to minimise the effects of road freight on the urban network through the following:

- continuing information, including signing as to the most suitable routes for lorries to take
- introducing quiet surfacing on lorry routes in built-up areas
- reinstating and repairing inspection chambers, gulleys etc. to reduce the impact of noise from Heavy Commercial Vehicles (HCVs)
- restricting lorry access to unsuitable areas where possible
- enforcing time restrictions on lorries in pedestrianised areas
- providing adequate loading and unloading facilities, where possible.

#### In rural areas

We will:

- where possible, encourage lorries to use the most suitable routes by providing useful information
- restrict access where possible to unsuitable areas, through the introduction of appropriate restrictions along certain roads.

#### The contribution of road freight to our strategy and objectives

Road freight is essential to the prosperity of the county. There is often no other way that goods can be delivered. However, 90% of the wear to roads is caused by lorries. By concentrating lorries wherever possible along the primary road network, we will succeed in reducing the wear on the roads less able to resist this wear and tear. Better management of lorry journeys in the rural and urban environments will also bring environmental and safety benefits.

### How we will deliver these policies

We have recently appointed a HCV Route Manager to work with the freight companies to promote the policies set out above.

We will consider convening a Freight Quality Partnership to look at the possibility of improved lorry route management in St. Neots. Any future partnership will have a clear purpose and timescale. This approach is in keeping with recent thinking on freight partnerships, which suggests that they should be short in duration and concentrated on particular issues.

As part of the Market Town Strategies, we will work with the freight industry to reach an agreement regarding the times that pedestrian areas are accessed by lorries. Within Cambridge, we will continue to allow lorries into the core traffic area only at specified times.

We will also continue to produce and distribute information to appropriate bodies as to the most convenient method of accessing towns and of getting to destinations within the county.

The Freight Transport Association (FTA) has recently revised its trade route map for the East of England. The map shows key strategic routes on the transport network, and highlights those routes that the FTA believes are in need of investment. Two of these routes run through Cambridgeshire, the A14 and the A47. The FTA is concerned about the speed of delivery of improvements where funding is not yet committed. We will continue to work with the FTA and the Highways Agency to consider proposals for improvements to the trunk road network.

### Programme for road freight

We will produce a route map for the whole county (including bridge restrictions) showing preferred routes for HCVs, and access maps to the market towns, which will be made available to freight operators and local businesses. We will also, in due course, update the route map for Cambridge. Other parts of the road freight programme are covered within the road maintenance programme (Chapter 10) and the Market Town Strategies (see **Appendix 8**).

## Rail freight

Rail freight is a more environmentally friendly way of moving goods than road freight and also has safety benefits. We will continue to encourage rail freight and the move from road to rail wherever possible, while recognising that a large shift in the move from road to rail is unlikely in the period of this LTP.

Specifically, we will:

- continue to work with the Strategic Rail Authority (SRA)/DfT in encouraging alternative routes to/from the east coast ports
- support proposals for the continuation of the Chesterton site for freight use.

In order to make an impact on road freight traffic, local rail freight provision needs protection through the process of identification in the appropriate Local Plan.

## Waterways

Cambridgeshire has around 300km of navigable waterways, including tidal stretches, which are used entirely for leisure traffic. There is almost no commercial traffic on the inland waterways in the county with the exception of the port at Wisbech, which currently handles approximately 80 sea-going freight vessels a year.

Water based transport is a more sustainable, less polluting mode of transport for freight than road based transport, particularly in terms of air quality. In addition the development of waterways for recreational uses may also help to support the economy by increasing tourism and possibly facilitating economic regeneration.

### Wisbech

The port of Wisbech is only 60 miles from East Midlands industry, and provides an opportunity to reduce ‘road kilometres’ of freight. Together with the neighbouring port at Sutton Bridge in Lincolnshire, Wisbech port can be an important part of a regional strategy for freight transport. Increased use of short sea shipping for container ‘feeder’ services on UK coastal routes is one example of an area where small ports like Wisbech can help maintain the competitive edge of industry in a cost effective and sustainable manner. Additionally, as an inland port it is particularly suitable for one-off abnormal loads, which would otherwise have to make longer journeys on the road network.

We have established a programme for Wisbech as part of our Market Town Strategy for the town. This comprises measures to enhance access to the port including a new cycle bridge, safety measures within the area and improved public transport.

We also support the proposals arising from the A47 Multi-Modal study (discussed in Chapter 1) and will implement measures arising from the study that fall within our areas of responsibility. Enhancement to the main roads serving Wisbech will bring benefits to the port.

### Other ports

The proposed development of the Haven Ports in East Anglia may have a considerable impact on the transport network in Cambridgeshire, particularly the A14 as freight traffic uses the route to transport goods throughout the country. To tackle any additional pressure on the transport network in Cambridgeshire, we will work closely with the Highways Agency and our other partners to identify sustainable solutions. In addition, Suffolk County Council has commissioned a multi-modal study to look at possible transport improvements along this corridor. The County Council fully supports this study and will work with Suffolk to introduce any improvements recommended.

### Airports

The proposed expansion of Stansted airport in Essex is likely to impact on the strategic road and railway networks in Cambridgeshire, as well as the local transport network. We will look to address any increased pressure on the transport network in Cambridgeshire through this LTP and by working with Government to promote high quality and comprehensive sustainable transport links to the expanded site.

## Demand management

Demand management measures are a central part of our integrated transport strategy and are key to tackling congestion, especially in urban areas. The availability and cost of car parking also form an important part of the approach adopted to promote integrated transport and reduce congestion.

We seek to reduce unnecessary car travel by implementing a number of complementary planning and transport mechanisms based around price, time, quality or a combination of these. Such measures will seek to balance these factors in order to provide a choice of travel options and encourage modal switch in favour of public transport, cycling and walking, while also recognising that the car has an important role to play for some journeys in Cambridgeshire.

We recognise that while restrictive parking policies may reduce the impact of traffic, in isolation these policies could have a negative impact on the vitality and economy of the town centres in which they are introduced. They could also contribute to accessibility problems in rural areas. Therefore a balance needs to be achieved between strategic and local considerations and between economic and environmental objectives.

### Parking

The availability of parking is essential to ensure the economic vitality of the county. Limiting the availability of parking can help to encourage more sustainable transport, thus reducing congestion. Parking is a major issue within urban areas, but can also impact on travel choices from further afield, especially from the rural parts of the county.

The five District Councils are responsible for setting off-street parking charges. The responsibility for on-street parking lies with the county council, and our policies are in line with the District Councils.

As the District Councils revise their Local Development Frameworks/Local Plans, they will need to review district policies and check they are consistent with the Structure Plan.

Parking Standards for new developments reflect the policies within the Structure Plan and PPG13. Parking charges are set in a way that is consistent with these policies. We anticipate that such an approach will be consistent with regional policies for parking that are being developed as part of the Regional Transport Strategy.

Policy 8/5 of the Structure Plan states that:

‘Parking standards for all new development will be expressed as maximum standards and will be set in Local Plans. Lower levels of parking provision may be required:

- where means of travel other than the private car are available or can be provided
- where the need for high density development associated with central facilities limits the potential for car parking.

In Cambridge, Peterborough and the market towns, parking standards for non residential development should not exceed the standards specified in PPG13.’

Objective: To limit the amount of car parking provided in new developments, where appropriate, to reduce over-reliance on the car.

*South Cambridgeshire Local Plan*

The commentary on the policy goes on to say:

‘For non-residential development, the availability of parking at trip destinations is critical in shaping the transport and travel characteristics of sites. Where the level of transport accessibility is high for non-car modes then the level of on-site car parking should be reduced below local standards as a means of achieving high modal share for public transport, cycling and walking.’

### Parking Strategy

Our parking strategy is in keeping with the policies set out above. As a way of controlling traffic levels and congestion we will continue to introduce parking charges in areas where the level of demand is highest and where alternative, more sustainable forms of transport are most readily available. We will look to expand this policy as sustainable alternatives are improved. Specifically this approach breaks down as follows.

- Within Cambridge, where demand for parking is highest and there are high quality sustainable alternatives available, a parking regime has been introduced that links parking charges with those for Park & Ride: thus encouraging the use of the Park & Ride system, especially for single user car trips.
- We have introduced local authority parking enforcement in Cambridge, which includes the power to enforce parking restrictions. This enables parking enforcement to be more closely matched to meeting our objectives and provides revenue from parking fines to offset enforcement costs.
- Within Huntingdon, St. Ives and St. Neots, parking charges exist and have recently been reviewed. The approved parking strategy allows for charging levels to be reviewed as town centre developments take place and good quality public transport serving these towns, in the form of new Park & Ride sites/interchange and the Guided Busway, as well as measures through the Market Town Strategies to promote walking, cycling and public transport are introduced.
- In Ely, a survey was carried out which showed that over 60% of respondents supported the introduction of parking charges, provided the revenue from this was used to support public transport and to improve the quality of existing car parking. The implications of this are now being considered by East Cambridgeshire District Council as part of a wider package of measures emerging from the Market Town Strategy for the city.

Car parking is currently free in the market towns further away from Cambridge. This reflects the more limited availability of high quality alternative forms of transport. We will examine the possibility of establishing car-parking charges in these areas and, if necessary, undertake a review of car parking policies as high quality sustainable transport becomes available.

### Programme for parking

Much of the implementation of this strategy will be carried out by the district authorities as part of the work being undertaken in developing Local Development Frameworks. Additionally, work in promoting cycle parking as an important part of encouraging cycling is being carried out as part of the Market Town Strategies discussed in Chapter 4.

### Local Authority Parking Enforcement

In Cambridge, there have been a number of difficulties around enforcing parking controls, especially in places where the demand for parking is highest. In order to manage parking in the city centre, Cambridgeshire County Council and Cambridge City Council introduced Local Authority Parking Enforcement in October 2004. This involves taking over enforcement responsibility from the Police, allowing us to match enforcement with our wider transport strategy for Cambridge. The benefits of the scheme include:

- correct, sensible and safe parking in Cambridge
- reduced congestion on the roads
- better access for the emergency services
- improved safety for drivers and pedestrians
- more effective operation of buses
- improved air quality, health and the general environment
- keeping Cambridge moving.

The scheme has also helped to reduce delays to emergency services by discouraging irresponsible parking, thus reducing congestion on the roads. The City Council, working on behalf of the County Council, has appointed a contractor to provide a team of parking attendants to replace traffic wardens. The parking attendants have been issued with clear guidelines setting out what is and is not permissible, and these were widely publicised. Parking attendants have responsibility for issuing Penalty Charge Notices to people who ignore parking restrictions and park inappropriately.

We will keep Cambridge moving by targeting key commuter routes, particularly during the peak periods, and tackling known problem areas so as to reduce congestion and improve enforcement.

## Transport Innovation Fund (TIF)

The Transport Innovation Fund has been established by the Department for Transport (DfT). Part of the fund is to be used for the development of pioneering projects by local authorities to tackle congestion through packages of measures that would include improved local bus services and demand management measures such as road pricing. The fund will also be used to support innovative mechanisms that raise new funds locally.

During 2005, Cambridgeshire County Council submitted a successful bid to the DfT for pump-priming funds to build on the work in our Long Term Transport Strategy and explore options for addressing increasing congestion in and around Cambridge generated by housing growth.

This study is now under way. It will prepare a package of measures with a view to a bid for Transport Innovation Fund (TIF) support, with a proposal for TIF Partnership. We will be wide ranging in this study, considering all options, but at the same time founding the work on the need to maintain and enhance the economic viability of Cambridge. We will be involving a number of partners, including Cambridge City Council and the District Councils of Cambridgeshire, the Highways Agency, the Government Office for the East of England, the East of England Development Agency and business interests and using this stakeholder involvement to drive forward consideration of the issues and possible solutions. In determining the elements of a TIF package, we are aiming to build on the record of successful delivery in the Cambridge area and provide essential sustainable transport measures and infrastructure to:

- Support local, regional and national economic development
- Deliver the residential and commercial growth agenda
- Minimise the environmental impact of additional transport movement
- Support social inclusion

The objectives of our TIF study are to:

1. Define the individual components of the package of measures that provides the most effective way of managing future congestion on Cambridgeshire's roads by containing car miles at or below current levels.
2. Consult stakeholders, take their views into account, and seek their support
3. Forecast the impact of this package on bus and rail patronage and road traffic flows, including trunk roads
4. Estimate the costs and economic benefits of the package.
5. Assuming there is a robust case for a package of measures which meets TIF guidelines, prepare a proposal to enter TIF Partnership with the DfT.

A statement setting out the County's position with regard to TIF is being sent to government with this LTP.

# Other congestion issues

## The Traffic Management Act 2004

The Traffic Management Act gained Royal Assent on 22 July 2004 and applies to all Local Transport Authorities in England. It imposes a new duty on local traffic authorities to manage their networks in a way that secures the expeditious movement of traffic, including pedestrians and cyclists on them, and to facilitate the same on the networks of others, in order to achieve the best operation of the network as a whole. Making the best use of our current road network is important for the economy, environment and society in general. The overall aim of the 'expeditious movement of traffic' implies a network that is working efficiently without causing unnecessary delays to those travelling on it.

We have appointed a Traffic Manager to undertake the duties required by the Act, see page 85. This will help to deliver a co-ordinated, planned and proactive management of the road network across the whole organisation and will ensure that the agreed actions are implemented to programme. The post is the focus for outside bodies when they wish to do anything that affects the flow of traffic around the network. The Traffic Manager is actively engaging in liaison with neighbouring authorities and the Highways Agency and it is expected that the LTP process will provide the mechanism to deliver this co-ordinated cross-border approach to congestion within the region.

Overall, authorities have to take account of the needs of all road users; take action to minimise, prevent or deal with problems; and consider the implications of decisions for both their network and those of others.

## Making the most efficient use of infrastructure

To complement our approach to tackle congestion in Cambridgeshire we aim to make the best and most sustainable use of existing and new infrastructure, helping to achieve value for money. The approach we will take to achieve this is set out in Chapter 12.

## Trunk roads and long-distance travellers

### Trunk roads

The increasing level of traffic on trunk roads in the county is of great concern. Since 1994, traffic on the A428 has increased by 56%, while traffic on the A14 has increased by 34% and continues to be the most heavily trafficked route in the county.

When severe accidents occur, traffic diverts through villages along the route, such as Willingham, Cottenham and Swavesey causing delays and air pollution in these villages. The A14 villages' traffic calming project was a recommendation of the Cambridge to Huntingdon Multi-Modal study to stop traffic diverting through the villages.

This work was closely co-ordinated with the Highways Agency to ensure traffic calming measures did not have a negative impact on the strategic road network.

Particular junctions along these strategic routes can become congested at peak times. The roundabout at the junction of the A10/A14 is a particular example of this. During peak periods the traffic lights at the roundabout are running at capacity. The junctions of the A141/A14 and the B1049/A14 also experience congestion at peak times.

**LTP Indicator CON6b**
**Target:** Less than **191,700** motor vehicles per day crossing the Cambridge radial cordon in **2010/11.**

***Evidence that the target is both ambitious and realistic***

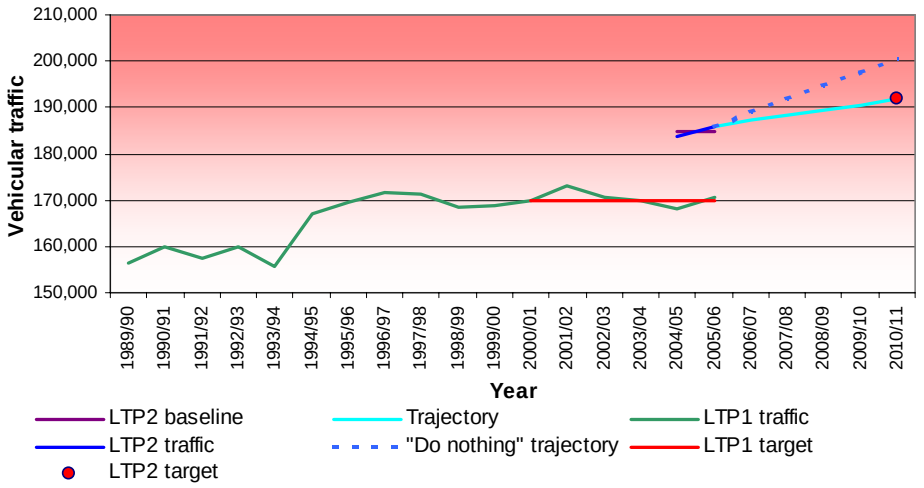
This indicator sets a target and trajectory for a new Cambridge outer radial cordon. The indicator in our LTP 2001-06 had slightly different cordon points, and the difference in daily traffic flows between the two cordons was around 15,500 vehicles in 2004/05 and 2005/06. Figure 7.12 shows the new baseline and trajectory and target for this indicator, and also shows past progress against our first LTP indicator based on the old outer radial cordon.

The trajectory for this indicator is based on detailed work carried out with the Department for Transport in developing a trajectory for the old Cambridge radial cordon. This work took account of the estimated 42,500 additional trips into and out of Cambridge as a result of the Growth Agenda, and of the related trajectories for bus patronage and cycle use that would accommodate many of these trips. Based on the programme of measures in this LTP, this work identifies a shortfall of around 4,500 trips that are therefore assumed to be accommodated by increased vehicular traffic into Cambridge.

The trajectory for this indicator is therefore based on known LTP funding from Government, and on this basis we are unable at this time to set a target that shows stability or falling levels of vehicular traffic across the radial cordon in the period to 2010/11. We will however be seeking additional funding from any available sources towards programmes that will allow us to implement further measures and schemes that may enable us to make better than predicted progress.

New bus services funded through the Kickstart Initiative will accommodate some of the additional trips, while the extension of the Cambridge Core Traffic Scheme will make car journeys less attractive. However, the high levels of development in Cambridge means that this target will prove challenging to meet.

**Figure 7.12 Indicator CON6b**




***Key actions of local government needed to achieve target***

To meet this target we will need to extend the Cambridge Core Traffic Scheme, introduce further cycling and walking improvements and deliver the Cambridgeshire Guided Busway. The delivery of the Smarter Travel Management programme will also contribute to our meeting this target. A carrot and stick approach remains important to meeting this target. Strict parking policies and traffic restraint alongside significantly improved bus services will contribute to meeting this target. Any future measures funded through the TIF initiative will make a significant contribution to this target.

***Key actions of local partners needed to achieve target***

To achieve this target, local bus operators are required to improve service frequency and quality. Other local partners need to continue partnership working with the council in order to promote cycling, walking and bus services. The promotion of flexible working practices and home working by local employers will also play a key role in meeting this target.

***Principal risks and how they will be managed***

The key risks to the achievement of this target include the following.

- higher than forecast population and employment growth
- failure to implement infrastructure improvements, such as the Guided Busway
- insufficient funding to deliver required infrastructure and initiatives
- failure of local bus operators to deliver service improvements
- delays to schemes due to political processes

We will manage these risks by

- continuing to promote the use of sustainable modes of transport
- working with local bus operators, and sustainable transport groups to help ensure there is local support for new measures
- securing funding from other sources towards transport improvements
- regularly communicating with local members to ensure political acceptance of schemes

To improve traffic flows at the A10/A14 junction, the layout is being changed. To ensure delays are not caused elsewhere, the Highways Agency has been closely involved in the design of the scheme. The north and southeast

sections of the roundabout are to be widened, and the westbound A14 slip road will also be widened, allowing more vehicles to use the junction.

The County Council will continue to work with the Highways Agency to consider options for tackling congested junctions on the trunk road network, and as noted above, will also work with them as partners in the TIF study.

### Long-distance travellers

Cambridgeshire experiences large amounts of through traffic, with many long-distance journeys being made in the county. The County Council will continue to work with the Highways Agency and other organisations to cater for the needs of long-distance travellers. For example, a significant amount of work has taken place with National Express to find a suitable location for long-distance bus stops in Cambridge in order provide enhanced waiting facilities for passengers and to relieve congestion around the bus station. Furthermore, the council regularly liaises with Network Rail, the DfT and Train Operating Companies to improve rail services for both local and long-distance travellers.

As discussed in Chapter 1, the County Council regularly liaises with the Highways Agency to progress improvements to the A14 and the A428. Both of these routes cater for long distance travellers as well as those making local journeys, it is important that the needs of all users are taken into account. Chapter 1 details examples of successful partnership working with the Highways Agency.

## Emergency vehicles

We aim to provide infrastructure and services for ambulances, police cars, fire engines, military vehicles and waste collection trucks in a way that enables them to maintain or improve standards. Local Authority Parking Enforcement (discussed earlier in the chapter) will improve access for the emergency services in Cambridge, while measures in the market towns to tackle congestion will improve facilities for vehicles providing public services. The implementation of the Network Management will also help to enhance access for these essential vehicles. Chapter 8 details how we work with the emergency services in Cambridgeshire to improve road safety though the Partnerships for Road Safety in Cambridgeshire and Peterborough (PARSINCAP).

# Conclusion

This chapter has shown how our strategy and policies will contribute towards reducing congestion, and has demonstrated that easing congestion also helps to improve the quality of life. It has shown a clear understanding of the challenges we face locally, and has also detailed, using trajectories and graphs, the effect our programme will have on targets.

# 8 Road safety

This chapter outlines the measures we will implement to reduce accidents and casualties throughout Cambridgeshire. It goes on to detail the main road safety issues in Cambridgeshire and the effect of our safety programme on our targets and trajectories. Since the first Local Transport Plan came into force, a clear downward trend in the number of people killed or seriously injured on Cambridgeshire's roads has occurred. We aim to further reduce the number of accidents on Cambridgeshire's roads in order to lower the number of casualties and also to minimise their impact on other Shared Priorities for Transport and LTP objectives. We are committed to improving the road network and making journeys safer for all those travelling in Cambridgeshire.

## Introduction

Road safety is a particularly important part of our LTP programme as it can have a considerable impact on the other Shared Priorities for Transport, quality of life issues and LTP objectives.

Although we are succeeding in reducing accidents on Cambridgeshire's roads, our Road Safety Strategy contains challenging targets to achieve further reductions. We will implement a comprehensive range of road safety measures at areas with *known* accident problems as this will have the greatest impact on reducing accidents. However, we have to be flexible in our approach as those areas most affected may change as travel conditions and patterns vary over the LTP period.

We will therefore continue to focus our efforts to further reduce casualties on methods such as Safer Routes to School, road and junction improvements, safety cameras, driver education, traffic calming schemes and other speed management measures. These measures will complement other initiatives and strategies that promote sustainable transport, improved accessibility and reduced congestion.

An analysis of casualty figures can be found in Chapter 2, while Figures 8.1 and 8.2 show past casualty trends in the county.

### National targets for casualty reduction

The Government, in their safety strategy *Tomorrow's Roads – Safer for Everyone* has set national targets for casualty reduction to be achieved by 2010. These comprise:

- A 40% reduction in the number of people killed or seriously injured in road accidents
- A 10% reduction in the slight injury casualty rate
- A 50% reduction in the number of children killed or seriously injured.

These targets set the agenda on which much of our road safety policies and programmes are based. They also set the context against which all of our LTP indicators relating to road safety have been developed.

**Figure 8.1 Cambridgeshire casualty trends**

| Year | Fatal | Serious | Slight | Total | Child KSI |
|---|---|---|---|---|---|
| 1994 | 64 | 596 | 2,667 | **3,327** | 43 |
| 1995 | 71 | 522 | 2,794 | **3,387** | 51 |
| 1996 | 60 | 528 | 2,964 | **3,552** | 45 |
| 1997 | 52 | 537 | 3,102 | **3,691** | 53 |
| 1998 | 52 | 503 | 3,011 | **3,566** | 48 |
| 1999 | 63 | 471 | 2,811 | **3,345** | 41 |
| 2000 | 71 | 491 | 3,116 | **3,678** | 39 |
| 2001 | 52 | 471 | 3,185 | **3,708** | 33 |
| 2002 | 52 | 459 | 3,027 | **3,538** | 36 |
| 2003 | 51 | 419 | 2,962 | **3,432** | 33 |
| 2004 | 54 | 473 | 2,869 | **3,396** | 32 |

## Road safety strategy

Our current road safety strategy (contained in **Appendix 7**) was established in 2000. We aim to carry the strategy forward in this LTP towards the delivery of new targets for 2011, building on the strengths of new initiatives in a process of continuous improvement. Progress towards the delivery of the road safety strategy is reported in the annual Network Monitoring Report, which also provides details of any changes to targets and the programme, as well as providing monitoring information for all other programme areas.

**Figure 8.2 Casualties / million vehicle km, 2003**

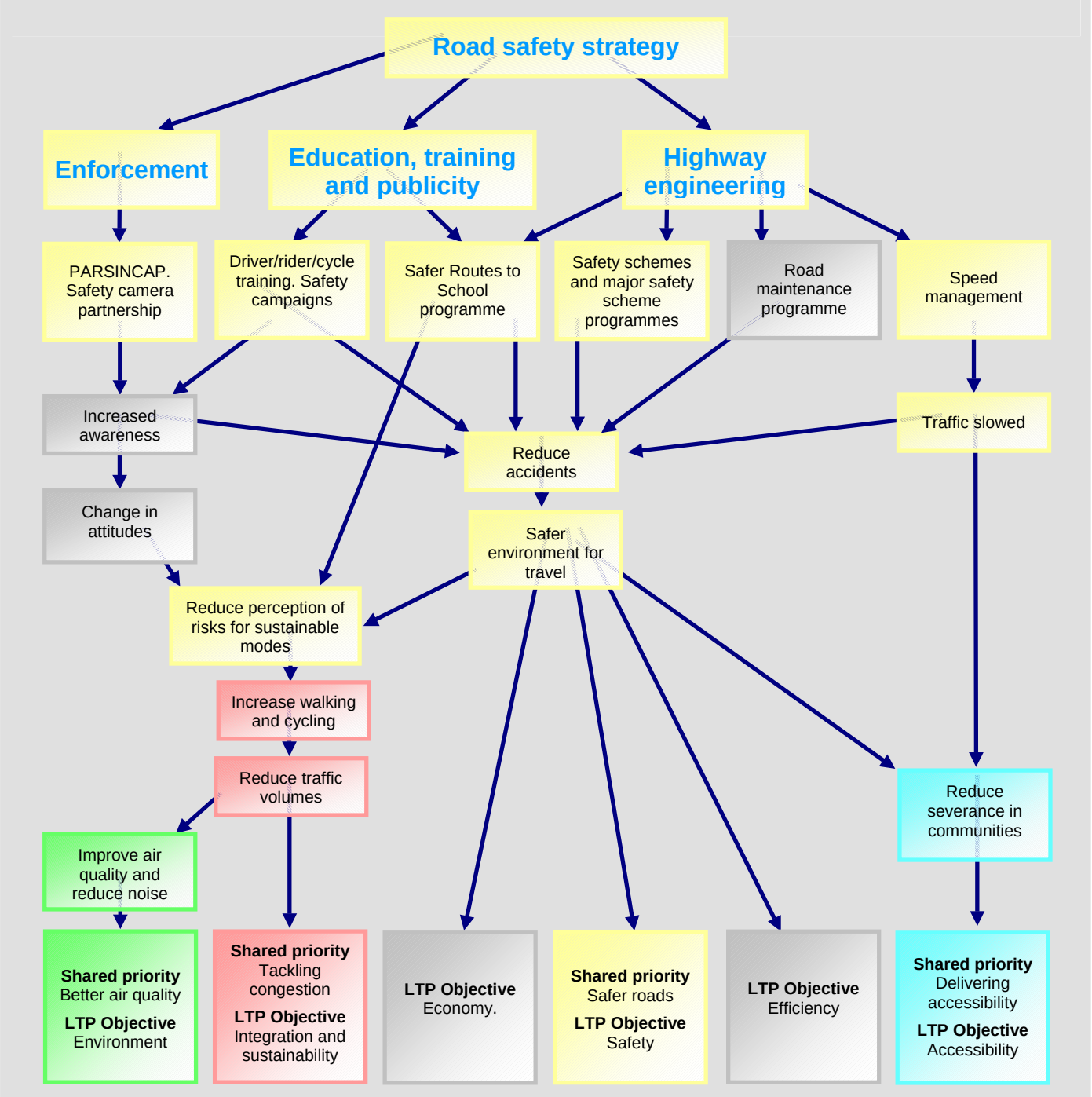
| | Rural A roads | | Urban A roads | |
|---|---|---|---|---|
| | All | KSI | All | KSI |
| Cambridgeshire | 0.32 | 0.051 | 1.17 | 0.11 |
| Great Britain | 0.35 | 0.061 | 1.08 | 0.12 |

We are committed to making Cambridgeshire safer for both residents and visitors. We will work closely with other agencies to achieve this, including all three tiers of local government, the police, health authorities, voluntary groups, the business sector and the academic sector. In addition, we will continue to work with Local Strategic Partnerships in order to address community safety issues and reflect priorities set out in the community strategies.

The three strategy elements – road safety, accident investigation and prevention, and personal safety – have at their core, the process of reducing the risk of injury to the traveller. The road safety strategy attempts to ensure that all people feel safe and secure when using the transport network. It also has an important role to play in improving

accessibility and encouraging the use of sustainable transport. In order to do this, we will develop new measures to improve road safety in Cambridgeshire. Figure 8.3 shows our approach to road safety.

**Figure 8.3 Road safety strategy**




The road safety strategy contains two overall objectives:

- to reduce the number of deaths and serious injuries
- to change public attitudes to encourage responsible use of the county's roads by all road users, especially vehicle drivers.

In addition to these objectives, we aim to reduce the number of slight injuries through the programme of schemes and measures contained in the road safety strategy. We place a strong emphasis on speed management, road safety education and partnership-working to deal with these types of accidents.

Integral to all new transport infrastructure is a systematic safety audit process that aims to provide safer travel for all modes and ensuring prevention by design. The number of audits carried out in the county has risen steadily from 15 in 1991, when the principle of safety audit was introduced in Cambridgeshire, to over 210 per year. Research indicates that safety audits themselves may be preventing (over and above scheme implementation), upwards of one casualty per year per site. On that basis the safety audit process in Cambridgeshire saves some 210 casualties per year and hence saves the community some £17.9 million annually at 2003 prices.

# Road safety issues in Cambridgeshire

The following sections detail the most important road safety issues in Cambridgeshire; these include, disadvantage, children, urban areas, rural areas, speed management, road safety at work, and motorcyclists.

## Disadvantage

During 2003, a study was conducted of child casualties in relation to the Social Deprivation Index. Issues emerging from this study are somewhat mixed, with:

- high incidences of child casualties in some of the more advantaged wards, as well as those with high deprivation scores
- relatively low levels of child casualties in some wards with fairly high deprivation scores
- child cycling casualties in the Cambridge city schools emerging as an issue
- car occupant casualties in the rural wards emerging as an issue.

In parallel with this study, the County Council's assessment method for medium-sized safety engineering schemes was reviewed. The issues noted above, were considered in this review, although the greatest driver in the assessment of all schemes remains their potential for casualty reduction, with particular emphasis on reducing the numbers killed and seriously injured. **Appendix 7** includes the Accidents and Deprivation Project Progress Report, which details measures to be undertaken to address the issue of child casualties in deprived areas.

Road safety education and training programmes, such as child cycle training, are being reviewed to ensure that deprived wards are participating, thereby addressing social exclusion and accessibility issues.

## Children

In 2004, 32 children died on the roads in Cambridgeshire, this is around half the number for 1993 (see Figure 8.5). While the rate of child death and serious injury per head of resident population in Cambridgeshire is currently 23% less than the national average, we remain committed to further reducing the number of child casualties in the county. Child pedestrian casualty rates in Cambridgeshire are much lower than the national average, however the casualty rate for child cyclists is higher than the national average. This may be linked to the higher than average number of cyclists, particularly in Cambridge.

Reducing the number of accidents resulting in child casualties is a major focus of our safety programme. We therefore have specialised programmes aimed at reducing child casualties, including Safer Routes to Schools, school travel plans, safer cycling schemes and Theatre in Education. These initiatives will be implemented in conjunction with our wider programme for road safety. These are discussed in more detail in the subsequent sections.

### Safer Routes to School

The Safer Routes to School (SRtS) project forms a central part of our approach to reducing the number of child casualties in the county. The aim of the project is to create a safe and healthy environment so that children and young people can travel safely to and from school, using sustainable forms of transport such as walking and cycling. This approach will help to increase their independence, health and fitness, promote healthy communities, and improve community safety and personal security. The SRtS project has become increasingly popular since eleven schools participated in the pilot research project in 1997. By 2005, 96 schools had been involved in the SRtS project, as shown in Figure 8.4.

#### *Working with schools*

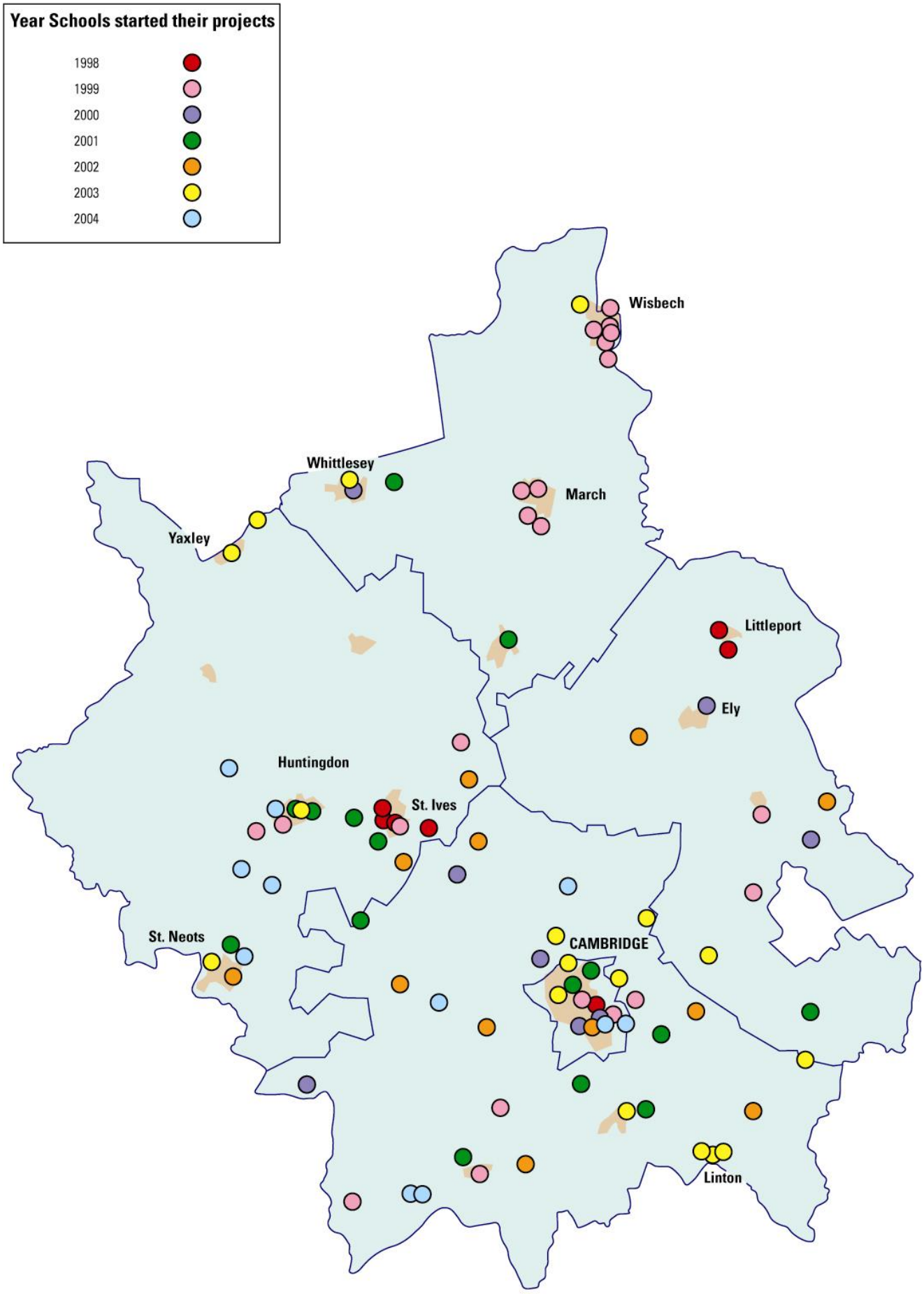
The number of schools interested in joining the project has rapidly increased in recent years. This has resulted in the development of a new application pack and prioritisation criteria that selects schools on a needs basis. For schools to qualify for selection they must have completed and analysed pupil and parent/carer questionnaires as part of their application and participated in the annual monitoring process. Schools are then prioritised with different weightings being given to the following factors:

- potential for modal shift
- accidents
- partnership opportunities
- commitment to project
- social inclusion.

> Increased pedestrian safety on routes to schools is required.
>
> *LTP consultation response*

A number of the highest priority schools are registered onto the project for a two to three year period, with the number of schools selected depending on their size and type. Schools that do not score highly can re-apply for funding in future years.

## Figure 8.4 Schools involved in Safer Routes to Schools Projects

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Once schools are enrolled on the project, Safer Routes officers work with the schools co-ordinator to establish a working group. This will typically comprise teachers, support staff, governors, parents, local councillors, and community police officers. Pupil input into the project is also greatly encouraged. Once formed the group focuses on three main aspects of the project:

- the production of a sustainable school travel plan
- educating the school and community on environment, health and road safety issues
- identification of the need for infrastructure improvements

Experience has shown that action is required in all three areas to stand the best chance of achieving modal shift.

***School Travel Plans***

The production of a sustainable travel plan is at the heart of the SRtS project. A school travel plan is a written document setting out a series of measures to reduce car use and promote sustainable travel on the school journey, with clear targets and timetables for monitoring and review. Since 2004, the SRtS team has been joined by a School Travel Advisor, funded as part of the Government's *Travelling to School Initiative*. The School Travel Advisor is responsible for assessing school travel plans against Government criteria, and play a major role in assisting schools outside the SRtS project in the development of their plans.

A school travel plan which meets the Government criteria is eligible to receive a capital grant to be spent on measures identified in the plan to encourage walking and cycling. The SRtS team have been working with schools in market towns promoting 'town wide' travel plans; to ensure that secondary schools are working with their feeder schools, to provide a consistent message to pupils as they progress through the education system.

Over the period of this LTP we will develop more targeted packs, specifically aimed at secondary schools. To ensure the continued success of SRtS it is anticipated that a 'SRtS refresher initiative' will be developed in order for sustainable transport to maintain its current high profile in schools that have participated in the project. This initiative is envisaged to have commenced in schools during 2006/07.

During the period of this LTP we aim to work with all schools in the county to encourage them all to produce a school travel plan by 2010. Further information on school travel plans can be found in Chapter 7.

***Education and Initiatives***

New guidance manuals and curriculum materials are developed by the team on an on-going basis in order to help strengthen the travel planning and educational aspects of the project. The team has also produced a series of promotional leaflets, and worked with colleagues in the Road Safety Education team to develop child-friendly guides to crossing the road. Schools are also encouraged to write a local leaflet publicising their project which is distributed to parents and children, helping to raise the profile of safer routes in the community.

As well as visiting schools to take assemblies and running activity days, the team has organised successful and popular events to coincide with National Science Week, including interactive science workshops and a visiting theatre group. In 2005, the week included a visit by Thaw the Gritter, along with members of the SRtS and maintenance division, to a primary school where children and staff were able to view the gritter up close and have their questions answered by the crew.

Stronger links are also being developed with other curriculum areas, involving an innovative pilot Personal Digital Assistant (PDA) project which helps pupils develop their IT skills while researching their travel plan. This project, funded by the DfT/DfES *Travelling to School Initiative*, has been developed by the SRtS and Education ICT service, and there are plans to extend the pilot to other schools in the county.

***Infrastructure***

SRtS project officers also manage the implementation of infrastructure improvements designed to support walking and cycling to school and improving safety. Cycle storage is very popular with schools, and 2004 saw new facilities installed at 13 schools, providing parking for nearly 500 bikes, as well as storage for cycle helmets. The SRtS project continues to fund local highway improvements including the provision of traffic calming schemes designed to reduce vehicle speeds and facilitate safer crossing points, together with improvements to footways to create a more pleasant environment for pedestrians and cyclists.

***Monitoring***

Monitoring the effectiveness of the project in securing modal shift has been difficult due to a reluctance by some schools to participate in the data collection surveys necessary to establish baseline information. This problem has since been rectified and the Council requires travel mode data for each pupil to be provided as part of the application process.

The team has also developed a countywide monitoring process which asks all maintained schools in the county to provide post codes and current modes of travel of their pupils. This procedure extracts data from existing computer records held by most schools in Cambridgeshire, thereby making the process more automated and less of a burden on schools.

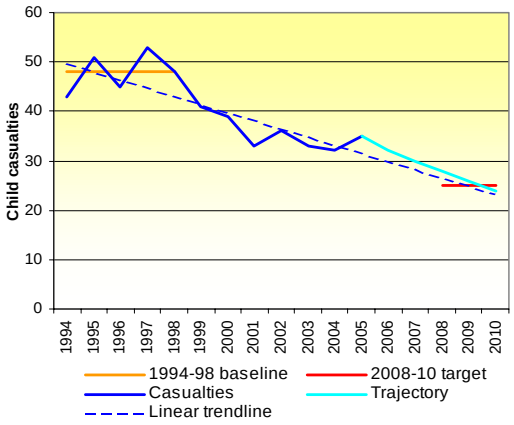
**LTP Indicator RS1b**
**Target:** No more than **26** children killed or seriously injured per annum in the period **2008–10** (rolling average).

***Evidence that the target is both ambitious and realistic***
The number of children killed on the roads in Cambridgeshire halved between 1993 and 2003. Both the target and trajectory take account of this trend and also of forecast traffic levels in the county. The programme of local safety and Safer Routes to School schemes should help to continue this downwards trend.

***Key actions of local government needed to achieve the target***
To achieve this target the council will continue to work with local schools as part of the Safer Routes to School project. It will also progress the road safety education programme and continue to implement both small-scale and major safety schemes.

***Key actions of local partners needed to achieve the target***
To help meet this target, schools will have to ensure their continued commitment to the Safer Routes to School project. The Highways Agency, the police and PARSINCAP will also have to progress initiatives to improve safety for all users.

**Figure 8.5 Indicator RS1b**




***Principal risks and how they will be managed***
Delays to the implementation of local safety schemes and lack of cooperation of partner agencies create a substantial risk to this target. Regular communication with partner agencies and thorough project management will help to minimise these risks.

Monitoring started in May 2002 with a response rate of 40%, which equates to mode of travel records for 29,256 pupils. Analysis of this sample demonstrated that 26.8% of school pupils in Cambridgeshire travelled to school by car. Monitoring continues to be undertaken on an annual basis, now in the autumn term.

There are many important benefits from the project that are difficult to quantify. Increased fitness levels among pupils will have long term implications for the heath of the nation, and the Department of Health recognises the school journey as an important opportunity to fit exercise into the daily routine. Encouraging sustainable forms of transport and reduced congestion can also lead to less pollution and increased environmental awareness.

***Indicators***

The overall indicator on which the success of SRtS will be judged is the percentage of pupils from participating schools travelling to school by car. The target for the project will be to achieve a year on year reduction in this percentage, although a specific target has not been set.

Each school has individual targets and indicators within its travel plan. These indicators are important and are tailored to the circumstances and objectives of the individual school, for example, monitoring the success of sustainable transport initiatives such as the 'Walking Bus', 'Park and Walk', or car-sharing. Such indicators may not necessarily tie in with those used to monitor the project as a whole.

***Child pedestrian training***

As part of our child pedestrian training programme, we will continue to support the 'Hedgehogs' campaign targeted at 8–12 year olds. The campaign highlights the differences between safe and unsafe places to cross the road, promotes the Green Cross Code and the 'Be Seen Be Safe' campaign. Spike, the road safety hedgehog, makes regular appearances at schools across the county to reinforce child road-safety messages. In addition to these initiatives, the County Council is also developing kerbcraft, a system that looks at teaching pedestrian skills to school children.

## National Walk to School Week

National Walk to School Week is an annual one-week campaign aimed at raising awareness of the problems associated with the school run, such as congestion, air pollution and health. The campaign is co-ordinated by the National Travelwise Association and Living Streets. Parents are encouraged to walk to school with their young children as often as possible during the week. In 2005, 57 Cambridgeshire schools participated in National Walk to School Week. The scheme has proved very successful. In 2004, 54% of children walked to school, while the number cycling to school rose by 63%. We will continue to promote the benefits of walking the home-to-school journey, such as improved road safety awareness and increased daily exercise. Congestion at the school gate is also greatly reduced, thereby improving the school environment.

## Safer Cycling Scheme

Over the period of this LTP, we will continue to support the Safer Cycling Scheme. During 2004, a total of 3,327 primary school children were trained in the safer cycling scheme; that is 54% of all eligible children. Cycle helmet wearing rates for children

Better road awareness for all users, including cyclists, should be promoted and encouraged.

*LTP consultation response*

participating in the scheme are up to 94%, from 90% last year. During 2004, a short promotional campaign to recruit volunteer cycling instructors was undertaken and as a result of this, 80 new instructors have been trained successfully.

Recent developments for the Safer Cycling Scheme include the introduction of

- a promotional poster for use by schools and Parish Council/village notice boards and magazines
- online access for schools and instructors to versions of the scheme's paperwork on the road safety pages of the council's website
- 'pedal power', an off-road course teaching children basic skills and bike maintenance. During 2004, 348 children aged 7–9 were successfully trained at 10 locations across the county.

National Walk to School Week and the Safer Cycling Scheme both help to change misperceptions

### Child car seat campaigns

Child car seat information will continue to be heavily promoted. The road safety team has worked closely with social services on the importance of fitting child car seats properly. In addition to this, road safety officers have been involved in training staff from child car seat retailers around the county about the difficulties the public experience in fitting child car seats. As part of this campaign, a child car seat checking day for the general public was run at a foodstore in Wisbech, the checks were carried out by an expert from the 'In-Car Safety Centre' at Milton Keynes. Road safety officers also visited health centres in St. Ives and Soham to inspect child car seats and give advice and information. Further campaigns are planned throughout the LTP period.

### School-crossing patrol service

A recent recruitment campaign has helped to ensure that, on average, 97% of all school crossing patrol sites in the county are fully staffed throughout the year. The campaign 'A little of your time could mean a lifetime to a child' was promoted in partnership with Cambridge City Football Club via match day programmes, advertising hoardings and a website advert. An advert was also placed in the *County Council Environmental Guide for 2003/04* and was distributed to 50,000 residents in Cambridge and surrounding villages. We have continued our driver awareness campaign 'Stop Means Stop' with Cambridge City Football Club. The campaign logo message was:

- on an advertising hoarding at the football ground
- printed on match day programmes
- printed on the ladies' team kit
- promoted via adverts placed on the clubs website.

In-car campaign stickers were also distributed to 6,000 reception year schoolchildren. A total of 10,000 advisory leaflets and car stickers were distributed via libraries, service stations and doctors surgeries. Media coverage emphasised the importance of stopping when requested to do so by a school-crossing patrol and highlighted the penalties faced by drivers who do not stop.

## Urban areas

Road safety risks in urban areas impact particularly on vulnerable road users. Pedal cyclists and pedestrians experience a high risk of death and serious injury especially in urban areas. In Cambridge, about half of all road traffic accidents involve pedal cycles. This reflects the above average level of cycling in Cambridge and does not indicate an increased risk to cyclists. We are committed to reducing the number of vulnerable road users involved in injury accidents in urban areas to improve quality of life and promote community safety. To achieve this we will:

- provide safe cycle routes along main roads
- continue to improve provision for cyclists in Cambridge and the market towns
- continue with the extension of the Cambridge Core Traffic Scheme, to improve the environment for cyclists and pedestrians
- provide a network of walking routes for the market towns.

### Cycle safety campaign

We will continue to progress the annual cycle safety campaign in Cambridge which targets young adult cyclists, particularly the student community. The aim of the campaign is to raise awareness of the problems faced by both drivers and cyclists on the city's streets. The *Cambridge Evening News* supports the campaign by including articles explaining how drivers can protect cyclists and how cyclists can ensure their own safety. Cambridge Police also support this campaign by enforcing the use of bike lights in Cambridge city centre.

As part of the campaign, road safety officers attend the annual Cambridge University Freshers Fair to promote safer cycling. At the fair in 2004, cycle route maps were distributed to encourage cyclists to make use of the dedicated cycling facilities in the city centre, and approximately 89 sets of cycle helmets, lights and locks were sold.

## Rural areas

Just over half of all casualties occur on rural roads – including the main corridors and trunk routes in the county – while around 70% of deaths occur on rural roads. This can be linked in part to the high levels of traffic on the county's rural roads and the fact that accidents in rural areas often revolve around vehicle occupant casualties, with higher severities associated with higher traffic speeds. It may also be attributed to the fact that, on average, people in rural areas travel further, thereby increasing the length of time they are at risk of being in an accident. Improving road safety in rural areas is therefore a key part of our programme, benefiting both community safety and enhancing quality of life.

Part of our approach to reducing the number of accidents in rural areas includes the Community Speed Watch Partnership and speed management measures, discussed below.

### Community Speed Watch Partnership

The Cambridgeshire Speed Watch Partnership was launched in 2002 to help residents reduce speeding and improve quality of life by providing support and advice. The project is a partnership between Cambridgeshire County Council, Cambridgeshire Police and participating Parish and Town Councils. The project involves considerable work with the community to identify problem areas and the level of the problem. Advertising campaigns and local meetings are used together with low-level police involvement to encourage local residents to abide by the speed limit in their, and other, communities. A full-time Speed Watch Liaison Officer was appointed in 2002 and is responsible for the day-to-day management of the initiative.

The aims of the partnership are to:

- help local people address speeding problems in their area
- increase public awareness of the dangers of speeding
- provide help and advice to local communities to enable them to make their roads safer
- promote the 'Kill your Speed – Make the Commitment' campaign
- involve all sections of the community, including the Parish or Town Council, local residents, businesses, and the police.

The scheme will help to improve community safety and personal security. We hope to extend this programme to include additional parishes over the period of this LTP.

## Speed management

Speed is a key contributory cause of road traffic accidents resulting in casualties, particularly on rural roads. For this reason speed management measures have an important role to play in reducing the number of accidents involving motor vehicles. The County Council Speed Management Policy encourages drivers to travel at an appropriate speed for the road environment thus enhancing the quality of life for local residents and reducing the potential for accidents. This policy compliments the work undertaken by the Cambridgeshire Safety Camera Partnership to reduce accidents caused by excess speeds. The design and use of traffic management measures is given careful consideration before implementation.

### Lower speed limits

The County Council will work towards the introduction of a 30mph speed limit in the developed parts of all villages in the county together with, where appropriate, complimentary features to persuade drivers to travel at an appropriate speed. This initiative is a key element in improving road safety in Cambridgeshire.

The programme we are implementing to achieve this has two stages.

#### *In rural areas*

*Stage 1*

- To complete the review of our existing 40mph speed limits in residential areas and implement appropriate speed reduction schemes to enable these limits to be realistically reduced to 30mph.

*Stage 2*

- To commence the review of existing 30mph speed limits where either the record of speed-related accidents is of concern or where 85th percentile speeds are inappropriate for such a limit.

> Traffic needs to be slowed down on rural roads.
>
> *LTP consultation response*

We have already implemented the first stage of our speed management policy in rural areas and we are now in the second stage. We work closely with the police and will only reduce speed limits where we are able to implement appropriate speed reduction measures to ensure that the lower speed limit is largely self-enforcing and is not likely to create an enforcement problem.

***In urban areas***

- To continue to implement 20mph zones in urban areas with appropriate speed control measures.

In urban areas, we are reducing some 30mph speed limits to 20mph where traffic calming and environmental improvement schemes have made such action possible and appropriate.

### Speeding campaigns

There are a number of speeding campaigns running in the county:

- 'Make the Commitment', a local publicity campaign seeking support for anti-speeding messages in the community.
- 'For my Girlfriend', a regional campaign, targets young drivers between the ages of 17 and 25. As part of the campaign a crash reconstruction involving all the emergency services took place at Huntingdonshire Regional College. Approximately 200 students took part in the reconstruction to see two of their fellow students being cut from the wrecked car. The campaign won an international Prince Michael Road Safety Award in 2004 and now has its own website www.fmg.org.uk.
- 'Kid yourself' and 'Still kidding yourself', local radio campaigns seek to target all drivers with an anti-speeding message.
- speed awareness workshops for drivers facing prosecution, fixed penalty fine or penalty points for speeding offences.

### Cambridgeshire Safety Camera Partnership

The Cambridgeshire Safety Camera Partnership operates the speed enforcement cameras in the county at those locations with a history of personal injury accidents. The overall aim of the project is to reduce casualties on the roads in Cambridgeshire and Peterborough. This is achieved by high visibility enforcement of speed limits. Since the partnership was formed in 2001, safety cameras have contributed to a 55% reduction in the number of deaths and serious injuries. There has also been a 17% reduction in average speeds at new camera sites, this equates to a reduction of 7mph on average.

From 2007/08 onwards funding for safety cameras will be integrated into the LTP system in order to enhance road safety programmes. In addition, funding has been allocated to the Highways Agency to enable them to continue to participate in local road safety partnerships. This increase in overall funding for road safety will make an important contribution towards our programme for reducing road casualties in Cambridgeshire. **Appendix 7** sets out how our road safety programme will help achieve our targets for reducing casualties.

The partnership is made up of the following organisations:

- Cambridgeshire County Council
- Peterborough City Council
- The Highways Agency
- Cambridgeshire Constabulary
- The Crown Prosecution Service
- Cambridgeshire Magistrates' Court Service
- Cambridgeshire Fire & Rescue Service
- Cambridgeshire NHS Primary Care Trusts
- Cambridgeshire Ambulance Service.

To challenge the public's negative perception of cameras, a 'saving lives' message was created and spread throughout the region. Buses, cinema screens and local radio stations continue to carry adverts promoting the website (www.cambssafetycameras.co.uk) with all the locations of the fixed camera sites.

## Road safety at work

It is estimated that around a third of all road traffic accidents in the UK occur when one or more of the drivers are driving on work business. In Cambridgeshire, this equates to over 800 collisions each year, and in the UK up to 1,000 deaths annually. This makes driving at work one of the riskiest work-related activities.

**LTP Indicator RS1a (BV99x)**
**Target:** No more than **360** killed or seriously injured per annum by **2010.**

**LTP Indicator RS1a LPSA (BV99x)**
**Target:** No more than **447** killed or seriously injured per annum on average in **2005, 2006 and 2007.**

***Evidence that the target is ambitious and realistic***
In the last ten years the number of deaths and serious injuries in Cambridgeshire has fallen by 20% despite a 30% increase in traffic. However, a breakdown of the figures indicates that the number of motorcyclists suffering death or serious injury has been increasing. The fact we have set a LPSA target is further evidence that this target is ambitious.

We expect that with the continuation of our programme of local safety schemes the number of deaths and serious injuries will continue to decline.

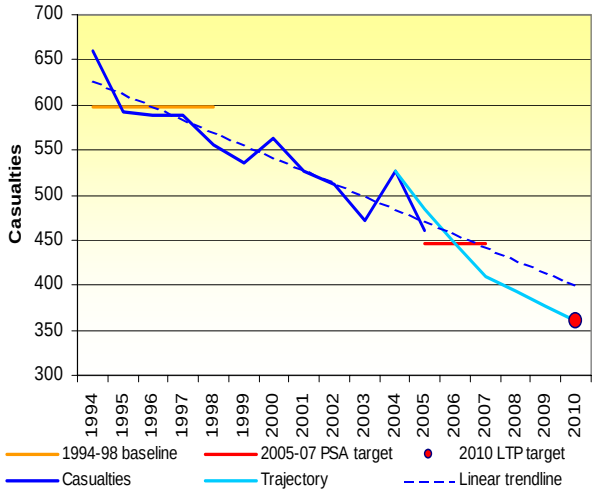
***Key actions for local government***
The council will continue to deliver safety schemes and work with local partners to promote road safety, anti-speeding campaigns and drink-drive initiatives.

***Key actions for local partners***
To meet these targets, local partners, like the Police and the Highways Agency, must remain committed to working in partnership with the council. Members of PARSINCAP will have to carry on with their successful approach to road safety promotion.

***Principal risks and how they will be managed***
The main risks to the achievement of this target include higher than forecast increases in traffic growth; and delays or failure to deliver safety improvements. Measures we will put in place to manage these risks include the following.

- continuing our programme of road safety education and publicity
- close working with partners to ensure timely delivery of schemes and initiatives

**Figure 8.6 Indicator RS1a**




In 2003, the Health and Safety Executive announced new guidance to help employers manage road risk for their employees called 'Driving at work – managing work-related road safety'. We have contributed to the LARSOA (Local Authority Road Safety Officers Association) CD Rom *Driving your business risk down.* This is an interactive CD suitable for organisations starting to develop road safety policies from scratch as well as those with existing policies in need of review and update. The CD was launched in Cambridgeshire at three seminars for local businesses. Initial feedback suggests that the CD will enable businesses to put comprehensive measures in place, to comply with current legislation. Further seminars are planned throughout the county in addition to a follow up of those businesses that attended the original seminars. This innovative resource was awarded the prestigious Prince Michael International Road Safety Award in 2004.

All partner organisations in the county, such as Local Strategic Partnerships and Primary Care Trusts (PCT), are being encouraged to adopt 'at work' road safety policies and procedures for their staff. During 2004, East Cambridgeshire and Fenland Local Strategic Partnerships and Cambridge City PCT committed themselves to tackling this issue in 2005.

## County Council management of work-related road safety

Since 2001, the council has been managing the road risk of staff who drive while on council business. This includes:

- carrying out risk assessment of at 'work journeys'
- introducing policy for driving at work
- tightening the restrictions on lease vehicle availability
- introducing a manager's guidance to ensure compliance with policy
- introducing accident reporting procedures

A key element of this is to provide driver training to all staff driving in excess of 3,000 business miles each year. This training assesses the driver's risk of becoming involved in a road accident and suggests ways to reduce the risk. Additionally, every lease car driver, and member of staff who drive a minibus, undertakes a similar training package. These initiatives compliment the Cambridgeshire County Council Travel for Work Plan discussed below.

## The Cambridgeshire Travel for Work Plan

The Cambridgeshire Travel for Work Plan includes a package of measures aimed at promoting travel choice and achieving modal shift among council staff. It also promotes work-related road safety, including advanced driver and motorcycle training. Its main objectives are to:

- improve the efficiency and quality of life of council employees by minimising the hassle and frustrations arising from traffic delays, extended journey times and queuing for car parks
- reduce the financial burden on employees arising from their need to travel to and for work
- reduce the council's contribution to congestion on the county's roads
- reduce the environmental impact arising from the council's travel needs
- demonstrate community leadership in the field of travel.

To achieve these objectives the council will

- improve passenger transport
- promote car sharing
- encourage flexible/remote working

It is hoped that these measures will reduce congestion, encourage increased usage of sustainable modes of transport and promote safety while travelling on council business.

## Motorcyclists

We recognise that mopeds and motorcycles provide an alternative means of transport for many trips where public transport is limited and walking and cycling are impractical. However, emissions from many larger motorcycles are no better than those for modest-sized cars and the largest motorcycles produce higher levels of particulates. While there can be beneficial effects of motorcycling in terms of congestion, they are less than those achieved by greater car occupancy or increased use of public transport, and are outweighed by detrimental road safety and air quality outcomes.

Motorcyclists in Cambridgeshire account for about 2% of the road user population and 20% of the county's killed or seriously injured casualty figures. The majority of those killed are male, aged over 30, riding for leisure on high-powered machines. Motorcyclists in Cambridgeshire are twice as likely to be killed as pedestrians per billion person kilometres. The risk to motorcyclists is 60% higher than that experienced by pedal cyclists and over 100 times greater than that of bus passengers. Motorcyclists are 37 times more likely to be involved in an accident than a car occupant. This worrying trend is reflected throughout the Eastern region. So the Eastern region 'Hit the Road' campaign was launched in May 2004 to tackle it.

An increase in motorcycling would therefore give rise to a disproportionate rise in the number of road traffic casualties. For this reason we are not proposing to introduce any measures that might encourage such an increase. At the same time, and recognising the use of motorcycles as an alternative means of travel in certain circumstances, we will not seek to discourage motorcycling.

This is the first time we have taken a fully 'cross-cutting' strategic review of both:

- the wider motorcycling transport needs and provision
- casualty reduction measures for this road user group

The Cambridgeshire Motorcycling Strategy forms **Appendix 9** of this LTP

### Highway improvements

We are committed to improving road safety and the needs of motorcyclists will be taken into consideration in the design of all highway improvements where motorcycles are permitted. We do not, however, propose to permit motorcycles to use bus lanes.

### Other safety measures

A classroom-based training package, funded by the County Council with Cambridgeshire Police, and entitled 'CLTPM Rider Motorcycle Training', is designed to help any motorcyclists who wish to improve their riding skills. In addition to this, we have increased the advertising of motorcycle safety messages in local newspapers and on local radio. We have also invested in a new mobile exhibition trailer, to be used in the spring and summer of each year, to target motorcyclists:

- on well known 'biker routes'
- on stretches of road with a motorcycle crash problem
- at motorcycling events throughout the county.

BIKERS courses are offered to support this initiative. These evening-class theory courses for full motorcycle licence-holders ran during 2004 with 59 riders attending. Further courses are planned during this LTP period, in conjunction with Cambridgeshire Police. These courses will continue to be promoted through the mobile exhibition trailer and at roadside stops.

### Motorcycle parking

Public motorcycle parking spaces are provided at key locations throughout Cambridge and the market towns, and at the Park & Ride sites. This level of provision is appropriate for present use. These spaces will be maintained in

their present location where possible. Although there are no current plans to increase the number of parking spaces at present within urban areas, we will seek to improve the quality of existing sites to improve security and safety.

At present there are no proposals to introduce parking charges for the use of motorcycle parking spaces in Cambridge and the market towns, however this may be reviewed in the light of emerging local strategies.

Emerging Local Development Frameworks will consider appropriate motorcycle parking standards, including both security and stowage of helmets.

## Misperceptions of safety

Public perceptions of safety can have a significant impact on travel choice. Cars are often perceived to be safer than cycling or walking, resulting in increased car use. Therefore reducing the perceived danger of cycling and walking compared to car travel could help to encourage modal shift away from the private car towards public transport, cycling and walking. There is a growing fear among parents regarding the safety of children on the journey to school, consequently more children are being driven to school than in the past, and this can lead to increased congestion and pollution.

Additionally, it is important that people feel safe when waiting for public transport, also when they are walking, cycling or using public transport.

One aspect of this is the fear for personal safety. Crime and fear of crime within the transport network act as barriers to encouraging the use of public transport, walking and cycling. Addressing crime and the fear of crime can also help to improve accessibility and reduce congestion.

Initiatives that contribute to changing misperceptions of safety include:

- Safer Routes to Schools
- School travel plans
- Safer cycling schemes
- National Walk to School Week
- Education, training and publicity campaigns.

Vision: To create a safer and healthier East Cambridgeshire where people can live and work in an environment free from crime and the fear of crime.

*East Cambridgeshire Community Safety Strategy*

## Tackling crime

The Crime and Disorder Act 1998 gives a statutory responsibility to local authorities, police forces, the probation service and the fire service to form partnerships with key agencies to reduce crime and disorder in their area –this includes acting to improve safety on the transport network. In Cambridgeshire, we have formed partnerships at the district area level to:

- ensure compliance with the Crime and Disorder Act
- help the local partnerships develop processes to manage performance, finance and mainstream services in community safety.

Four areas are included in the action plans, the:

- strategy for delivery
- information strategy
- mainstreaming (of community safety)
- strategic involvement of health and probation.

We are currently developing an understanding of the costs of crime to inform our spending decisions on crime reduction. This will build on the wide range of existing crime-reduction activity that is already in place. Our initiatives include the following.

- Improving car security is one of the main issues addressed by the quality partnership for the Park & Ride network. All Park & Ride sites in Cambridge, as well as other off-street car parks have now been fitted with CCTV. Reported crimes within these car parks have fallen from a high of 372 in 1996 to 17 in 2002/03.
- Enhancing pedestrian and cyclist safety is tackled by:
  - The provision of CCTV
  - Improved street lighting
  - Improved maintenance of pavements, cycle lanes footpaths and vegetation.
- Designing-out crime in new developments.

In addition cyclists benefit from

- a continued programme of putting secure cycle stands at key points across Cambridgeshire
- a continued programme of events at strategic locations across Cambridge to code cycles to improve cycle security.

In general, our objectives are to:

- reduce the opportunities for crimes to occur
- improve the collection of information
- promote public education on improving vehicle safety.

In the longer term, we will help young people to explore positive alternatives to vehicle crime.

## Partnerships

Key to our approach to reducing the number of accidents is the work undertaken with our partners. In order to better co-ordinate and integrate the work of all agencies responsible for road safety, we have formed a road safety partnership to deliver a common strategy. Formed in 2002, PARSINCAP (Partnership for Road Safety in Cambridgeshire and Peterborough) brings together the skills, resources and expertise of:

- Cambridgeshire County Council
- Cambridgeshire Constabulary
- Cambridgeshire Fire & Rescue Service
- Peterborough City Council
- East-Anglia Ambulance NHS Trust
- The Highways Agency
- Cambridgeshire and Peterborough Public Health Network
- Mid-Anglia General Practitioner Accident Service (MAGPAS).

**Oxmoor Action Plan – A new heart for Oxmoor**

Oxmoor is a former Greater London County Council overspill housing area, where the layout comprises a hierarchy of spine roads and cul-de-sacs with a separate network of footpaths often running through open space. Problems with this type of housing, including the fear of crime, have become clear over time.

The Action Plan aims to improve the quality of life for those living in Oxmoor. It specifically focuses on creating a safer place to live, improving the local environment and promoting greater access to services and information.

The LTP can assist in meeting the aims of the action plan. In particular, safe cycle routes and high quality footways will provide safe and direct routes. In addition, improved street lighting and pedestrian crossings will greatly improve the quality of life in the area, helping people feel safer when they are moving around Oxmoor.

PARSINCAP supports close working relationships between all the above agencies in the prevention of road traffic-related deaths and injuries. PARSINCAP provides an extremely good example of successful partnership and cross-boundary working.

The partnership also works towards achieving the Government's national casualty reduction targets through the four methods of:

- enforcement
- education
- engineering
- epidemiology (the study of patterns of road traffic injuries).

During 2004, PARSINCAP:

- recognised the need to address the emerging issues of driving while under the influence of drugs. The county Drug & Alcohol Action Team has funded a drug-driving publicity campaign
- gave continuous support to the work of the MAGPAS Cambridgeshire Trauma Audit and Research Project (looking at the cause and treatment of road traffic-related deaths and serious injuries)
- developed ways of encouraging local employers to manage the road safety of their staff while at work (see road safety at work section)
- supported the Community Speed Watch initiative in rural villages (reported later in the chapter)
- maintained support for introducing speed awareness seminars for drivers detected by roadside safety cameras in Cambridgeshire and Peterborough
- presented two Young Driver Safety events at March and St. Ives, which also included working with Community Safety, car dealerships, Youth Offending Team, District Councils, Trading Standards and RoSPA
- worked with Primary Care Trusts by attending health fairs, offering advice and information on child car seats and the dangers of drink driving.

PARSINCAP will continue to support these programmes and is progressing plans to introduce Speed Workshops in Cambridgeshire and Peterborough, to help combat the single largest contributory cause of road traffic accidents in the UK. The group will also focus on the increasing number of motorcycling fatalities. Issues for consideration include, increased training opportunities for riders, involvement of private sector training bodies, and partnership working with police at roadside stops.

### Huntingdonshire Accident Prevention Group (HAPG)

This multi-agency accident prevention group produced its accident prevention strategy in 2004, for the Huntingdonshire Primary Care Trust area. The HAPG is a group of practitioners who will deliver a programme of activities to meet the targets in the strategy. Road safety priorities for the group will include child car seats, cycling safety and young driver safety.

In addition to the above partnerships, the County Council also takes an active role in the following groups.

- Road Safety in the East of England
- Eastern Region Local Authority road safety officers group
- Eastern region accident reduction group

**The A14 Project**

A key benefit of our involvement in PARSINCAP has been the opportunity to work jointly with the Highways Agency on a driver safety publicity campaign on the A14 trunk road between Cambridge and Huntingdon. It was the first time that the Highways Agency have worked on a publicity campaign with a local authority to target a particular route. The 'THINK A14' programme ran from June to December 2005, forming a wider package of measures, involving the police, to make the A14 safer.

The campaign had two main catchphrases.

- Slow down, Back off! – reminding drivers to travel at a suitable speed, within speed limits, and to keep a good distance from cars in front
- Switch off, belt up! – reminding drivers no to use their mobile phone while driving, and to always wear a seat belt

The campaign launch coincided with 'Operation Mermaid', an enforcement drive by Cambridgeshire Police to target Heavy Goods Vehicles on the A14. Campaign messages appeared on bus-back posters and radio advertising. Posters and leaflets were widely distributed across the county and a great deal of positive press attention was received.

The campaign proved to be highly successful and we look forward to working closely with the Highways Agency on future projects.

## Road safety education, training and publicity

In addition to our capital funded road safety engineering programme, we will continue use revenue funds to develop our road safety education, training and publicity campaigns. Details of our expenditure for this area are contained in Chapter 12. Around 70% of those seriously injured in road accidents are male, while the peak age is 18. Road safety, education and publicity initiatives are being increasingly concentrated on this age group. The main elements of the strategy for education and training include the following.

- Pre-Schools and Nurseries – innovative use of Road Safety toy bags and Spike the Hedgehog, the Road Safety Section's mascot.
- Primary schools – specialist support for Road Safety Days and Safety Zones complimented by educational resources.
- Theatre In Education (TIE) – road safety theatre productions to reinforce safety messages, including Game Over, for Year 7 pupils, and It Could Be You, for Year 11 and Sixth Form students.
- Secondary schools – theatre productions supported by a safety magazine and other contributions, as requested by schools.
- Out-of-school clubs – promoting road safety messages to young people through holiday clubs.
- Pre-Driver Training (PDT) – working in schools, to educate pre-drivers on safety issues, including motorcycling.
- Occupational Road Risk (ORR) – taking forward the Government-led research that established that around 33% of all road crashes occur when drivers are at work we are working in partnership within the Eastern Region to develop a toolkit aimed at small to medium-sized businesses on behalf of the national Local Authority Road Safety Officers Association (LARSOA).
- County Council Occupational Road Risk Management – this provides driver training to all drivers who drive on business for the County Council.
- National Driver Improvement Scheme (NDIS) – we will continue to assist with the NDIS course.
- 'Name the Gritter' competitions to support 'Be Safe Be Seen' and general winter driving advice.

The main parts of the publicity strategy that support national campaigns include the following.

- Drinking and driving – continuing support for DfT Drink-Drive campaigns, joint working with pubs in Cambridge to launch 'mocktails' (non-alcoholic drinks), working with the fire brigade to organise crash simulation outside the station, organised interviews with a family who lost their daughter to a drunk driver, and a racing simulator at Cambridge Regional College.
- Child pedestrian safety – reinforcing national campaigns through publicity using Spike the Road Safety Hedgehog and targeting 8–12 year olds by distributing national campaign material.
- Seatbelts and child car seats campaigns – working with the Police to raise awareness of rear seatbelt wearing among secondary school pupils alongside national campaigns and promoting the safe use of child car seats with checking days at superstores.
- Driver tiredness – raising awareness of mobile phone laws and supporting national DfT campaigns.
- National Road Safety Week – road safety officers in the Eastern Region work together to produce region- wide publicity campaigns. These include; promoting the use of seatbelts; motorcycling campaigns; drink and drug driving campaigns and school crossing patrols; 'For My Girlfriend', which targets young drivers aged 17–25
- Local campaigns – these include: cycle safety, focusing on students and helmet wearing; 'think cycling' which is a network working jointly on cycle publicity initiatives; speeding; horse riders; producing a Drivers Guide; safety cameras and winter driving.

Combined, these activities will help to promote healthy communities and improve community safety and personal security. They will also assist in promoting changes to travel behaviour.

**LTP Indicator RS1c (BV99z)**
**Target:** No more than **3,000** slight casualties per annum by **2010.**

***Evidence that the target is ambitious and realistic***
Over the period of our first LTP the number of people suffering slight injuries has not fallen as quickly as we hoped. Based on the experience during the first LTP and the knowledge gained from the implementation of safety schemes and their impact on reducing casualties. We estimate in the future, that slight casualties are likely to remain at a level consistent with that seen at present. While devising this trajectory, we have considered traffic growth forecasts, our road safety and maintenance programme in this LTP, and expected funding levels up to 2010.

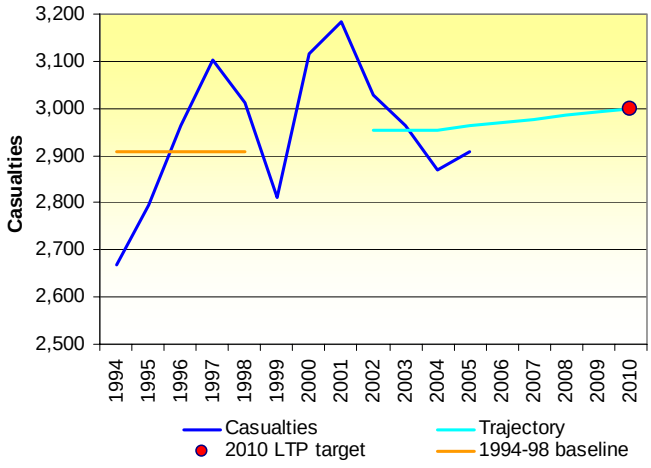
The target to maintain levels of slight injuries at current levels equates to a 20% drop in the rate of casualties per million vehicle kilometres, taking account of predicted traffic growth in the period to 2010/11.

***Key actions for local government***
To achieve this target, the council will continue to implement both minor and major safety schemes over the period of this LTP.

***Key actions for local partners***
Local partners, including the police, road safety partnerships and the Highways Agency, will need to support our policies for improving road safety and implement their own initiatives where appropriate.

***Principal risks and how they will be managed***
The principal risks to the achievement of this target include delays to the implementation of safety schemes, and increases in traffic levels above forecast. We will manage these risks by reviewing accident patterns and our programme continuously, to enable expenditure to be focused where needed.

**Figure 8.7 Indicator RS1c**




## Programme for road safety

Our road safety engineering programme will continue to target specific clusters of accidents, recognising that where these occur will change over time in a way that cannot always be predicted. The current situation is shown in Figure 8.8. Our road safety programme (as with our highway maintenance programme discussed in Chapter 10) cannot follow the sequence of corridors used elsewhere in the strategy. We will, however, co-ordinate safety measures with corridor improvements wherever possible, so as to minimise disruption on the transport network.

### Safety schemes

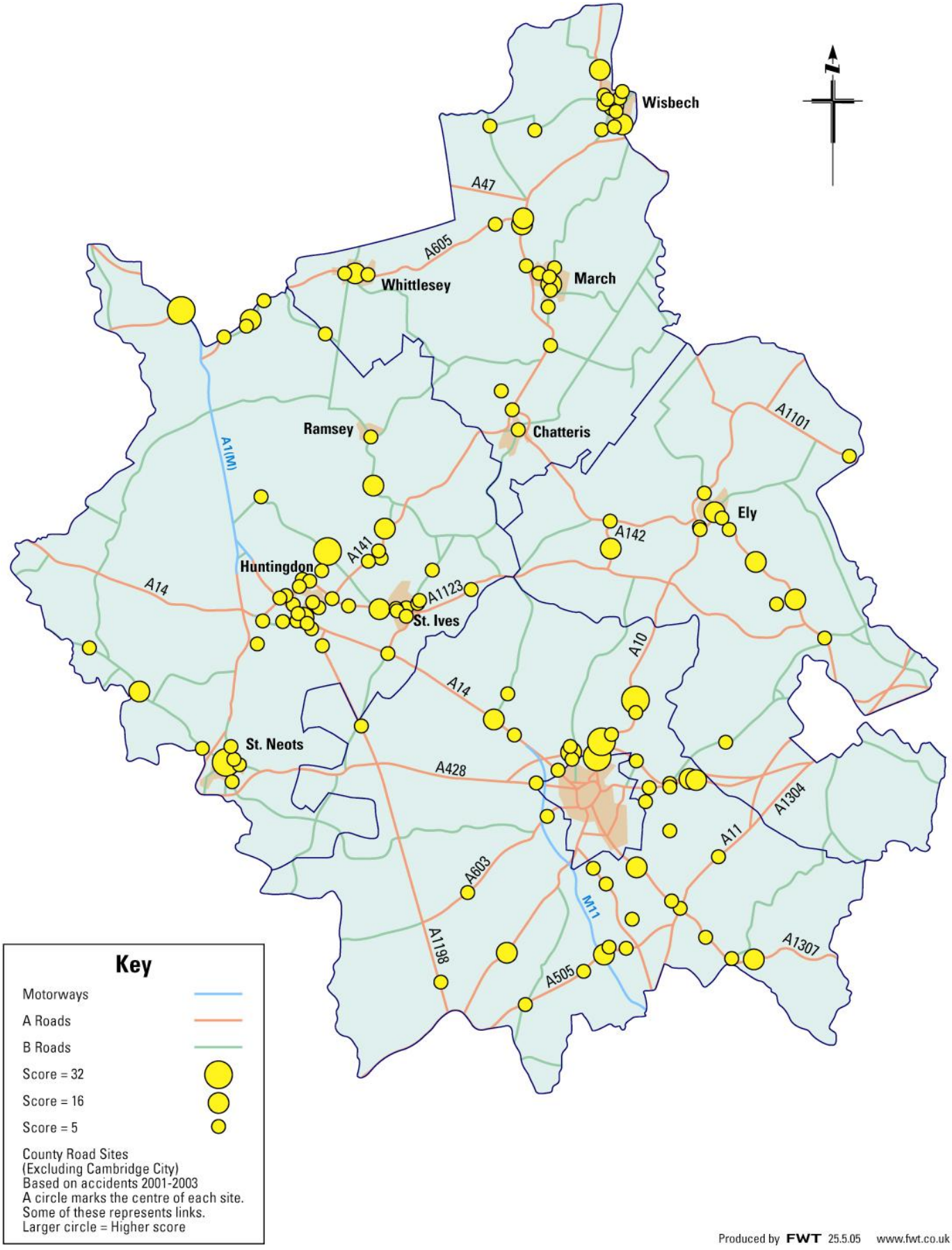
We have a well-established methodology for implementing cost-effective safety schemes. An analysis has been carried out of all the accident remedial schemes undertaken in Cambridgeshire for which full 3-year post-scheme data is available. Figure 8.10 summarises this analysis. Low-cost measures are expected to achieve a much higher return than higher cost measures, therefore providing better value for money, and this is borne out by our experience.

Low-cost measures are always considered initially for any site. Higher cost measures are only considered when no low-cost measures are appropriate or where low-cost measures have not proved effective.

The value and effectiveness of road safety schemes is constantly monitored, and reported in our annual Network Monitoring Report[10]. The programme of road safety schemes also provide added value to other areas of our programme. For example, junction improvements will often include an element of road maintenance, while other schemes will involve the resurfacing of cycleways, both improving safety and encouraging more people to cycle.

[10] See http://www.cambridgeshire.gov.uk/transport/monitoring/network/

**Figure 8.8 Accident cluster sites**



**LTP Indicator RS2**
**Target:** Baseline of 40% set in 2004/05. Target to be set in 2006/07.

***Evidence that the target is ambitious and realistic***
The Sideways-force Co-efficient Routine Investigation Machine (SCRIM) value measures the wet-skid resistance of the road surface. The methodology for this measurement has been changed so figures for 2004/05 onwards cannot be directly compared to previous data for this indicator. Figure 8.9 shows past progress using the old methodology for this indicator. At the current time the 2005 condition data has not been analysed in enough detail to allow a robust target and trajectory to be set. This work will be completed by July 2006.

***Key actions of local government needed to achieve the target***
To meet this target, the council will need to ensure that maintenance is carried out in a timely manner.

***Key actions of local partners needed to achieve the target***
Contractors will need to be involved early in scheme design if they are to make a positive contribution to the effective programming and delivery of schemes.

***Principal risks and how they will be managed***
The UK Climate Impacts Programme (UKCIP) is predicting drier summers and wetter winters by 2020, which will mean the dry summer of 2003 could become the norm. This would cause increased amounts of damage to road surfaces in Cambridgeshire. Adaptation strategies (see page 111) to minimise the risk of future damage will have a cost implication, although this may be less than remedial works at a later date.

**Figure 8.9 Past progress on wet-skid resistance of principal roads**

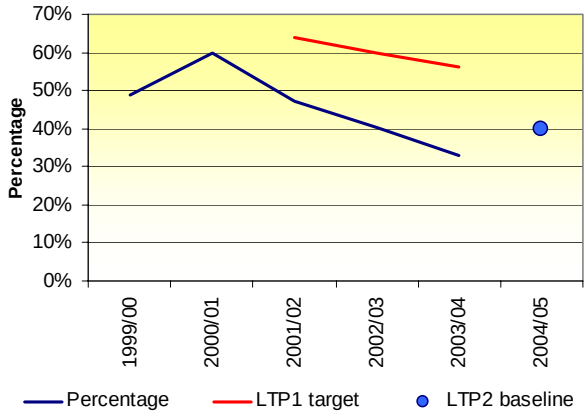



**Figure 8.10 Safety scheme effectiveness**

| Programme year | Scheme cost | No. of schemes | Total cost (£m) | 3 yr accident saving | Value of 3 yr accident saving (£m) | 1st yr rate of return % |
|---|---|---|---|---|---|---|
| 1999 | Under £25,000 | 11 | £0.130 | 12 | £0.847 | **218** |
| | Over £25,000 | 9 | £0.459 | 13 | £0.930 | **67** |
| | **Total** | **20** | **£0.589** | **25** | **£1.777** | **100** |
| 2000 | Under £25,000 | 12 | £0.134 | 13 | £1.025 | **225** |
| | Over £25,000 | 6 | £1.252 | 37 | £2.991 | **80** |
| | **Total** | **18** | **£1.386** | **50** | **£4.016** | **97** |
| 2001 | Under £25,000 | 13 | £0.063 | 16 | £1.335 | **703** |
| | Over £25,000 | 3 | £0.414 | 20 | £1.772 | **138** |
| | **Total** | **16** | **£0.477** | **36** | **£3.107** | **213** |

We have a good record of intervention at problem sites. Our target is to achieve an average 50% first year rate of return on accident remedial measures. Schemes are identified from the County accident site list. All sites with five or more personal injury accidents are identified from the County accident database. Sites are ranked for investigation in order of the number and severity of accidents.

Accident remedial measures are implemented in three cost groups. Major schemes costing over £500,000, medium sized schemes costing between £35,000 and £500,000, and minor accident remedial measures costing under £50,000. The overlap between medium and minor schemes is to allow flexibility as each uses a different contract delivery vehicle. Figure 8.11 sets out our programme of medium sized safety schemes for 2006/07 and 2007/08.

Lower cost measures achieve very high rates of return, often in excess of a 10-fold benefit – excellent value for money. Higher cost measures are only considered when no low cost measures are appropriate or have not been found to be appropriate. Medium sized schemes are prioritised on the basis of their potential for accident reduction, and their impact on pedestrians, cyclists, public transport, congestion and the environment. Typical medium sized schemes would be the introduction of traffic signals or traffic calming.

**Figure 8.11 Programme of safety schemes 2006–2008**

| Scheme | 2006/07 | 2007/08 |
|---|---|---|
| High Street, St. Neots | ✓ | |
| Gilbert Road, Cambridge | ✓ | |
| B1040 Ramsey | ✓ | |
| London Road, Chatteris | ✓ | |
| A1101 Leverington | ✓ | |
| Murrow Bank | ✓ | |
| Walton Road | ✓ | |
| Sawtry | ✓ | |
| Newmarket Road / Coldham's Lane, Cambridge | | ✓ |
| A1307 Horseheath | | ✓ |
| A10 Frog End | | ✓ |
| A1301 Great Shelford | | ✓ |
| New Road, Sawston | | ✓ |

The needs of all road users are considered in scheme development and increasingly schemes will address several objectives of the LTP in addition to casualty reduction. Safety audits are carried out on all significant changes to the highway network.

### Major Safety Schemes (costing over £500,000)

Accident remedial schemes aim to produce the maximum reduction in casualties for the lowest cost. Low cost measures are considered for every accident site, but in some cases these measures are not effective. In Cambridgeshire, this is generally the case at priority junctions on high speed rural roads with a problem of right turning accidents.

Over the last 12 years 9 sites have been dealt with by the introduction of roundabouts costing between £750,000 and £1.5M. These have been very effective, producing an average reduction in accidents of 76%, an 84% reduction in serious accidents and the elimination of fatal accidents.

During the first year of this LTP we are proposing to implement one major safety scheme, at the A141 / A605 “Hobbs Lot” junction, north of March

Funding is currently allocated for a major safety scheme in the final year of this LTP, 2010/11. However, at this stage, owing to changes in accident records and so on, we have not yet decided at which site this safety scheme will be implemented. All accident sites are continually monitored and this information will inform our decision.

### Safer Routes to School

The Safer Routes to School project continues to be a key part of our road safety programme. Over the LTP period, we will work with around 15-20 new schools per year to improve safety for children around the school and to encourage more sustainable modes of travel for the journey to school. In a typical year we will provide secure cycle parking facilities, improve the pedestrian environment, introduce speed reduction measures, and install new road crossings. We will also encourage the schools to implement a travel plan to further encourage children and parents to use more sustainable modes of transport. The SRtS programme will help to improve road safety and reduce the number of accidents resulting in child casualties.

### Road maintenance and road safety

Many of our maintenance schemes bring about safety benefits through good scheme design and the integration of safety measures into the schemes, quite apart from the safety benefit that well-maintained roads bring. Further discussion of these issues can be found in Chapter 10.

## Revenue funded programme

Over the last ten years, we have treated on average between 13 and 14 accident cluster sites each year using revenue funding from the Minor Accident Remedial schemes budget. On average, each year’s programme has resulted in a reduction of an additional 27 crashes per year giving an average of 788% first year rate of return. On average this activity has resulted in an additional reduction of 38 casualties. Therefore our revenue funded road safety programme has a direct impact on our targets to reduce the number of casualties on Cambridgeshire’s roads.

In 2004/05 forty-three accident cluster sites were treated despite only minimal increases in funding. The nature of the works carried out ranged from the provision of signs through bend improvements, anti-skid surfacing, surface retexturing, changed road markings to footway improvements. On the basis of previous activity we can expect a marked decrease in casualties at these sites. The revenue funding has been used in tandem with our capital expenditure to improve road safety and further reduce the number of casualties on Cambridgeshire’s roads. It will contribute towards our LTP objective to make travel safer and help to improve quality of life.

## Conclusion

This chapter has demonstrated our commitment to improving road safety and reducing casualties in Cambridgeshire.

# 9 Quality of life and Environment in Cambridgeshire

## Introduction

It is the aim of both our transport and land use strategies to maintain and enhance quality of life and quality of the environment against a background of rapid growth. Our objectives and transport strategy have been developed with this in mind.

Chapter 6 has considered what the LTP can do to improve air quality in our towns and villages. This chapter considers other quality of life issues, and details what this LTP can do to improve them. Issues discussed later in the chapter include the following.

- Noise
- Landscape and biodiversity
- Public spaces and better streetscape
- Sustainable and prosperous communities
- Community safety, personal security and crime
- Healthy communities

The final section of this chapter details our work on Rights of Way and the development of our Rights of Way Improvement Plan (ROWIP).

## Environmental strategies

As part of our approach to tackling environmental issues, Cambridgeshire County Council produces an Environment Strategy and Action Plan (ESAP)[11], which forms a key part of our commitment to sustainable development and a better quality of life for present and future generations. The strategy was agreed in 2002 and an action plan is updated annually.

Its objectives, indicators, targets and actions cover:

- tackling climate change
- using resources efficiently
- ensuring healthy and safe air, land and water
- conserving our natural and built heritage.

Objective: To reduce greenhouse gas emissions resulting from transport (particularly road transport), through both internal work and transport planning.

*Tackling climate change in Cambridgeshire*

The policies in ESAP complement the environmental strategies and policies of the district councils.

## Climate change

The release of greenhouse gases from human activities is causing significant changes to the world's climate. Past emissions already mean that some change is inevitable, and although it is a global problem the impacts will be felt locally. In East Anglia we expect to see hotter drier summers and warmer wetter winters, with more frequent extreme weather events, and an increased risk of flooding as sea level rises. Therefore we need to take action now and do everything we can to prevent the most severe predictions from being realised. Our action needs a two-pronged approach.

Firstly, we need to address the causes of climate change. This means taking action now to reduce emissions. Road transport is the source of more than 20% of the UK's total greenhouse gas emissions and is also the fastest growing sector in terms of these emissions, as shown in Figure 3.2. The LTP can make a valuable contribution to tackling climate change by incorporating actions to reduce greenhouse gas emissions, such as:

- creating awareness of the need to consider using non-car modes of transport
- improving opportunities for safe and efficient journeys by foot, bicycle or public transport and alternatives to road freight transport
- using fuel-efficient, low-emission vehicles for County Council business and promoting the use of alternatively powered vehicles by other organisations
- reducing the need to travel through information technology solutions
- the application of traffic reduction policies

However, because some climate change will inevitably occur, we need to start adapting to the anticipated conditions. This means, for example, ensuring buildings and infrastructure are resilient by modifying our programmes and construction/maintenance practices. The following are examples of this:

- The design standards to which road surfaces and substrates are built will need to be increased to make them stand up better to hotter summer temperatures, and to the hot dry summer/warm wet winter cycles.

[11] Web reference - www.cambridgeshire.gov.uk/environment/policy/esap/

- Winter maintenance funding requirement may be reduced due to warmer winters
- Bridges may need to be made more resilient to increased river flow rates in preparation for wetter winters and more extreme weather events.
- Additional drainage capacity along highways and footpaths, increased embankment and bridge pier maintenance, and increased gully emptying may need to be 'programmed in'

Further details can be found at www.cambridgeshire.gov.uk/environment/climate

## Local actions

An inventory of greenhouse gas emissions in Cambridgeshire for the period 1998–99 was produced in 2002. This suggested that almost 6 million tonnes of carbon dioxide equivalent gases were released in Cambridgeshire per year (over 8 million tonnes if emissions related to the electricity used within the county were included). About 1.35 million tonnes was due to road transport, and we believe this figure has since increased. Work is underway to quantify current levels of transport emissions.

**LTP Indicator AQ1 (LTP2)**
**Target:** $CO_2$ equivalent emissions from road transport in Cambridgeshire to be no more than **1.747M tonnes** in **2010**.

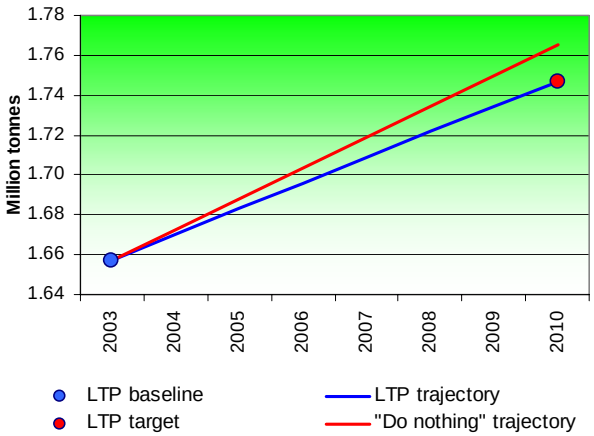
***Evidence that the target is both ambitious and realistic***
The target for $CO_2$ emission is based on a modelling assessment of the vehicle fleets emissions, based on mileage on various classes of road across the county. The trajectory shows an upward trend. This is due to two main factors.

- The Growth Agenda
- Traffic on the Trunk Road / Motorway network.

These factors and the assumptions that have been made are discussed in further in **Appendix 11**.

The target equates to a 5.4% increase in emissions. The "do nothing" trajectory shows a 6.5% increase in emissions. The difference is due to changes in modal share in Cambridge and the Market Towns as a result of the LTP programme. See **Appendix 11** for more detail**.**

**Figure 9.1 Indicator AQ1 (LTP1)**




***Key actions of local government needed to achieve the target***
Introduce programme of measures to reduce the need to travel by car, and provide alternatives to the private car. Integration of land use and transport policy driven by Structure Plan, Local Plans / LDFs and RSS to achieve sustainable development in transport terms.

***Key actions of local partners needed to achieve target***
See above

***Principal risks and how they will be managed***
Growth in traffic on the trunk road network is beyond the control of the county council, particularly in the context of the national importance of the A1 / A1(M), A11, M11 and A14. We will continue to work with the Highways Agency on the development of initiatives to reduce $CO_2$ emissions, however, this alone will not be sufficient to reduce the level of $CO_2$ emissions.

Cambridgeshire County Council signed the Nottingham Declaration on Climate Change in 2002, and produced a Climate Change Strategy in April 2005. This sets a strict $CO_2$ reduction target and highlights activities aimed at meeting this.

'*Tackling climate change in Cambridgeshire*'[12], the County Council's Climate Change Strategy, was produced in consultation with the District and City Councils. It includes examples of good practice by local businesses and organisations working to reduce their contributions to climate change and to adapt to its inevitable impacts.

The strategy identifies five key areas for the County Council's work on climate change: energy, transport, resource efficiency, adaptation and awareness.

As part of the strategy's development, we undertook a Member-led review into the effects of climate change on the Council's services. This identified potential actions that could be taken, and is helping ensure a high level of awareness throughout the council. Copies of all these documents are available on our website.

## The role of the LTP in reducing emissions

Transport's significant contribution to climate change means the LTP has a key role to play through reducing emissions related to our own corporate travel, and also through bringing about wider improvements through our

[12] Cambridgeshire's climate change strategy can be viewed at http://www.cambridgeshire.gov.uk/environment/climate/strategy.htm

transport planning role. The LTP also contributes to wider objectives of encouraging climate change adaptation and increasing awareness, both inside and outside the County Council.

The Growth Agenda in Cambridgeshire (see Chapter 1) has significant implications for transport and transport emissions. With 57,400 new dwellings to be built by 2016, we need to accommodate very significant increases in travel demand. To date we have been successful in Cambridge in limiting or halting the growth in car travel, but on a countywide basis, as nationally, the overall trend in vehicular traffic and emissions has been upwards.

In many areas, our programme will seek to further limit growth in traffic. However, our LTP programme and other identified funds for transport are not at a scale that will enable us to reverse current trends in transport emissions, particularly when the Growth Agenda is factored in. Measures that will help minimise increases in transport emissions are shown in Figure 9.2.

**Figure 9.2 LTP programme and transport emissions**

| Strategy area | Programme area | Impact on transport emissions |
|---|---|---|
| Transport corridors | • Bus, cycle and pedestrian schemes (including Guided Bus) | • Growth in travel accommodated in part by new non-car capacity<br>• Overall growth in vehicular traffic and emissions on transport corridors due to increases in through traffic on strategic routes and the Growth Agenda |
| Urban areas and their hinterlands | • Further development of the Cambridge Core Traffic Scheme<br>• Additional capacity for non-cars modes into Cambridge (including Guided Bus)<br>• Market town transport programmes | • Schemes will provide capacity for increase in non-car trip making<br>• Growth in vehicular traffic and emissions due to the additional travel demand of the Growth Agenda[13] |
| Rural areas | • Accessibility action plans<br>• Community transport<br>• Pedestrian/cycle routes | • Some trip making may be made by non-car modes<br>• Car will remain dominant form of transport in rural areas limiting net impact on emissions |
| All | • Smarter Travel Management | • Reduction in modal share of vehicular traffic<br>• Growth in vehicular traffic overall due to Growth Agenda |

Given known available funding it will be challenging to limit the increase of transport emissions of greenhouse gases in Cambridgeshire, given the additional transport demand of the Growth Agenda. The LTTS may identify further funding or measures that may help us in delivering lower transport emissions. Within existing resources, we do not consider that it will be possible to reduce transport emissions in Cambridgeshire without strong policy guidance, leadership and action from Government. The increase we are likely to see is due to two main factors.

- **The Growth Agenda**
  As a County Council, we will lobby the Government to put pressure on other local authorities that do not have such competing demands to strive towards more challenging targets. This will hopefully ensure the national carbon dioxide emissions target can be achieved.
- **The Trunk Road and Motorway Network**
  The majority of transport emissions in the county are generated on the trunk roads, over which we have no control. Furthermore, traffic levels are predicted to increase on these roads, again because of policy decision that are within the remit of national / regional Government, rather than at the county level.

Despite these demands it is possible that emissions per head of population will decrease in the period of this LTP; this is something that our further modelling to set a challenging target for indicator AQ1 (LTP2) will clarify.

## Quality of life issues

Objective: Maintain or reduce ambient noise levels.

*Environment Strategy and Action Plan*

The LTP can also help to improve the quality of other aspects of life. This next section considers how the LTP can improve the following issues:

### Noise

Noise can have a major impact on quality of life and can affect health. It can be the cause of stress, while prolonged exposure to high noise levels can result in permanent hearing loss. Transport noise is known to be of concern to Cambridgeshire residents (see Chapter 2). Mitigating the impact of noise for people who live close to transport corridors and interchanges is always an important consideration and will contribute towards the achievement of our objective to protect and enhance the built and natural environment. The planning of routes for major highway schemes takes into consideration the impact of noise from traffic and, where necessary, any mitigating measures such as noise bunds and/or barriers that can be provided. Noise attenuation measures are also important during highway scheme construction and maintenance.

[13] See Chapter 7, indicators LTP6 (CON6a) and CON6b relating to peak hour traffic and traffic crossing the Cambridge radial cordon.

The European Noise Directive (2002/49/EC) is aimed at controlling noise. It lays down a common approach for avoiding, preventing or reducing the harmful effects of exposure to environmental noise based on using noise maps to provide information to the public and for implementing action plans. Strategic noise maps will enable assessment of noise exposure in an area due to different noise sources and overall predictions to be made for such an area. The first round of mapping and action planning applies to the largest agglomerations (over 250,000 population), the busiest major roads and railways and all major airports. The second round (2012 –13) will apply to agglomerations with over 100,000 populations e.g. Cambridge, major roads, railways and airports.

## Landscape and biodiversity

Transport schemes can have major impacts on the landscape through either the effects on the landscape character or the loss of landscape features, such as ponds and hedgerows. Policy P7/4 of the Cambridgeshire and Peterborough Structure Plan (2003) states that development must relate sensitively to the local environment and contribute to the sense of place, identity and diversity of the distinct landscape area. This can be achieved through planting tree belts, hedgerows and creating ponds or other features that are in keeping.

Cambridgeshire has a Local Biodiversity Habitat Action Plan for Roadside Verges. Roadside verges probably constitute one of the largest areas of unimproved grassland in the county (see Cambridgeshire Landscape Guidelines, 1991) and are of importance as a refuge for many rare species such as the stoat, weasel, kestrel, barn owl, bur medick, Spanish catchfly, bluebell and greater broomrape. Many additional species use the hedgerows adjoining the roadside verges for example common shrew, song thrush and sparrowhawk. As well as providing habitat, roadside verges form important wildlife corridors and have landscape and amenity value. Some show the characteristic flora of calcareous grassland. Lowland calcareous grassland is a priority habitat nationally and has a national Habitat Action Plan.

Certain roadside verges have been awarded protection under Policy P7/1 of the Structure Plan. Over 90 roadside verges are afforded this protection and are known as Protected Road Verges (PRVs) and have their own management regime which includes the following rules:

- avoid cutting the verge during the summer until wildflowers have set seed, although if a verge is on a bend or at a junction then safety takes priority over cutting
- no storing of bituminous or granular material on the verge
- no storage of salt unless in a container
- no driving or parking on or over the verge
- no use or storage of chemicals on the verge
- grass cuttings are to be removed.

Environment Strategy And Plan Objectives

- Protect and enhance Cambridgeshire's landscape, diversity and quality
- Protect and enhance Cambridgeshire's biodiversity

About half of the Protected Roadside Verges are also County Wildlife Sites, which are afforded a higher level of protection under Policy P7/1 of the Cambridgeshire and Peterborough Structure Plan. Opportunities exist within new road schemes for creating new road verges which, with the careful selection of appropriate species, could become valuable for wildlife as well as extending and enhancing existing protected road verges.

We are also mindful of the visual impact of the road network and associated street furniture, and will seek to provide only such signing and other street furniture that is necessary for the amenity and safety of the travelling public. Reducing unnecessary as part of the implementation of the integrated transport and maintenance programmes will also reduce the maintenance cost of the transport asset as a whole.

All major transport infrastructure proposals, such as the Cambridgeshire Guided Busway scheme are subjected to an environmental appraisal to assess the potential impacts it may have on the landscape and biodiversity, and to balance these impacts against the benefits of the scheme.

## Public spaces and better streetscape

The design and use of street spaces can make these environments more pleasant and contribute to the economic prosperity of an area, it will also help to meet our LTP objective to protect and enhance the built and natural environment. Our LTP addresses this issue and includes the following:

- Cambridge Quayside / Magdalene Bridge area. As part of the Cambridge Core Traffic Scheme, safer access on foot – for workers and visitors – and for buses, taxis and cyclists, and reduced congestion and pollution has been provided in this area. By carrying out a street audit and the removal of unnecessary signs, the Core Traffic Scheme has helped to reduce the impact of clutter on the streetscene. It should be noted that not all infrastructure within the highway is the responsibility of the Highway Authority, although it may impact on the streetscene. Therefore it is important to work with such infrastructure owners to achieve consistently high standards across the entire streetscene.
- Polices to reduce air pollution, such as the proposed Low Emission Zone in Cambridge will improve air quality in the area. This will not only enhance the environment of the area, but will also benefit people's health and help to encourage sustainable modes of transport.

- Highway land makes up a major proportion of public space. Well maintained carriageways and footways will improve the quality of public spaces and will also help to promote walking and cycling, improve safety and enhance accessibility. In addition, high quality public transport infrastructure (i.e. bus stops and shelters) are also important in improving perceptions of the ease, security and comfort of travelling by public transport. The programme of improvements to bus stops in Cambridge will include raised kerbs and standardised information, while new bus shelters are being implemented in the market towns. Combined, these measures will improve the quality of the infrastructure and increase bus use.

## Sustainable and prosperous communities

As demonstrated by the Government's Sustainable Communities Plan, transport has an important role to play in helping to create vibrant and prosperous communities. Measures contained within this LTP can help to achieve this. For example, the engineering, enforcement and education measures contained within the road safety programme will help to reduce the number of accidents and casualties in Cambridgeshire, while measures set out in Chapter 7 to reduce congestion will help to improve the street environment. The ongoing promotion of cycling, walking and public transport will help to support the delivery of sustainable communities by encouraging existing and new residents to travel by these modes.

The ongoing prosperity of Cambridgeshire is crucially dependent on the provision of new homes and infrastructure, which will provide the foundations for the well being of the area. Cambridgeshire Horizons was set up to meet this challenge. This organisation is responsible for driving the delivery of 47,500 new homes and £2.2bn of support infrastructure in the Cambridge Sub-Region by 2016. Using the Cambridgeshire Structure Plan as a blueprint for the creation of sustainable communities, it brings together local councils and development agencies to ensure a coherent response to the diverse challenges this presents. The County Council is working closely with Cambridgeshire Horizons to jointly identify measures that will help to facilitate sustainable and prosperous communities.

One of the aims of the Long-Term Transport Strategy (LTTS) is to secure additional funds in order to provide the infrastructure required to cope with the additional travel demand generated by the development planned for the county. Cambridgeshire Horizons has been closely involved in the development of the strategy. The measures set out in the LTTS will help to deliver sustainable communities and maintain the prosperity of the county.

## Community safety, personal security and crime

Crime and the fear of crime on the transport system can have a major effect on people's willingness to travel and their ability to access the jobs and key services that they need. Personal security is central to enabling people to feel safe when walking, cycling and using public transport and is a key requirement if we are to achieve our LTP objective to create a transport system that is accessible to all. Reduced levels of crime and improved personal security will also help to promote public transport, walking, cycling and other forms of sustainable transport.

To help address this, five Community Safety Partnerships (Crime and Disorder Reduction Partnerships) have been set up in Cambridgeshire, representing each of the five districts. Each partnerships is comprised of the following organisations:

- Police
- District Council
- Cambridgeshire County Council
- Primary Care Trust
- Fire service
- Youth offending service
- Other private and voluntary agencies

Working together these responsible authorities are required to carry out an audit to identify crime and disorder and misuse of drugs problems in their area and develop strategies that deal effectively with them. Partner organisations are required to work in co-operation with local education and probation authorities and invite co-operation of a range of local private, voluntary, other public and community groups including the community itself. In addition, measures contained within our road safety programme, such as improved street lighting and pedestrian crossings will help to reduce crime and the fear of crime on the transport system, contributing to the LTP objective to make travel safer.

## Healthy communities

Transport can also have an effect on people's health. Several elements of this LTP which can have a significant impact on the health of a community. More detail is given in the relevant chapter, however they are summarised as:

- Improving access to healthcare services, sport facilities and supermarkets through our accessibility strategy.
- Increasing the amount of trips that are undertaken on bike or foot through our pedestrian strategy, cycling strategy, Safer Routes to School Programme and Rights of Way Improvement Plan.
- Encouraging a shift from the private car in order to improve air quality, as poor air quality is known to contribute to respiratory diseases and heart conditions. This will be achieved through measures identified in Air Quality Management Area Action Plans, e.g. in Cambridge, through the proposed Low Emission Zone, and the market town strategies.

# Public Rights of Way (PROW)

## Background

There are three types of Rights of Way:

- footpaths
- bridleways,
- byways open to all traffic.

The county has more than 3,000 kilometres of Public Rights of Way, which are an essential part of the transport network and can provide recreational and commuter routes between villages in the rural parts of the county, as well as links to more urban service centres. At present, some 60% of this network is available for public use.[14]

The footpaths, bridleways and byways are mainly used for recreation, but demand for more functional use is growing. There are very few open spaces in the form of downland, heath or forest in the county, making access by paths even more important to local people. Particularly important are the metalled paths and footways within communities, connecting housing to community services, schools and shops. A condition survey of county footways has shown that rural footways are in better condition than urban footways.

Given the projected increase in the Cambridgeshire population and increased development, a proactive programme will be required to develop a Rights of Way and countryside access network which meets 21st century requirements.

The new vision of improved countryside access in Cambridgeshire builds on the Rights of Way network to bring benefits addressing transport, tourism, the rural economy, social integration, health and the environment.

## The Shared Priorities for Transport

Public Rights of Way form an essential element of the LTP strategy. High quality routes throughout the county will contribute to the achievement of the shared priorities, as follows.

- **Accessibility:** by providing paths within communities, connecting housing to community services, schools and shops.
- **Air quality:** the increased usage of the Rights of Way network will contribute to the reduction of air pollutants and $CO_2$ emissions.
- **Road safety:** by providing alternative routes away from the main roads, and incorporating all types of users in new junction and road design.
- **Congestion:** by providing paths for non-motorised use along commuter routes between villages and urban centres.

Rights of Way also contribute to the delivery of LTP objectives, especially in relation to promoting accessibility, the environment and integration. The promotion of Rights of Way also has a key role to play in the cycling and pedestrian strategies.

> Policy 117: The Council will seek to retain and enhance the pedestrian route network, including Public Rights of Way and roadside footways. When considering proposals for development that will have an effect on the pedestrian route network, the council will seek to retain or enhance the safety, convenience and attractiveness of the network. Major new housing and employment developments should include safe, attractive and convenient pedestrian routes both internally and to link with the pedestrian route network in the area.
>
> *East Cambridgeshire Local Plan*

## Rights of Way Improvement Plan

The Cambridgeshire Rights of Way Improvement Plan (ROWIP) has been developed to meet the requirements of the Countryside and Rights of Way Act 2000 (CROW). The deadline for completion of ROWIP is November 2007. However, the County Council decided to complete the ROWIP to coincide with this Local Transport Plan. The ROWIP represents a significant opportunity to improve countryside access in the county through partnership working, reflecting the changes that development will bring to the county. The main objective of the Cambridgeshire Rights of Way Improvement Plan is:

- to manage, improve and promote a Public Rights of Way network as an integral part of a wider transport system, which meets the needs of the whole community for safe, sustainable local transport, which improves public health, enhances biodiversity, increases recreational opportunities and contributes to the rural economy.

The ROWIP contains an assessment of the extent to which local Rights of Way meet the present and likely future needs of the public, the opportunities provided by local Rights of Way for exercise and other forms of open-air recreation and enjoyment, and the accessibility of local Rights of Way to blind or partially sighted persons and others with mobility problems. It goes on to evaluate countryside access in the county and includes a statement of action that sets out what the authority proposes to do to manage local Rights of Way, and secure improvements to the network.

[14] As estimated on local methodology.

Widespread consultation on the ROWIP was undertaken with landowners, rural businesses, neighbouring authorities and Rights of Way users. Questionnaires, focus groups, one-to-one interviews and a corporate survey were used to gain views on current and future countryside access provision.

The full ROWIP is contained in **Appendix 13**.

## Programme

We have identified the following key elements, in line with the Shared Priorities for Transport and LTP objectives. These form part of the Rights of Way Improvement Plan.

### Safety

We will provide safer crossing where Rights of Ways (ROWs) cross major or poorly sighted high-speed roads, providing better sightlines, signage, islands and pedestrians/Pegasus crossings and bridges and improve road verge safety linking ROWs.

**LTP Indicator ACC3 (BV178)**
**Target:** More than **67%** of footpaths and other rights of way to be easy to use by members of the public by **2010/11**.

***Evidence target is ambitious and realistic***
Previous surveys have shown that there are two types of problem out of a potential seven that consistently cause the Authority to under perform in this area, due largely to the arable nature of the county. With targeted and added resources gained from reward money and the ROWIP we are confident that this target is achievable by 2010/11. It should, however, be borne in mind that the 5% annual sample size is not statistically significant so it is difficult in any case to say whether we are on, above, or below target.

***Key actions of local government needed to achieve target***
The principal problems suffered are:

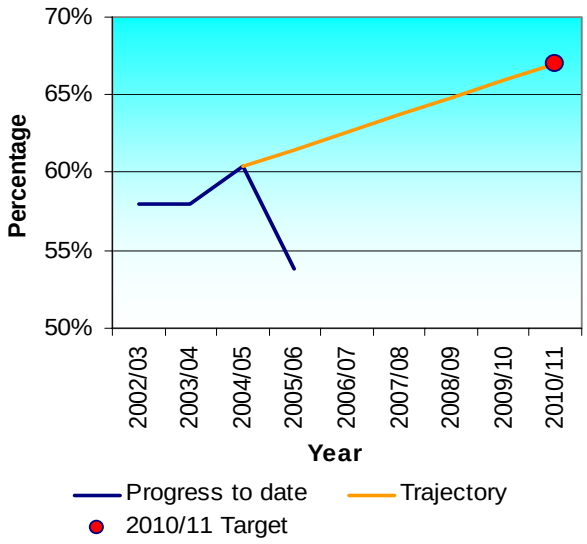
1) Ploughing and cropping over paths; and
2) Obstructions along paths.

To redress these areas we need to

- target farmers more effectively and enforce reinstatement where redress does not occur;
- target obstructions-offenders, liasing with parish councils, councillors and landowners to ensure an effective, joined-up approach to the problem.

To achieve these we primarily need additional staffing resources.

**Figure 9.3 Indicator ACC3 (BV178)**




***Key actions of local partners needed to achieve target***
Likely partners include the parish and district councils, parish path partnerships (P3 Scheme), local councillors, landowners and, with the new cross-compliance policy under the Common Agricultural Policy reform, DEFRA. We need partners to understand the problems suffered, and to liaise with each other to assist in tackling the problems both at ground and political levels. For example, parishes in the P3 Scheme can assist by chasing farmers to reinstate cross-field paths, and councillors can help change landowner attitudes.

***Principal risks and how they will be managed***
Principal risk is not obtaining sufficient staff resources to enable us to spend the time required in resolving the problems on the ground. If we do not obtain the resources we will have to explore other ways of achieving the same goal; in the meantime we would be obliged to continue largely as at present, including managing the public's expectations as we have done hitherto.

It should, however, be borne in mind that the 5% annual sample size is not statistically significant so it is difficult in any case to say whether we are on, above, or below target.

We will also improve safety on rural metalled paths. Many internal village ROWs were surfaced in the post-war years for a population of mainly agricultural labourers. The condition of these ribbons of tarmac has since deteriorated. We will seek to improve surfaces and lighting for these well-used and vital internal village links.

We will improve safety where road verges link ROWs. Where roads are busy, verges provide a safer alternative. Roadside obstructions at all levels can cause hazard to pedestrians, cyclists and equestrians. Zoning and improving crucial verges will significantly improve network connectivity.

Specific route improvements aim to restore journey safety to levels prevailing before pressures of increased motor traffic made established routes unsafe.

We will conduct a programme of strategic route improvements to address issues with surfaces, bridges and barriers that currently limit the users' ability to make safe progress along Rights of Way.

### Integration

We will address the issue of linkage and dead-end routes by exploring route creation opportunities, maximising access for the widest range of users. There are many historical anomalies in the network, a problem exacerbated by contemporary population growth and growth in user demand.

We will also seek to reduce motor traffic by encouraging non-motorised access to rural attractions. In partnership with organisations such as the National Trust and the Royal Society for the Protection of Birds, improvements to access on foot or by cycle between public transport modes and attractions such as Wimpole Hall, the Ouse Washes and Wicken Fen (on the Cambridge to Ely cycle route) can help to meet specific sustainability targets.

### Promotion of sustainable transport

We will improve signposting and way marking for inclusive ROW access and provide better information on integrated access through a single source. The network is currently too complex and information is fragmented, making it difficult to use. Better signage and information will allow access by a wider range of people from diverse backgrounds. We will also undertake the following.

- Increase the contribution of non-motorised tourism to market town economies through the market town strategies. Establishing walking and cycling networks in and around medium-sized communities such as Ely will help to spread the economic benefit of tourism without increasing traffic levels. Networks need to integrate ROWs, footways and access to attractions.
- Increase the use of the ROW network for exercise. Users concentrating on fitness need help in finding routes. This activity will improve the accessibility of routes in appropriate places – for instance, by sports centres and medical centres.
- Look for opportunities to upgrade the ROW network to provide walking and cycling links between major development areas and nearby villages around the new town of Northstowe.

### Accessibility

We will improve and maintain Public Rights of Way to an acceptable standard, so that they are safe for all users. As people get older they find stiles and steps more difficult to negotiate. Gates and ramps, together with improved surfaces where appropriate offer significant advantage. We will provide information on integrated access. There is a wide range of access routes and access land available, but information is fragmented, making it difficult to use. In line with the County Council modernisation agenda, we will aim to provide more of this information.

## Horses

Horse riding and horse-drawn carriage driving are healthy and sustainable alternative forms of transport. Leisure journeys, of which horse riding is a significant subset, are in themselves an important component of the overall highway usage pattern.

It is estimated that there are more than 10,000 horses in Cambridgeshire and some 12,000 horse riders. The industry arising from this is important to Cambridgeshire's economy.

Legally, horse riders can utilise three different rights of way: bridleways, byways open to all traffic and road. In Cambridgeshire, bridleways comprise 13.2% and byways 9.9% of the Rights of Way network.

## Policies

We have integrated measures to support horse riding into the specific strategies relating to walking and safety. We will:

- improve and maintain Public Rights of Way to an acceptable standard, so that they are safe for all users
- integrate cycling measures with improvements to bridleways in rural areas wherever possible, so as to provide access for horse riders
- ensure that new safety measures incorporate the needs of horse riders
- take horse riding into account when planning new transport infrastructure
- ensure that horse riders are taken into consideration when putting in new road designs within the county, introducing appropriate signage for horses showing safe routes in complex road layouts, including (where possible) design of appropriate traffic calming
- identify and mark verges which contribute to the safety of riders and keep them clear of overhanging signage, vegetation, drains and ditches intended to deter unauthorised access.

# Strategic Environmental Assessment

European Directive 2001/42/EC on Strategic Environmental Assessment defines plans and programmes that require environmental assessment. Cambridgeshire County Council has taken the view that given the Long-Term Transport Strategy (LTTS) sets the context for LTP2 and subsequent LTPs, it would also be appropriate to subject the LTTS to SEA. The SEA Statement and Environmental Report of the Cambridgeshire LTP 2006-11 can be found in **Appendix 14.**

Figure 9.4 shows how the stages of the SEA process fed in the development of this Local Transport Plan.

**Figure 9.4 Input of SEA into LTP2 development process**

| SEA development stage | | Input into LTP2 development | |
|---|---|---|---|
| **Identification of environmental problems and issues** | ⇨ | **Fed into early stages of LTP2 development** | *Environmental issues fed into initial stages of LTP2 development process* |
| **Development of SEA objectives and indicators** | ⇔ | **Development of the LTP2 objectives** | *Included a compatibility appraisal between the SEA and LTP2 objectives* |
| **Assessment of alternatives** | ⇨ | **Development of the Provisional LTP2** | *Assessment of the strategic alternatives informed the development of the preferred strategy for the LTP2* |
| **Scoping Report and consultation on the SR** | ⇨ | **Development of the Provisional LTP2** | *Consultation responses on SR fed into LTP2 development process* |
| **Assessment of significant effects of Provisional LTP2** | ⇨ | **Development of the final LTP2** | *Significant effects of Provisional LTP outlined to Cambridgeshire County Council (CCC)* |
| **Environmental Report and consultation responses on the ER** | ⇨ | **Development of the final LTP2** | *ER included set of recommendations and mitigation measures. These were incorporated into the final LTP by CCC*<br>*Consultation responses on ER also fed to CCC* |
| **Monitoring** | ⇔ | **LTP2 APR Monitoring** | *SEA monitoring will form part of the LTP2 APR monitoring process* |

The SEA scoping report identified important issues that needed to be considered in developing and implementing the LTP programme, as shown in Figure 9.5. Figure 9.5 also refers to sections / pages of the LTP where the issues are discussed in more detail, over and above the discussion in the Scoping Report.

**Figure 9.5 Key Issues / Problems identified in the SEA Scoping Report**

| Key Issues / Problems | LTP page reference |
|---|---|
| Traffic noise disturbance to people and the environment. | Chapter 9, page 113 |
| Traffic growth exacerbating congestion and leading to pollution 'hot spots'. Impacts on human health, plant and animal life, materials and structure. | Chapter 8, Chapter 9 |
| Increasing transport emissions contributing to climate change. | Chapter 9, page 111 |
| Climatic impacts on transport infrastructure, congestion, traveller stress, roadside vegetation maintenance, subsidence, accident rates, flood risk. | Chapter 9, page 111, Chapter 10 |
| Visual intrusion / loss of amenity from transport development and transport infrastructure. | Chapter 9, pages 114 |
| Destruction and fragmentation of natural habitats, and less protection of protected / non-protected species. | Chapter 9, page 114 |
| Increased run off and reduced drainage/infiltration, and pollution of water resources. | Chapter 9 |
| Highway safety issues. | Chapter 7 |
| Road condition and road safety in rural areas. | Chapter 7, Chapter 10 |
| Areas of relative economic decline: problems of poor access to services, and difficulties in getting to places of employment. | Chapter 5 |

The SEA considered the four scenarios for dealing with transport and the growth agenda proposed in the LTTS (see Chapter 4, page 44). This assessment highlighted that the most positive alternative was Scenario 4, with

potential benefits resulting from a mixture of demand management measures and intensive walking and cycling and public transport schemes. Scenario 3 was the least positive in relation to the SEA Objectives due to its added emphasis on highway improvements. To address the whole spectrum of SEA Objectives the SEA highlights the need for a mixture of measures. Whilst a plan which is most beneficial is likely to have a greater emphasis on demand management, public transport and walking and cycling, highway improvements are however required in certain places. In particular, the assessment highlighted a need for highway improvements to be focussed on addressing parts of the road network which have the highest accident rates.

Figure 9.6 summarises the recommendations of the Environmental Report, and how these recommendations have been taken into account in the Final LTP.

**Figure 9.6 Recommendations to Improve the Environmental Performance of the LTP2**

| SEA Objective | | Recommendations | How the recommendations have been taken into account in the final LTP2 |
|---|---|---|---|
| 1 | To reduce greenhouse gas emissions. | Incorporation of specific approaches in the LTP2 to increase energy efficiency and increase the use of renewable energy in transport proposals such as new transport interchanges, infrastructure improvements and bus shelters. | In areas where providing power from the national grid would be costly or disruptive, and to trial the technology with a view to assessing its viability as a mainstream solution to power supply, the County Council has implemented solar powered lighting, illuminated signs, cat's-eyes and bus stop lighting. This approach will continue, and should increase, particularly as technology becomes more reliable. |
| 2 | To reduce noise pollution. | The LTP2 should outline approaches to mitigation to reduce noise pollution. The plan should also describe the Council's approach to EC Directive 2002/49/EC ('the Noise Directive') and how this will be incorporated into informing LTP2 decisions. The impact of extra car parking provision on noise pollution at the Chesterton Interchange should be reviewed. | Approximately £11.6M is allocated from the capital maintenance budget to the provision of noise-reducing road surfaces. This expenditure will be targeted at locations that suffer current problems from traffic noise. It is worthy of note that in the lifetime of the LTP1, less money than originally planned was spent on noise reducing surfacing, as the assessment of noise levels as part of the maintenance programme did not indicate the level of noise problems that had originally been assumed.<br>The environmental impacts of Chesterton, including on noise pollution, will be dealt with in detail as part of the business case submission to Government.<br>Noise barriers will be provided where necessary as part of major scheme construction. Speed management measures will, where possible, seek to minimise the potential for increased noise due to acceleration and braking between measures |
| 3 | To improve local air quality. | Although the major issues related to this objective have been addressed in the plan, monitoring of the air quality situation in vulnerable areas is required. In addition, the impact of extra car parking provision on air quality at the Chesterton Interchange should be reviewed.<br>Promotion of vehicles with low particulate emissions. | The Air Quality Action Plan for Cambridge has identified the need for additional traffic data, which is being collected. Future action plans for the other AQMAs in Cambridgeshire may identify further areas where additional traffic or air quality data is required. The environmental impacts of Chesterton, including on Air Quality, will be dealt with in detail as part of the business case submission to Government.<br>Through the Smarter Travel Management programme, opportunities will be taken to promote the use of sustainable transport and of vehicles with low particulate and $NO_2$ emissions. |
| 4 | To protect and enhance landscape character. | The LTP2 should outline an approach as to how effects at a smaller scale, such as inappropriate signing, maintenance and inappropriate use of materials can damage local rural and urban character, and how these factors will be considered.<br>The impact of the Ely Southern Bypass on landscape character should also be addressed. | Chapter 9 of the LTP includes detail on how the transport programme s impact on landscape, and biodiversity, and on urban streetscape can be best managed. Chapter 10 of the LTP provides detail of Cambridgeshire's Maintenance Strategy and emerging Transport Asset Management Plan. One of the key themes of the Maintenance Strategy is 'Rethinking Construction', with the aim of achieving an environmentally friendly road maintenance strategy.<br>The impact of the Ely Southern Bypass on all environmental concerns was addressed in the original Annex E submission to Government, and will be included in the revised Business Case submission in the period of this LTP. |

| SEA Objective | | Recommendations | How the recommendations have been taken into account in the final LTP2 |
|---|---|---|---|
| 5 | To protect and enhance local distinctiveness and the heritage resource. | The LTP2 should outline how transport schemes will consider listed buildings and monuments, conservation areas, archaeological protected sites, and registered parks and gardens and their potential negative effects on these. Consideration should be given as to how transport schemes will regard local distinctiveness and implement sympathetic design- especially in relation to the setting of cultural heritage. The impact of the A605/B6761 junction on Elton Hall should be addressed. | The impact of transport schemes on the built environment and listed buildings is considered at the scheme design stage, and will typically form a key part in public consultation. Schemes will seek to achieve the most effective balance between cost effectiveness and sympathetic design.<br>The A605 / B6761 major safety scheme is no longer in the programme for the period to 2011. If the scheme is progressed, the impact on Elton Hall will be considered in detail as part of the design and consultation process. |
| 6 | To support the enjoyment of the countryside and the public realm | Although the major issues related to this objective have been addressed in the plan, the impact of the Ely Southern Bypass on this objective should be examined. | The impact of the Ely Southern Bypass on all environmental concerns was addressed in the original Annex E submission to Government, and will be addressed in the revised Business Case submission (including a revised Environmental Impact Assessment, taking account of the issues raised by the Strategic Environmental Assessment of the LTP) in the period of this LTP. |
| 7 | To protect and enhance biodiversity and geodiversity, including characteristic habitats and species throughout their range. | The LTP2 should indicate how schemes will take biodiversity into account. The plan should also acknowledge the wider effect of the LTP2 on geological assets. The impacts of the Major Schemes on biodiversity assets should be addressed.<br>The LTP2 should recognise the importance of green networks and protect and enhance 'green corridors' where appropriate. | Chapter 9 of the LTP indicates many of the ways in which biodiversity is considered in the LTP, and how the County Council will seek to mitigate against the impact of the transport programme on biodiversity. Road construction and maintenance requires significant amounts of aggregate, and one of the Council's asset management objectives is to recycle all materials where appropriate, minimising the need for new materials. Additionally the Council is undertaking trials of various recycled products in road construction, including waste glass and shredded used tyres.<br>The impact of major schemes on all environmental concerns will be addressed as part of the Business Case submission and environmental Impact Assessment submission to Government. |
| 8 | To protect and enhance water quality | The LTP2 should clarify how the effects on surface and ground water quality arising from the LTP2 will be addressed. This should include:<br>How the collection, initial treatment and disposal of run-off from roads can affect water bodies and watercourses.<br>Promotion of sustainable urban drainage systems and the use of silt traps and filters as these can markedly reduce the levels of polluted run-off. | Sustainable drainage systems will be implemented where they form the most effective way of dealing with the treatment and disposal of run off. |
| 9 | To protect and enhance the function of watercourses and water bodies, including floodplains. | The LTP2 should outline how the plan will consider flood risk and the wider function of watercourses, water bodies, and rivers and groundwater systems including floodplains and catchments.<br>The LTP2 should demonstrate how transport proposals will consider different flood zone risks and requirements from strategic to local levels to ensure that these inform decision making (accompanied, where necessary, by appropriate sustainable drainage and flood management solutions). Consideration should also be made of how the various Strategic Flood Risk Assessments that are/ have taken place in Cambridgeshire will inform LTP2 decisions. These recommendations are especially relevant to the Bridge Strengthening programme and the Ely Southern Bypass. | The County Council needs Environment Agency approval for any transport schemes that will impact upon the floodplain and watercourses, and will consult the Environment Agency in the early stages of scheme feasibility and design. Scheme design will seek to minimise any detrimental impact, or, ideally, lead to no adverse impact on the function of watercourses, water bodies, rivers and groundwater systems.<br>The impact of the Ely Southern Bypass on all environmental concerns was addressed in the original Annex E submission to Government, and will be addressed in the revised Business Case submission (including a revised Environmental Impact Assessment, taking account of the issues raised by the Strategic Environmental Assessment of the LTP) in the period of this LTP. |

| SEA Objective | | Recommendations | How the recommendations have been taken into account in the final LTP2 |
|---|---|---|---|
| 10 | To encourage travel choices that improve overall levels of health. | Major issues related to this objective have been addressed in the plan. | |
| 11 | To improve road safety. | Major issues related to this objective have been addressed in the plan. | |
| 12 | To improve accessibility to jobs, facilities and services. | Major issues related to this objective have been addressed in the plan. | |

In addition to the recommendations outlined above, the Environmental Report set out mitigation measures for each measure and scheme included in the Provisional LTP2. From this a set of generic mitigation measures were proposed as outlined below. These measures will be incorporated in the relevant processes and procedures when taking forward the LTP programme and the schemes contained therein.

- Project level Environmental Impact Assessments, where applicable (such as for the LTP2 Major Safety Schemes and the LTTS Major Infrastructure Schemes);
- Integration of the needs of biodiversity into final scheme design at the earliest possible stage;
- Protection of biodiversity within designated and important habitats and the wider environment, including the maintenance and enhancement of green networks;
- Compensation and creation of additional habitats where negative effects are unavoidable, including beyond the immediate transport corridor to help address strategic biodiversity priorities;
- The use of Sustainable Urban Drainage Systems (SUDS) and storm water treatment to minimise adverse effects on downstream environments and surface and groundwater quality;
- Consideration of groundwater protection zones during the planning and construction phase;
- Measures to ensure sympathetic design and compatibility of infrastructure with local townscape character and the setting of cultural heritage, notably during construction;
- Measures to minimise the negative effect on landscape character could include the use of visual screening, planting, and the integration of schemes within the surrounding landscape;
- Measures to ensure new schemes with additional land take are located on previously developed land, where this is practicable- whilst recognising the potential of brownfield sites for biodiversity;
- Consideration of the impact of signing on local distinctiveness, landscape and the setting of cultural heritage;
- The promotion of the use of alternative fuels and low-emission vehicles in order to reduce greenhouse gas emissions and promote air quality improvements;
- Mitigation measures during construction to minimise the adverse effect on biodiversity, noise, local air quality, climate change, soil, water resources and water quality;
- Measures to reduce noise pollution in sensitive areas, including low noise surfacing (subject to further road safety investigations), the reduction of vehicle speeds, and noise attenuation barriers;
- Measures to ensure the design of schemes are compatible with the needs of walkers, cyclists and other vulnerable road users;
- The avoidance of watercourse culverting where possible; and
- Complementary demand management measures for road schemes

Additionally, these mitigation measures have been linked to the SEA monitoring programme for the LTP.

As noted above, the SEA Statement and Environmental Report of the Cambridgeshire LTP 2006-11 can be found in **Appendix 14.**

## Conclusion

This chapter has shown how our strategy will contribute to improving the quality of life in Cambridgeshire. In addition, it has outlined how improvements to quality of life will help to achieve LTP objectives and the Shared Priorities for Transport. The next chapter sets out our approach to maintaining the county's transport network.

# 10 Managing the transport network

This chapter looks at our approach to road and bridge maintenance and transport asset management. The condition of the highway network is important for the well being of the entire county. Good maintenance encourages inward investment and a sense of community ownership. The whole county uses the service on a daily basis for access to all other services.

Following the success of our programme to improve the condition of principal roads in our first LTP, we are now refocusing our strategy on non-principal roads. When we have met our targets in relation to non-principal roads, we will then concentrate on unclassified roads.

## Transport Asset Management

Transport asset management forms an important part of our programme, accounting for around half of our expenditure on transport. It encompasses road, bridge, footway, cycleway, Rights of Way, street lighting road sign and traffic signal maintenance.

### The Shared Priorities for Transport

Although road maintenance is not part of the Shared Priorities for Transport, it should not be forgotten that it does, in fact, make a significant contribution towards these priorities, as shown in the following examples.

- **Air quality** The improved condition of footways and cycleways will encourage more people to use them, resulting in less car use and reduced emissions.
- **Accessibility** In some rural areas, the car remains the main form of transport; therefore the quality of the road surface is important, particularly for those for whom travel would otherwise be uncomfortable or even impossible. In urban areas, the condition of footways is vital to improving accessibility.
- **Congestion** Targeted and timely intervention will make best use of the funding available, and will enable preventative maintenance options to be used to minimise congestion rather than more expensive and disruptive treatments. The provision of well-maintained footways and cycleways can encourage more trips to be made on cycle or on foot, thereby reducing congestion.
- **Safety** Improving the quality of road surfaces helps to reduce accidents. A number of safety schemes have involved single line maintenance.

Effective asset management also contributes towards improved quality of life, as shown in the following examples.

- **Quality of public spaces/streetscapes** Better quality road, cycleway and footway surfaces can enhance the quality of public spaces and streetscapes; in turn, this can help to promote more sustainable transport modes. High-quality maintenance is particularly important in historic urban and village environments. Better maintenance is important in delivering the improvements in relation to congestion, pollution accessibility, and safety that increased public transport patronage brings. The reduction of clutter on the streetscene is also an important factor in improving the quality of public spaces.
- **Healthy communities** Improved surfacing of footways and cycleways will encourage more people to walk and cycle, hence helping to improve levels of fitness.
- **Noise** Maintenance of low-noise highway surfaces in urban areas can reduce transport-related noise.

### Asset management objectives

Asset management objectives are given in terms of efficiency, safety, environment and sustainability as follows.

***Efficiency:***

- To maintain the network in the best possible condition within budget limitations, thus providing best value for money.
- To make the best and most sustainable use of existing infrastructure
- To concentrate on long-term planning

> The maintenance of rural roads should be a vitally important element of the LTP.
> *LTP consultation response*

***Safety***

- To reduce road casualties
- To minimise fear of crime after dark and improve lighting to reduce road casualties and increase modal shift, while minimising light pollution.

***Environment***

- To encourage modal shift towards walking and cycling in order to improve air quality and reduce transport-related noise

***Sustainability***

- To improve the quality of facilities available for pedestrians, cyclists, bus and rail passengers, and the disabled
- To recycle all materials where appropriate

## LTP TAMP Report – Cambridgeshire's Transport Asset Management Plan

The purpose of Cambridgeshire's Transport Asset Management Plan TAMP is to set out a strategic approach to the allocation of the transport resources to manage, operate, preserve and enhance the transport infrastructure to meet the current and future needs of all transport stakeholders. The TAMP enables the rehabilitation plans for the transport asset to be planned over a long time frame and thus better use of scarce resources.

The highway network is vital to the economic well being of the local community, but despite its importance the level of funding is not at a level to improve its condition. Developing a longer-term plan will enable the opportunity for more reasoned arguments for funding decisions and highlight where there may be serious shortfalls.

The Council already has a draft Highways Asset Management Plan and is now working on the broader Transport Asset Management Plan. There is a cross team working group developing the TAMP with support from WS Atkins, our Engineering Services Consultant. The TAMP will be completed by April 2007 which coincides with the first financial year of the new Highways Service Contract when the TAMP will be used by the service provider in partnership with the client to deliver an asset management based fully integrated service.

The new Highway Services Contract in will be very much based upon partnership, collaborative working and shared resources/targets. Customer focus and improved service delivery being the core of the contract. The TAMP will be at the centre driving the partnership and the service delivery. The working group includes members across the Directorate of Highways and Access, including from Passenger Transport, Highway Maintenance, Street Lighting, Bridges and Structures, and Public Rights of Way.

Cambridgeshire is developing its TAMP in line with the CSS guidance set out within the Framework for Asset Management. It is also developing its transport asset valuation model and that will also follow CSS guidance. The plan will incorporate the council's vision and set down specific measurable goals that will demonstrate our performance in achieving these objectives.

The present level of transport service delivered is largely based upon the level of funding provided. Within the TAMP, the desire is to ask the customers their expectations of service required and to work to deliver that level of service.

Cambridgeshire has carried out service surveys in the past to ascertain the views of the highway user on its services and whether they reflect the aspirations of the community and to measure whether the Council is meeting the highway users expectations and the statutory obligations through the delivery of the transport services. Further surveys will be used to inform this process.

Traditionally Cambridgeshire has not used highway inventory and condition data to manage its network, therefore the amount of inventory data has been small. This approach has changed and a 5 year programme of highway data collection was started in 2002. The purpose is to provide the backbone to the development of the TAMP and the valuation of the transport asset.

Further work is programmed to collect and record inventory and condition data for the wider transport asset to inform Members and stakeholders of the real level of funding to maintain the transport asset. The development of the TAMP and valuation model are considered as fundamental cornerstones in the development of the transport service, and will enable value for money of local road maintenance to be considered more effectively against other local transport spending.

Through the delivery of these objectives, we will support the economy and promote accessibility, while the delivery of the programme will enhance integration and help to deliver the Shared Priorities for Transport.

In order to achieve these objectives, we will:

- adopt an efficient and consistent approach to the collection, processing and recording of highway inventory, highway condition and status information – for the purpose of both local and national needs assessment, management and performance monitoring
- adopt and regularly review a risk management regime for the determination of local technical and operational standards
- develop and adopt regular reviews of policies for highway maintenance, consistent with the wider principles of integrated transport, sustainability and Best Value
- harmonise highway maintenance practice and standards where this is consistent with users' expectations, while retaining reasonable diversity consistent with local choice.

Key to these processes is the adoption of a Transport Asset Management Plan, which is being developed through the effective use of Best Value Performance Indicators. At the core of this is the highway inventory – encompassing route-condition surveys for each of the inventory items – which will enable longer-term programmes of preventative maintenance and replacement to be formulated. The data will then be used to determine the correct levels of budget required for each inventory item each year, ensuring that the network asset is kept in the best condition that the money available allows.

### Delivering best value in highway maintenance – the Code of Practice for Maintenance Management

We are working towards fully implementing the Code of Practice for Maintenance Management because we consider the highway network to be a key and highly visible community asset, supporting the national and local economy and contributing to the character and environment of the area it serves.

Our progress to date includes:

- working towards developing a Transport Asset Management Plan by 2007
- creating a Cross Service Group which includes highways, bridges, Rights of Way, public transport and street lighting
- developing our sign maintenance programme
- increasing the frequency of safety inspections to fully comply with the Code; this gives benefits in terms of improving the condition of our roads and footways, reducing insurance claims and increasing the satisfaction of the public
- undertaking tree-condition surveys to identify the backlog of tree maintenance
- undertaking highway-drainage condition surveys to identify the backlog of drainage maintenance
- improving the quality of grass, hedge and tree maintenance adjacent to cycleways.

## Highways maintenance and network management best value review

In April 2004, the Audit Commission published their report *Best Value Review of Highways Maintenance and Network Management in Cambridgeshire*. The County Council was assessed as providing a good, two star service that has excellent prospects of improvement. Particular comments included the following:

- Clear aims are supported by detailed and challenging targets that are supported by the public.
- The Council is delivering an ambitious programme of integrated transport measures to improve access to jobs and services. The condition of the transport infrastructure is being improved and made safer by cost-effective means. Success can be demonstrated by achievement of a number of targets, including improved and increased public transport use, improved condition of principal roads and reductions in road casualties.
- The Council compares well against other councils in terms of principal road condition and value for money. Progress with delivering the Cambridgeshire Local Transport Plan programme and targets is above average.

Excellent prospects for improvement were noted as follows:

- The improvement plan clearly sets out what is to be done, who will lead it and what the associated outcomes and targets are. The plan identifies significant annual savings, in excess of £1 million per annum by 2008/09. The plan also proposes major investment in street lighting via a Private Finance Initiative (PFI) scheme.
- Most other improvements are smaller in scale and do not require large-scale investment; many of them are already being implemented and demonstrating progress. In addition to the improvement plan there are other drivers, such as our LPSA targets and Local Transport Plan progress monitoring, that will deliver improvements.
- Performance management is a strength. The service demonstrates self-awareness and accountability, which encourages continuous improvement. This is to be seen alongside its clear ability to set and deliver priorities that are relevant to local people.

Recommendations were made as follows.

- Carry out the improvements recommended in the Council's Best Value Review.
- Consider how the current benefits of Highways Agency arrangements, particularly co-ordination with streetcare services and opportunities for district councils to supplement highways budgets, will be incorporated into the new arrangements.
- Integrate the management of bus infrastructure (signs, shelters, timetables, etc.) with other transport asset management systems.

In addition to the Best Value Review, we have carried out a number of surveys regarding transport asset management. These have shown that public satisfaction with highways services is improving. In particular, for instance, there is:

- 57% satisfaction with communication on highway issues
- 44% satisfaction with the upkeep of footways
- 49% satisfaction with the upkeep of roads.

## Maintenance Strategy

The transport network in Cambridgeshire consists of:

- 280 km trunk and motorway (responsibility of the Highways Agency)
- 173 km county primary routes
- 299 km main distributor roads
- 320 km secondary distributor roads
- 849 km local roads
- 2,699 km local access roads
- 1,798 road bridges and 2,200 Right of Way bridges
- over 160 km of cycle routes
- over 3,000 km of Rights of Way
- 54,500 street lights and 5,700 illuminated signs and bollards
- 117 traffic signal junctions and 188 signal-controlled pedestrian/cycle crossings

The transport network additionally consists of other important infrastructure, such as road signs, footpaths, road marking and highway verges and drainage. Maintenance also includes the maintenance of verges and upkeep of trees within the highway. Our programme is based on the following principles.

### Along corridors

We will:

- as an initial priority in the early years of LTP2, increase structural expenditure to improve the condition of non-principal roads
- enhance the condition of footways and cycleways
- improve the quality of the road signage as a contribution to road safety.

### In urban and rural areas

We will:

- in the later years of LTP2, focus maintenance expenditure on unclassified roads
- improve the condition of footways/cycleways, particularly in town/village centres and urban hinterlands
- improve the quality of the road signage as a contribution to road safety.

## The integration of asset management with our overall transport strategy

Maintenance of the road, footpath and cycleway network is integral to our overall transport strategy. For example, the enhanced condition of carriageways, footways and cycleways helps to improve road safety and will also encourage more people to make their journeys by foot or cycle, thus promoting sustainable transport and making travel safer.

Key themes include:

- maintaining and optimising the use of road, public transport, cycling and walking facilities in partnership with other stakeholders because the condition of the roads and footways are important, for local pride and investment opportunities as well as for safety; and addressing the needs of the disabled and people with reduced mobility
- maintaining and improving travel choice and accessibility, which requires that the transport network is maintained in an optimum state because investment in infrastructure and operating effective transport networks underpins economic vitality and growth
- 'Rethinking Construction', together with the on-going trials of various recycled products – including the use of waste glass and shredded used tyres – and sustainable drainage, as they form an important part of an environmentally friendly road maintenance strategy
- use of low-noise surfacing at appropriate locations.

Taken together, the road maintenance strategy will focus investment on delivering a high-quality and effective transport network that seeks to integrate travel modes. This will be achieved through co-ordinating improvements to the road network with other improvements planned, through corridor developments, and by working with other stakeholders and agencies such as the Highways Agency.

However, it is not always possible to fully integrate road maintenance with other improvements, such as bus priorities, as maintenance schemes are affected by circumstances changing in response to road condition. Therefore the programme will reflect this, and will require an element of flexibility to maximise the benefits of delivering joint schemes such as bus priorities with maintenance.

## How we will achieve this

The Transport Asset Management Plan will be used to quantify the amount of highway asset; its condition; and the funding needed to deliver on the Key Performance Indicators agreed in the LTP. Long-term programmes for rehabilitation for the highway asset will be developed and matched against available funding. This approach will allow us to inform Members and Government of our funding needs based upon quality inventory and condition data. Our progress in the development of our Transport Asset Management Plan is set out earlier in the chapter.

## Intelligent Transport Strategy

We are in the process of developing an Intelligent Transport Strategy. The aim of the strategy is to co-ordinate the operational management of our various intelligent transport systems with the distribution of the information provided to highway users, in order to provide value for money. This will be achieved through the development of the Highways Management Centre (discussed in detail in Chapter 7). The initial work will focus on co-ordinating:

- traffic signals (including the upgrading of UTC)
- variable message information signs
- the Real time bus information system
- car park management signs
- rising bollard systems
- traffic management CCTV cameras.

Common database technology will be procured to facilitate the efficient receipt and dissemination of system information to maximise the benefits to highway users.

**LTP Indicator AM1a (BV223)**
**Target:** Less than **5%** of principal roads with a notional residual life of less than 0 years by **2010/11**.

**LTP Indicator AM1b (BV224a)**
**Target:** Baseline of 13% set in **2005/06**. Target to be set in **2006/07**.

**LTP Indicator AM1c (BV224b)**
**Target:** Less than **15%** of unclassified roads with a notional residual life of less than 0 years by **2010/11**

**Figure 10.1 Indicator AM1a (BV223)**

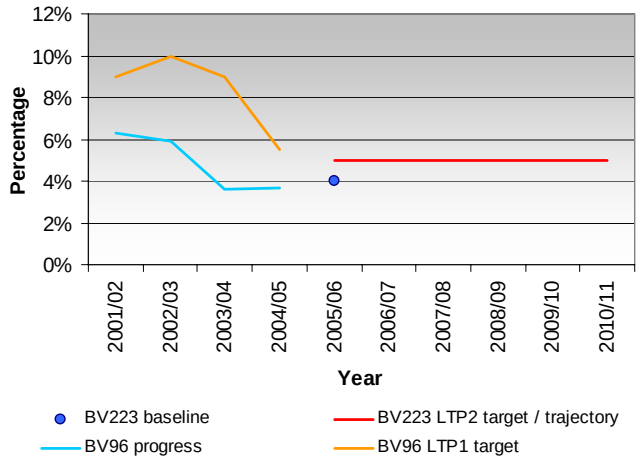
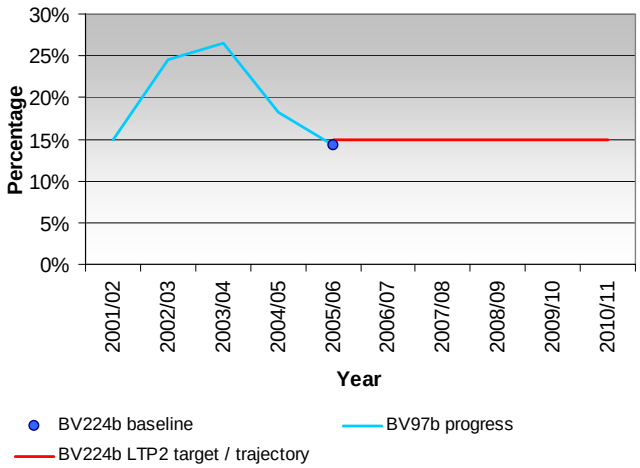



**Figure 10.2 Indicator AM1c (BV224b)**




***Evidence that the targets are ambitious and realistic***
BV223, which has replaced indicator BV96, has a revised methodology for measuring road condition. Similarly, indicator BV224a has superseded BV97a. BV224b has replaced BV97b for measuring unclassified road condition, but retains the same methodology.

We have set new baselines and target for BV223 and BV224b, and will set a target for BV223a in 2006/07, when we have data to assess the impact of our programme on the new measure non-principal road condition.

Our target for BV223 is to maintain the condition of the principal road network at current levels, while we focus maintenance expenditure on improving the condition of the non-principal road network.

While we are not in a position at this time to set a target for BV224a, we are confident that we will be able to make good progress improving the condition of the non-principal road network in the early years of LTP2.

If our progress allows, we will seek to divert expenditure into the unclassified road network in the later years of the programme. The trajectories for all three indicators will therefore be further developed as LTP2 develops.

***Key actions of local government needed to achieve targets***
To meet these targets, we need to ensure that maintenance is carried out in a timely manner.

***Key actions of local partners needed to achieve targets***
Early contractor involvement in scheme design is needed for them to make a positive contribution to the effective programming of, and delivery of the schemes.

***Principal risks and how they will be managed***
The UK Climate Impacts Programme (UKCIP) is predicting drier summers and wetter winters by 2020, which will mean that the dry summer of 2003 could become the norm. This would cause increased amounts of damage to road surfaces in Cambridgeshire. Adaptation strategies (see page 111) to minimise the risk of future damage will have a cost implication, although this may be less than remedial works at a later date.

## Programme for highway and footway maintenance

The maintenance programme has been designed to allow for the increase in length of road and increase in asset/inventory brought about by infrastructure increases arising from development. In addition, the programme makes clear linkages between capital and revenue funding and the management of the transport network. This is achieved by integrating maintenance with the implementation of new infrastructure wherever possible. This ensures that best value can be achieved from all expenditure made by the County Council and hence that maximum benefits can be achieved.

We aim to maintain our traffic signal and street-lighting stock at as high a standard as possible within available resources but have not at the current time, identified resources to allow us to improve the condition of the stock in each case.

## Footways

Footways alongside principal roads shall be considered to be either urban or rural in nature and will be treated in accordance with the appropriate standard. On defined lengths and in urban areas where the footways generate significant pedestrian movements, footway inspections shall be walked. Dangerous defects shall be identified and will be repaired within 24 hours.

**LTP Indicator AM2 (BV187)**
**Target:** less than **19.2%** of the footway network with a notional residual life of less than 0 years by **2010/11**

**LTP Indicator AM2 LPSA (BV187)**
**Target:** less than **19.85%** of the footway network with a notional residual life of less than 0 years by **2006/07**

***Evidence that the target is ambitious and realistic***
We currently have little available trend data to base a trajectory and target for this indicator, and future years data will validate the target and trajectory or allow us to make changes to them to ensure that they remain challenging and realistic.

***Key actions of local government needed to achieve target***
Work with District / City Council colleagues to target footway maintenance on areas where particular problems occur.

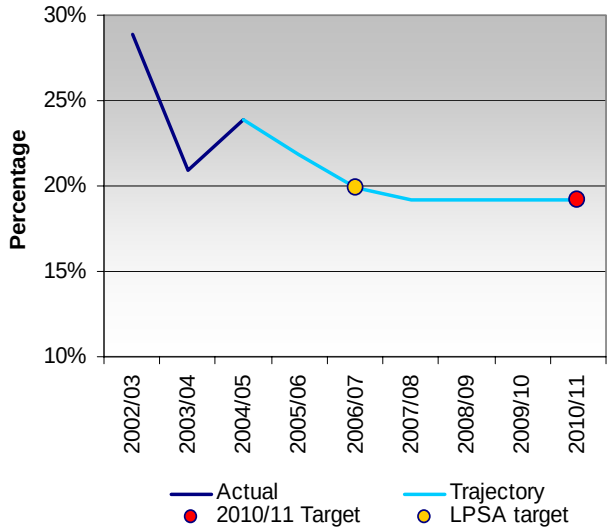
***Key actions of local partners needed to achieve target***
As above.

***Principal risks and how they will be managed***
Uncertainty about the impact of the proposed level of intervention may result in adjustments to the target and trajectory.

Concentration on high use routes could increase rate of deterioration of less used footways. The programme will need to be flexible enough to deal with this and maintain less well used routes in a safe condition,

Climate change adaptation. See Indicator AM1.

**Figure 10.3 Indicator AM2 (BV187)**




## De-trunking

The A10 was de-trunked in 2001 with the County Council taking over responsibility for the maintenance of an additional 30 bridges and 58 kilometres of highway. The A10 forms a vital part of the local road network and is managed as part of this. It is one of the main transport corridors around which the LTP strategy has been developed.

Sections of the A428 west of Cambridge will be de-trunked on completion of the upgrade of the route. The County Council will seek to maximise available funding from Government to cover any implications of this de-trunking on our overall progress towards maintenance targets. Similarly, sections of the A14 west of Fenstanton towards the A1 may be de-trunked following the completion of the A14 upgrade. Should this proceed, we will work closely with the Highways Agency to ensure an efficient transfer of responsibility for the road.

## Winter maintenance

We treat 42% of the county's network, including most bus routes, when frost is forecast. As part of our Winter Maintenance Best Value Review we have completed the process of converting our gritting fleet to use wetted salt. This helps to ensure that the salt is spread evenly across the road and has the maximum impact in keeping the surface free of ice. This is producing a saving in funds that has allowed us to salt some cycleways and footways in urban areas and to reduce the amount of salt used.

## Street lighting

The quality of street lighting can have a significant impact on the Shared Priorities for Transport and quality of life issues. For example, it can help to reduce accidents and improve cycleways and footpaths. Enhanced street lighting also forms a crucial part of the Council's desire to deal with the fear of crime.

The street lighting stock consists of approximately:

- 54,500 street lights
- 3,000 small illuminated signs
- 800 large illuminated signs, and
- 1,900 illuminated 'keep left' bollards.

The stock profile is very much skewed towards being close to or past design life (25 years for most types of column), as shown in Figure 10.4.

**Figure 10.4 Street lighting stock profile**

| Age of columns | Numbers | Percentage |
|---|---|---|
| 0–20 | 19,671 | 37 |
| 21–24 | 10,812 | 20 |
| 25–30 | 13,515 | 25 |
| 31–40 | 8,360 | 16 |
| Over 40 | 1,179 | 2 |

Street lighting condition surveys have been undertaken on all the columns over 8 metres in height, and that has been used to influence what replacements we have been able to make. Further work on this is currently underway following the publication of TL28 last year.

### Programme

Cambridgeshire County Council was placed on the reserve list for the possibility of street lighting replacement funding through a PFI, following an Expression of Interest. The Council would welcome the opportunity to move to Outline Business Case and develop the PFI project.

Whatever the merits of any PFI case, there is still the street-lighting backlog, which reflects the need for additional capital funding through the LTP.

## Traffic signals

The efficient maintenance and continuing day-to-day operation of traffic signals and their associated systems has a significant effect on the Shared Priorities for Transport and quality of life issues. Their continued and consistent day-to-day operation is essential in keeping accidents down; controlling congestion; implementing bus priorities; and maintaining accessibility particularly, for the more vulnerable road users such as cyclists and pedestrians (including people with disabilities).

Our traffic signal stock consists of approximately:

- 117 junctions (many of which have pedestrian and/or cycle crossings within them)
- 188 crossings (pedestrian and/or cycle)
- associated bus priority, urban traffic control and remote monitoring hardware and software.

The current national specification states that the controller equipment 'shall have a minimum design life of 15 years, with suitable maintenance'. As of July 2005, we have 24 installations over 20 years old.

## Road signs

Road signs play a vital role in the safety and efficiency of the road network. Well-planned and maintained road signs benefit all road users, whatever mode they are using. As part of our highway maintenance and road safety programmes, we will audit the quality of road signs on an on-going basis as routes are upgraded or maintained. Where appropriate we will remove any unnecessary road signs, and so help to minimise the impact of clutter on the streetscene while ensuring the safety of all road users. We will review signing to ensure that it is appropriate for the importance of the route or destination and of the highest possible quality. Where necessary, we will clean or replace signs. A review of sign condition for principal roads has been undertaken and we hope to develop bids for further funding in the future.

## Bridge maintenance and strengthening strategy

Cambridgeshire has one of the largest bridge stocks in the country. We maintain 1,798 structures, consisting of:

- 242 highway structures with a span of 1.5 metres or more on principal roads
- 771 on B and C class roads
- 785 on unclassified roads.

There are also 2,200 Rights of Way bridges.

The European Union Directive allowing 40 tonne vehicles on all European roads came into force in the UK in 1999. In order to allow such vehicles to use UK roads, every Bridge Authority in the country was required to carry out a programme to assess and strengthen bridges to ensure that they were capable of taking the extra weight from these heavier vehicles. Our bridge strengthening programme is therefore based upon completing this work within the context of our LTP strategy.

### Aims

The aim of our bridge strengthening programme is to meet European requirements while:

- providing a network of roads capable of carrying public transport to destinations throughout the county without significant diversion
- providing a network of roads capable of carrying 40-tonne lorries to all areas of commercial and industrial development without significant diversion
- keeping the number of bridges with weight limits and width restrictions on them to a minimum.

All new and strengthened bridges will be widened, where appropriate, to accommodate pedestrians and cyclists as part of the wider objectives of developing integrated and sustainable transport.

The upkeep of all bridges and structures within the county plays an essential role in maintaining and improving the economic vitality and viability of Cambridgeshire. In particular, it is essential to ensure the integrity of bridges, not only the major transport corridor bridges and those that connect industrial and commercial centres to the strategic highway network, but also the smaller rural bridges that are the lifeline of the county's agricultural farmland. We attach a high priority to the maintenance of bridges to obviate the need for expensive repairs and increased costs at a later date.

## Background

We have substantially completed the Bridge Assessment Programme (see Figure 10.5) and have strengthened 35 out of a total of 186 bridges that require strengthening.

Six bridges on primary/principal roads require strengthening which will be our priority, and we are working closely with other bridge owners to deliver this. We are also prioritising those bridges on the rest of the network that are in urgent need of strengthening work. They will be prioritised together with those that require structural maintenance.

## Integration with transport objectives and the overall strategy

Our prioritisation of strengthening and maintenance schemes has been drawn up using criteria designed to help meet LTP objectives as follows.

***Safety***

- Risk to the public
- Consequences of failure
- Likely rate of deterioration
- Traffic levels
- Structural deficiencies

***Integration and sustainability***

- Maintaining bridges on bus corridors without restrictions
- Providing footways and cycleways wherever necessary over bridges
- Providing added value to cycling, Safer Routes to Schools and other strategies and programmes

***Economy and efficiency***

- Importance of highway/road classification
- Percentage of HCV using bridges
- Disruption to traffic from interim or permanent measures
- Length of diversion route
- Cost of service diversion

***Environment***

- Listed or historic building status
- Sites of Special Scientific Interest and Conservation Areas
- Sustainability

***Accessibility***

- Disruption to transport from weight limits or width restrictions
- Extent to which bridge caters for pedestrians and cyclists, and along routes to schools

Bridge maintenance work also runs in conjunction with other transport programmes. For example, the Safer Routes to School programme and initiatives to promote cycling are incorporated into the bridge maintenance programme where there is a need.

## Process

Bridges will be maintained in a condition that eliminates the possibility of collapse. The substandard bridges identified through the Bridge Assessment Programme will be managed by regular monitoring or imposing weight/width restrictions, if necessary, until they can be strengthened. These restrictions will only be imposed if the risk of failure is high and only in extreme cases will a bridge be closed and diversions imposed. Where a structure gives cause for concern, a risk assessment will be carried out and mitigating measures put into place to reduce the risk to an acceptable level.

**Figure 10.5 Bridge assessment and strengthening programme**

| Bridge type | Bridges in assessment programme | Bridges passed | Bridges strengthened | Bridges yet to be strengthened | Bridges structural maintenance |
|---|---|---|---|---|---|
| Bridges and retaining walls carrying primary/principal roads | 79 | 63 | 10 | 6 | 10 |
| Bridges and retaining walls carrying B roads | 110 | 86 | 13 | 11 | 15 |
| Bridges and retaining walls carrying C roads | 169 | 94 | 6 | 69 | 30 |
| Bridges and retaining walls carrying unclassified roads | 136 | 65 | 6 | 65 | 35 |
| **Total** | **494** | **308** | **35** | **151** | **90** |

Where bridges are 'listed', they will be maintained structurally and aesthetically in the best condition possible within available resources. Within the county, there are 28 listed highway structures, of which eight are Scheduled Ancient Monuments.

Special consideration is given to ensure that subways and footbridges are free of offensive graffiti by improving the lighting levels and by undertaking partnership arrangements with the local community for the provision of suitable artwork and decoration. High priority is also given to promoting personal security and the provision of access for the disabled.

In addition, work is carried out in partnership with stakeholders – such as other authorities, parish councils, and schools – when working on cross-boundary schemes and community-based special projects.

In implementing our programme, close consultation always takes place with the public and local businesses to ensure that disruption is kept to a minimum and, where possible, temporary works and restrictions are adjusted to suit local needs. This is especially important in rural areas where the agricultural industry is dominant and restrictions must be programmed to avoid critical times of the year such as harvest time.

**Figure 10.6 Bridge maintenance / strengthening schemes costing over £250,000**

| Scheme | Scheme cost (£000s) | | |
|---|---|---|---|
| | 2006/07 | 2007/08 | 2008/09 |
| Stocks Bridge | 350 | | |
| White Bridge | 375 | | |
| Wells Bridge | 500 | | |
| Wistow Bridge | 375 | | |
| Carter bridge refurbishment phase 2 | 525 | | |
| Milebrook Bridge | | 400 | |
| Alconbury Weston Bridge | | 550 | |
| Freedom Bridge Retaining Wall – Phase 1 | | 1,000 | |
| Near Manor House Bridge | | | 500 |
| Brasley Bridge | | | 300 |
| Melbourn Mill Bridge | | | 250 |
| Freedom Bridge Retaining Wall – Phase 2 | | | 600 |
| Abbey Farm Culvert | | | 450 |
| Farcet Bridge | | | 600 |
| River Shingway Bridge | | | 450 |

### Programme

We aim to complete the bridge strengthening programme by 2020. The priorities will be based on road hierarchy and maintaining access for public transport, pedestrians, cyclists and access for industry and commerce.

Figure 10.6 shows the bridge maintenance / strengthening schemes estimated to cost more than £250,000 in this LTP, and a draft programme for implementation of these schemes. Additionally, a programme has been developed for the assessment and replacement of defective waterproofing membranes and bridge parapets. The following bridge project is of particular significance.

## St. Ives Flood Arches

St. Ives Flood Arches is a Grade 2 Listed 55-span viaduct carrying the C121 over the river Great Ouse flood plain.

The arches form a key link between the centre of St. Ives and the villages to the south, and are particularly important for pedestrians and cyclists, including a large number of school children. They also provide vehicular access to a hotel and residential properties. In addition, goods vehicles entering the centre of St. Ives are able to exit the town only via the main river bridge and the flood arches. The emergency services also use this route to access the A14 and surrounding villages.

The structure is in a poor state, and is approaching a critical condition. The following extensive works are required to bring it up to current standards:

- reconstruction of the parapets and spandrels
- repairs to the arch barrels
- brickwork repairs to the piers
- waterproofing and resurfacing

- strengthening of the arch barrels, piers and foundations.

While the refurbishment and strengthening work would meet the requirements of the community, the ongoing maintenance liability is likely to be high due to the amount of ancient fabric being retained – the older fabric will deteriorate quicker than the new. Therefore the condition of the Flood Arches continues to be monitored as scheme options are considered.

## Conclusion

This chapter has outlined the important contribution that asset management makes towards the achievement of the Shared Priorities for Transport and sets out the approach we will take to maintain the transport assets of the county. The following chapter looks at the major schemes that we hope to introduce over the period of this LTP.