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Cambridgeshire Local Transport Plan 2011 – 2026

Policies and Strategy

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Foreword

Executive Summary

This is Cambridgeshire's Third Local Transport Plan (also referred to as this LTP, LTP3 and the Plan) and covers the period 2011-2026.

The Plan is split in to two main parts; this first part is the Policies and Strategy, which sets out the Plan's objectives, problems and challenges and the strategy to meet the challenges.

The second part is the Implementation Plan, which is essentially a business plan detailing how we will deliver the LTP3 Strategy. It details our programmes for the delivery of transport improvements to the networks managed by the County Council, and also for the day-to-day management and maintenance of the network. It sets out the schemes and measures we expect to deliver in the first year of the Plan in detail, and sets out the processes by which future years' programmes will be developed. It also details the indicators and targets we will use to monitor our performance.

The LTP demonstrates how our policies and plans for transport will contribute towards the County Council's vision – Creating communities where people want to live and work: now and in the future. While we must have a vision for the future, we must also be realistic and recognise that we do not have the resources to deliver all of the measures we would wish to over the lifetime of the Plan. Indeed, given the current economic climate, our ability to implement schemes in the short-term may be particularly limited, although we will try and be innovative in the way that we use funds that are available. In this respect, it is important that the LTP sets the policy framework that leaves us well prepared to take advantage of opportunities that may occur to bring in additional or alternative funding and resources.

As a flexible and dynamic document, the LTP Policies and Strategy document will be updated to reflect changes in the wider local and national policy context as and when needed, and the Implementation Plan will be updated on an annual basis.

As with our previous Plans, this LTP3 has been produced in partnership with Cambridge City Council and the district councils of East Cambridgeshire, Fenland, Huntingdonshire and South Cambridgeshire. We have had a strong working relationship for many years and have been very successful in bringing together the planning and transport responsibilities of these authorities, to ensure an integrated approach to the challenges.

LTP3 seeks to address existing transport challenges as well as setting out the policies and strategies to ensure that planned large-scale development can take place in the county in a sustainable way. In addition to working with Cambridge City and the District Councils, our Policies and Strategy and Implementation Plan documents have also been informed by public and stakeholder consultation, so that these documents reflect local people's views and concerns.

This LTP has been produced during a period of significant change, particularly in terms of the regional planning framework and tough financial climate. However, the County Council is committed to its overarching vision – Creating communities where people want to live and work: now and in the future - and this is reflected in this LTP by mirroring the County Council's Strategic Objectives as the core objectives of LTP3.

Objectives and challenges

The County Council's Strategic Objectives, which form the objectives of this LTP, are:

1. Enabling people to thrive, achieve their potential and improve quality of life
2. Supporting and protecting vulnerable people
3. Managing and delivering the growth and development of sustainable communities
4. Promoting improved skills levels and economic prosperity across the county, helping people into jobs and encouraging enterprise

5. Meeting the challenges of climate change and enhancing the natural environment

In response to Government's priorities – the economy and climate change – and the views expressed locally in our public and stakeholder consultation, relatively greater importance will be placed on Objectives 3, 4 and 5 in this LTP. We recognise that for transport to contribute to the achievement of the County Council's Strategic Objectives there is a need for input from all Council departments and partnerships. The strategy will need to strike a balance between enabling economic growth and tackling climate change.

Key among the issues affecting Cambridgeshire is the large-scale growth planned across the county, with the associated pressure on the transport network and the environment, and the risks of increased congestion and carbon emissions and worsening air quality. In parallel, many rural areas of the county continue to suffer from poor access to key services and leisure facilities and the risk of social exclusion.

We have translated the issues and problems related to each of the objectives, into a set of eight challenges for transport, under which, we have set out our strategy for addressing them. The challenges and summarised strategies are:

Challenge 1: Improving the reliability of journey times by managing demand for road space and maximising the capacity and efficiency of the existing network

We will continue to investigate the potential for demand management measures using the experience we have already gained within the county where these can help to improve conditions for sustainable modes of transport and maximising the capacity of the network. Furthermore, we will support measures which encourage the transfer of more freight onto rail and continue to work with freight operators to promote the use of the most appropriate routes for road freight, particularly where that is passing through the county.

Challenge 2: Reducing the length of the commute and the need to travel by private car

Our transport strategy supports the development strategy for Cambridgeshire by aiming to reduce the need to travel and by providing sustainable travel options for new developments. We will focus on securing school, workplace and residential travel plans and support and encourage employers to adopt smarter choices measures to help reduce the need to travel. We will also support and encourage journey planning tools to improve information available for journeys by sustainable modes.

Challenge 3: Making sustainable modes of transport a viable and attractive alternative to the private car

Countywide, we will continue to push forward in making sustainable modes of transport more attractive by continuing to develop sustainable networks for walking and cycling, making it easier for people to change between modes of transport and working with bus operators to provide high quality bus services. In addition, our aim is to improve the environment and safety for pedestrians, cyclists and public transport users, in accordance with our user hierarchy and focus on raising awareness of the transport choices available, including the health and environmental benefits of cycling and walking. This will include work with local planning authorities to ensure provision for sustainable modes that form an integral part of new developments.

Challenge 4: Future-proofing our maintenance strategy and new transport infrastructure to cope with the effects of climate change

To address these issues our strategy will use a risk management approach to help determine priority areas for adapting to climate change. We have developed an adaptation action plan to set

out how we will meet our objectives. We will take account of the projected impacts of climate change at the scheme design stage, make use of emerging technologies as they become available and build new infrastructure to the latest standards for withstanding the impacts of climate change.

Challenge 5: Ensuring people – especially those at risk of social exclusion – can access the services they need within reasonable time, cost and effort wherever they live in the county

Our strategy focuses on access to key services for our communities to the nearest main service centre, e.g. large village or market town. We will consider the whole journey, including the interaction between different modes of transport and aiming to provide suitable transport provision for necessary journeys, whilst also recognising the importance of car borne access in many of our rural areas. We will continue to support the development and work of community transport schemes as well as investigating alternative forms of public transport where traditional bus services do not meet community needs. This will include work with service providers to be innovative in the way services are delivered locally recognising that it is not simply about providing a transport service but as much about where and how the service is provided based on need.

Challenge 6: Addressing the main causes of road accidents in Cambridgeshire

To continue to reduce casualties our strategy will focus on education, training and publicity to improve road user behaviour, particularly targeting young drivers and riders, users of rural roads and children. In addition, we will progress our programme of measures aimed at reducing casualties at accident cluster sites that will give the highest casualty reduction and work with the police and other agencies through the Cambridgeshire and Peterborough Road Safety Partnership.

Challenge 7: Protecting and enhancing the natural environment by minimising the environmental impact of transport

Our strategy to protect and enhance the environment will focus on working with the district councils to reduce levels of air pollution in order to meet national objectives. This will be achieved through managing and reducing vehicle emissions and encouraging increased usage of sustainable modes of transport. Additional demand management measures will also be investigated where appropriate in order to manage car use and we will investigate the use of new technologies as they become available. Environmental issues such as protecting biodiversity and impacts on the landscape will be considered at the design stage of transport projects and we will support the provision of green infrastructure. Furthermore, we will reduce carbon emissions through a programme of smarter choices measures, improvements to sustainable travel options and the management of car use.

Challenge 8: Influencing national and local decisions on land-use and transport planning that impact on routes through Cambridgeshire

We will reflect national policies in our local plans, policies and strategies and continue to lobby for rail improvements as well as improvements to the trunk road network, including the A14.

While aiming to address all the challenges we have identified, the main focus of our strategy will be on measures and initiatives that maintain and enhance the economy and also those that tackle climate change. This reflects both the outcomes from public and stakeholder consultation as well as the direction of national transport policy. The strategy recognises the tensions between enabling economic growth and tackling climate change, and will aim to balance the two objectives.

Monitoring and performance

Monitoring the effectiveness of our Policies and Strategy document and Implementation Plan is a key part of our LTP. We want to ensure that the delivery of our Plan is as effective as possible and

is providing value for money, and therefore have a robust monitoring framework of indicators and targets to check our progress towards delivering our strategy and achieving our objectives. The indicators we have chosen reflect the issues which are most important to Cambridgeshire while at the same time enabling us to compare our progress against other local authorities in the country.

Conclusion

Our LTP3 Policies and Strategy document and Implementation Plan set out how we will help to address existing transport related problems and meet the transport needs of the large-scale development planned for the county. It is important that our strategy provides the right balance between being aspirational, and outlining what we want to achieve against a backdrop, in the shorter term at least, of significantly less funding than during previous LTP periods whilst still being able to respond to the changing environment as and when needed.

As such, our LTP3 is a flexible and dynamic suite of documents which will respond to the changing environment, as and when needed. This LTP aims to provide maximum value for money through close partnership working, by closely integrating our Policies and Strategy document and Implementation Plan and by monitoring our performance against indicators relevant to local communities.

Our Vision

"Creating communities where people want to live and work: now and in the future."

1. Introduction

This is Cambridgeshire's Third Local Transport Plan (also referred to as this LTP, LTP3 and the Plan) for the period 2011 – 2026. It has been developed in partnership with our District Councils and been informed by public and stakeholder consultation. The LTP sets out the transport challenges we face and our strategy to address them over the next 15 years. In addition, it contains an Implementation Plan that sets out the programme of schemes that we will seek to deliver.

The LTP demonstrates how our policies and plans for transport will contribute towards the County Council's vision – Creating communities where people want to live and work: now and in the future. While we must have a vision for the future, we must also be realistic and recognise that we do not have the resources to deliver all of the measures we would wish to over the lifetime of the Plan. Indeed, given the current economic climate, our ability to implement schemes in the short-term may be particularly limited, although we will try and be innovative in the way that we use funds that are available. In this respect, it is important that the LTP sets the policy framework that leaves us well prepared to take advantage of opportunities that may occur to bring in additional or alternative funding and resources.

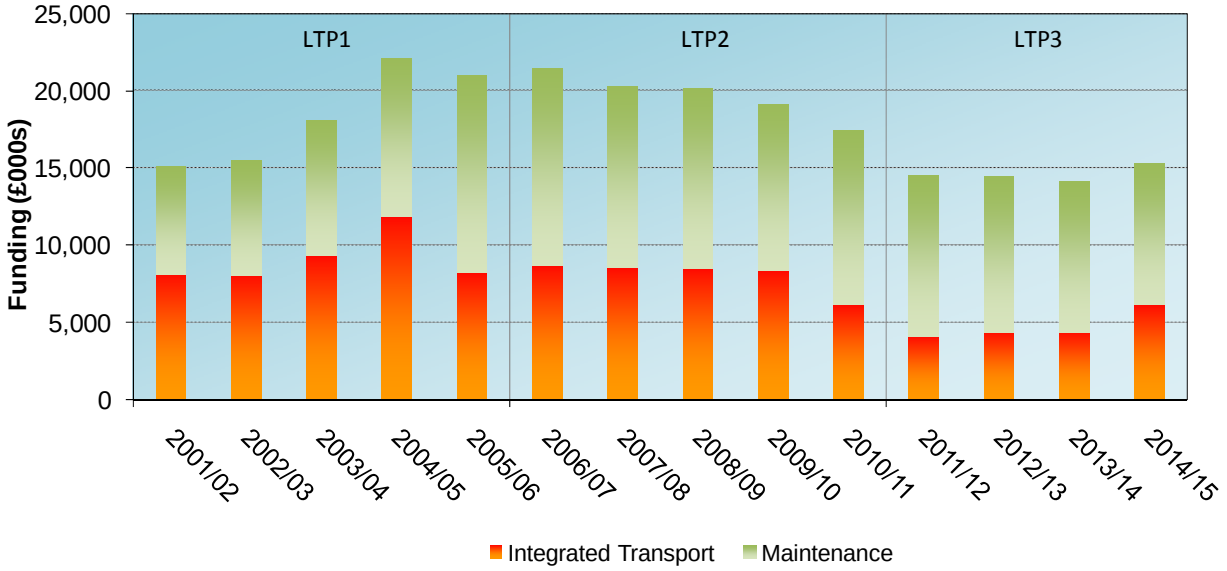
The Local Transport Plan is intended to be a live document. The Policies and Strategy document will be updated to reflect changes in the wider local and national policy context as and when needed, and the Implementation Plan will be updated on an annual basis.

The scope of the LTP

What funding is available?

The core funding associated with the LTP is capital funding from Government, in the form of the Integrated Transport Block and the Maintenance Block.

Figure 1.1. Government Funding of Cambridgeshire Local Transport Plans, 2001/02 - 2014/15



As shown in **Figure 1.1** and in **Figure 1.2** overleaf, core funding levels for at least the first four years of the Plan period (2011/12 – 2014/15) will be reduced by 25% compared to the past five

years. This will inevitably mean that less will be delivered in the next four years compared to the LTP1 and LTP2 periods.

Figure 1.2. Integrated Transport and Maintenance Block funding for Cambridgeshire 2011/12 - 2014/15

Programme Area	Average LTP2 allocations, 2006/07 – 2010/11	LTP3 funding (£000's)				
		2011/12	2012/13	2013/14	2014/15	Average cut from LTP2
Integrated Transport Block Capital funding	8,431	3,085	4,059	4,059	5,707	**-48%**
Maintenance Block Capital funding	11,658	10,712	10,695	10,801	10,104	**-9%**
Total	**20,089**	**14,517**	**14,754**	**14,860**	**15,811**	**-25%**

What can the LTP deliver?

Integrated Transport Block funding can be spent on improvements to the transport network such as traffic calming schemes, junction improvements, cycle route schemes and new pedestrian crossings. Maintenance Block funding can be spent on large maintenance schemes such as major resurfacing, and the maintenance or replacement of bridges, tunnels and other highway structures.

Neither of these capital funding blocks can be spent on initiatives that have an ongoing revenue cost, such as road safety education, supported bus services or concessionary fares, travel planning with schools and businesses or school crossing patrols. These activities are typically funded through the County Council's revenue budgets. There is less flexibility within the Council's overall revenue budgets to make significant changes to the transport network and the way it operates. Put simply, a very high proportion of revenue expenditure on transport is used to maintain the network in a useable state and to meet statutory requirements. The residual funding that remains is typically insufficient to deliver major service improvements on an ongoing basis.

It is therefore difficult for the Plan to deliver the ambitions of the Council and its partners, stakeholders and public in areas such as improved public transport services, where funding pressures make it more, rather than less difficult to maintain rural networks. Instead, the Plan is able to contribute towards measures which improve the reliability of services such as bus lanes and waiting restrictions, bus stop infrastructure, and the availability and quality of information about services.

What does £1,000,000 of investment in transport infrastructure buy?

Transport Infrastructure tends not to be cheap. The list below gives some sample scheme costs.

- ½ - ⅔ of a major roundabout, such as Bar Hill, at £1.5m to £2m.
- ⅓ - ½ of a kilometre of new road, such as the Papworth Everard bypass, at £2 - 3m per kilometre.
- ⅓ - ½ of a cycle bridge over river or railway, such as Riverside Bridge, Cambridge at £2 - 3m.
- 2½ – 3⅓ kilometres of off-road cycle route, such as Addenbrooke's Hospital to Great Shelford at £300,000 - £400,000 per kilometre.
- ⅖ – ⅔ of a kilometre of bus road, such as Walden Road, Huntingdon, at £1.5m to £2.5m per kilometre.
- 16 -19 pedestrian crossings, such as on Perne Road in Cambridge, at £55,000 - £60,000 each.

- 5 - 6½ kilometres of road resurfacing and maintenance, for example, resurfacing on the A10 at Stretham, at £150,000 - £200,000 per kilometre.
- 2 - 5 traffic signal junctions, such as at the junction of the A141 and Kings Ripton Road, Huntingdonshire, at £200,000 - £500,000 per junction.

What can the LTP aspire to achieve?

The current funding position is challenging, but the Plan needs to be clear about the transport network and services that will be needed to meet our objectives and the needs of residents, workers and travellers in Cambridgeshire, and the needs of the economy and environment.

Therefore, despite current funding constraints we have set out our strategy for the next 15 years to ensure we can use this Plan to help secure funds from other sources to help maintain and enhance the transport network in Cambridgeshire.

The issues

Cambridgeshire is a diverse county, consisting of large rural areas, market towns and the city of Cambridge. Large-scale growth is planned for much of the county, particularly in the Cambridge area, the market towns and at a new town called Northstowe, as shown in **Figure 1.3**. The joint interim statement on planning by the Cambridgeshire authorities sets out the position regarding the development strategy for Cambridgeshire. The strategy is focused on providing good quality and affordable homes closer to where people work in accessible locations with sustainable transport options readily available, in order to help grow the economy and tackle climate change. New homes and jobs are proposed within and close to Cambridge and to other main centres of employment, while avoiding dispersed development which increases unsustainable travel and makes access to services and community facilities difficult. Further sustainable locations for growth focus mainly on Cambridgeshire's market towns. This strategy is embedded in the Cambridge Local Plan and District Councils' Local Development Plan documents.

While the development strategy has been developed to reduce the need to travel, there will still be pressures on the transport network and the environment, including the risks of increased congestion, decreasing air quality, Air Quality Management Areas and increased levels of carbon emissions. At the same time, many rural areas of the county continue to suffer from problems related to social exclusion and lack of access to key services such as jobs, education and health care. Furthermore, particular groups of society such as children and young people, older people and people with disabilities face discrete transport problems including access to after school activities and further education, safety issues and access to the public transport system.

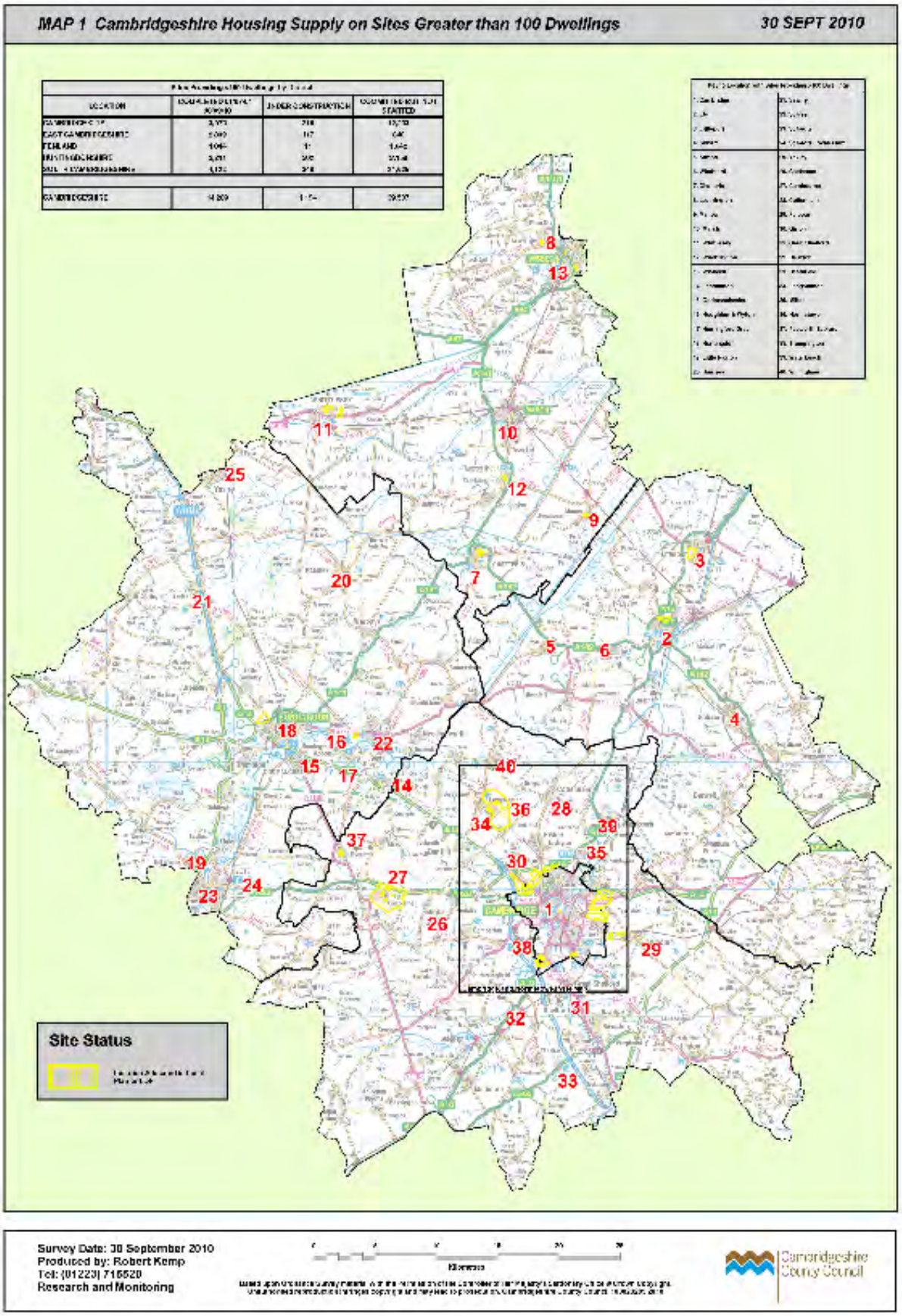
The issues facing rural areas vary considerably across the county. In Fenland in the north of the county the key concerns are linked to an ageing population, deprivation, educational attainment and health inequalities, while in rural areas to the south of the county the overriding issue is the availability of transport to access services. Improving transport has an important role to play in reducing social exclusion and improving accessibility, but the location of services and choices as to how they are provided often have significant transport impacts. One key role of the LTP is to make sure that the impacts of wider policy decisions on people's ability to access services are understood and planned for. Different groups in the county face a variety of transport problems, for example children and young people often rely on parents to provide transport where cycling, walking and public transport opportunities do not exist.

Nationally, 21% of carbon emissions come from the transport sector. In Cambridgeshire in 2007, some 32% of the carbon footprint came from transport. Therefore, reducing carbon emissions and adapting to climate change are a particular focus for this LTP. However, this is a significant challenge given the major growth planned for the county, which if left unchecked will lead to

increased traffic levels and congestion. There will be a need to balance economic growth with a reduction in carbon emissions.

Addressing these issues will be particularly challenging given the current financial and economic climate. Local government is facing one of its most testing times financially meaning that we need to work even harder with fewer resources to address the problems we face. We will need to work more closely with partners in both the public and private sector to make the most of the opportunities and funding available.

Figure 1.3. Growth areas in Cambridgeshire



Greater Cambridgeshire and Greater Peterborough Local Enterprise Partnership

As part of the Government's commitment to localism, they invited partnership bids between local authorities and businesses to set up **Local Enterprise Partnerships** (LEPs). The key aim of LEPs is to "play a central role in determining local economic priorities and undertaking activities to drive economic growth and the creation of local jobs." On 28 October 2010 Government announced Greater Cambridgeshire and Greater Peterborough as one of the successful proposals to move forward and establish their Partnership Board. The emerging LEP may be able to assist with securing funding for transport improvements in Cambridgeshire as LEPs are expected to play a major role in the future of transport.

Aims and Objectives

The Council's strategic objectives, set out below, form the objectives of this LTP. In response to Government's priorities – the economy and climate change – and the views expressed locally in our public and stakeholder consultation, relatively greater importance will be placed on Objectives 3, 4 and 5 in this LTP. The strategy will need to strike a balance between enabling economic growth and tackling climate change.

1. Enabling people to thrive, achieve their potential and improve quality of life
2. Supporting and protecting vulnerable people
3. Managing and delivering the growth and development of sustainable communities
4. Promoting improved skills levels and economic prosperity across the county, helping people into jobs and encouraging enterprise
5. Meeting the challenges of climate change and enhancing the natural environment

Meeting these objectives will contribute towards tackling the transport problems facing the county, including children and young people, older people and vulnerable groups.

Sustainable Community Strategy

The **Cambridgeshire Sustainable Community Strategy** sets out the vision for Cambridgeshire. Its vision is for Cambridgeshire to be a county of strong, growing, prosperous and inclusive communities supported by excellent public services where people can fulfil their potential; live longer, healthier lifestyles; and influence decision making. The LTP supports this vision and will help to deliver it.

Delivery, Value for Money and partnership working

Achieving value for money is now more important than ever given the extremely challenging funding situation facing all local government and public services. This LTP aims to achieve the best possible outcomes from the funding available. Value for money can be achieved through the prioritisation of our programme and through the efficient planning and delivery of schemes. Furthermore, we will need to work more closely with partners to share resources and funding to bring about schemes and initiatives in the most effective way. Projects such as Making Cambridgeshire Count will lead the way.

The strategy

Our overarching transport strategy focuses on achieving our objectives, particularly those aimed at tackling climate change and enhancing the economy, and aims to address existing transport problems while at the same time catering for the transport needs of new communities. To meet our

objectives and address the issues set out above and in Chapter 3, the strategy will widen the choices available for environmentally sustainable transport and manage demand for transport, particularly private car use. Further information on our strategy is set out in Chapter 4.

The LTP suite of documents

This LTP Policies and Strategy document sets the overarching policy context for transport in Cambridgeshire. However, it does not stand alone. A large number of wider local and national strategies, policies and plans inform its content, and in turn, it is part of a larger suite of LTP policy documents that set out detailed transport strategies and programmes for areas, and for different policy themes.

These documents, together with this Policies and Strategy document, inform the LTP Implementation Plan, which sets out our overall programme for transport and which will be updated annually prior to the start of each financial year.

Links with other Policies and Guidance

The key documents that form part of the LTP are shown in **Figure 1.4**.

Why a new LTP?

This LTP has been developed in line with government guidance and the requirements of the Local Transport Act 2008 which states that all local transport authorities must have a new plan in place by 31st March 2011.

The new Plan provides the opportunity to reassess the transport problems we face, review progress made to date, take account of recent research and the views of the public and stakeholders. We can then ensure the Plan is up to date and reflects the needs of people who live, work and travel in Cambridgeshire. It also allows us to take account of the changing economy and recent policy changes at a national level.

Under the Local Transport Act 2008 there is no longer a requirement to renew the Plan every five years; rather we must ensure the Plan remains current. Therefore we will keep the Plan under review and update individual elements of the strategy as necessary. For example, if new developments are planned for a particular area, or if there is a change in national policy, we will be able to review the relevant parts of the Plan without having to review the entire Policies and Strategy document. Our Implementation Plan will be updated on an annual basis.

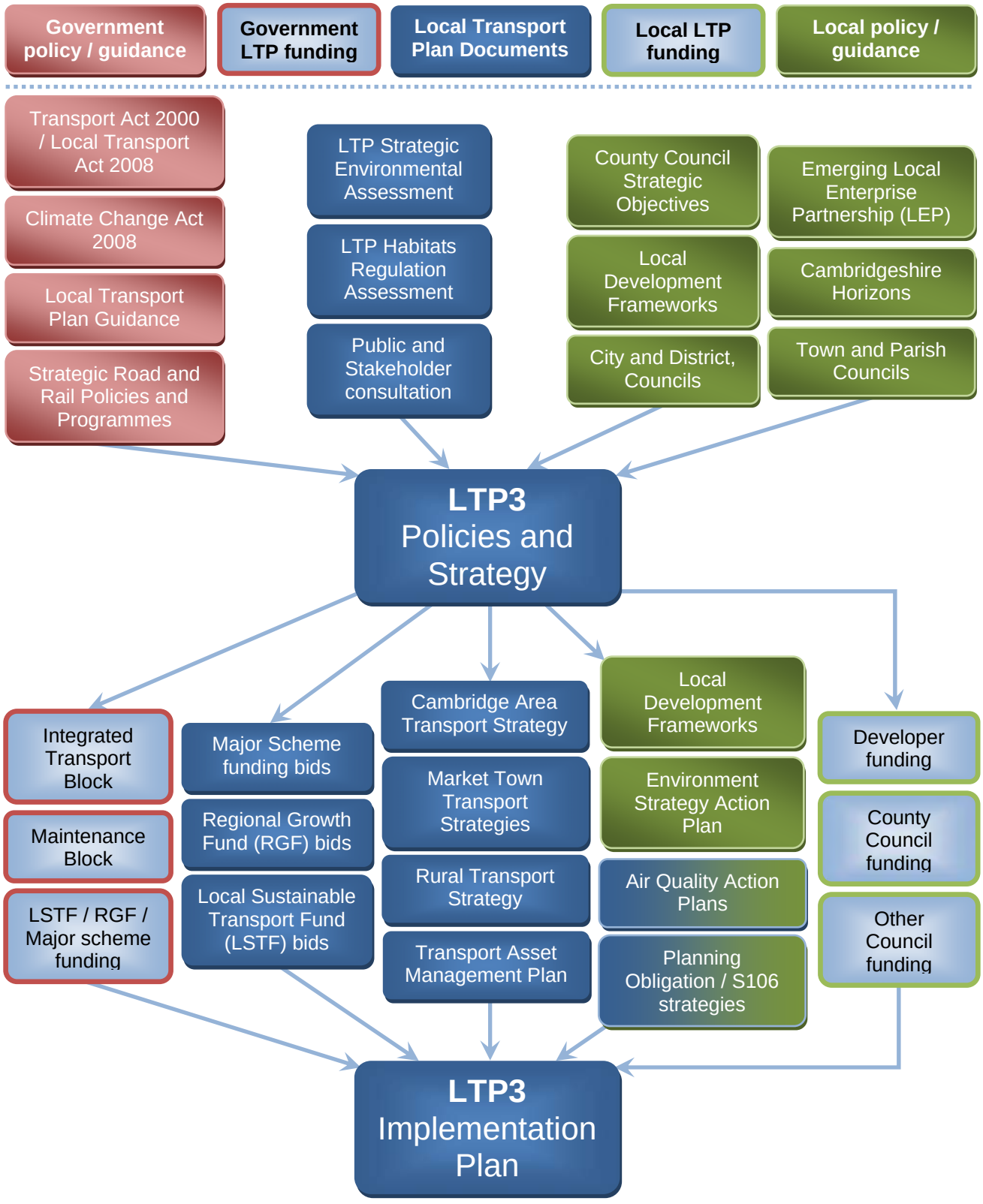
Government will no longer be formally assessing our Local Transport Plan, our progress towards scheme delivery or our targets. We will therefore report progress on delivering our LTP to stakeholders and the public via our **website**.

Funding

The current funding challenge facing local councils is unprecedented and will considerably impact on our ability to deliver transport improvements over the short to medium term. Therefore the delivery of the entire strategy will be dependent on the availability of funding and resources – we will not be able to deliver all of the schemes using government funding alone. In the future, it is likely that only a small proportion of transport funding will come from government funding, therefore over the life of this LTP it will be particularly important to obtain funding from a range of sources to improve the transport network and services in Cambridgeshire. We have robust processes in place for allocating resources to ensure funding is targeted to best meet our objectives. Potential funding sources that may be available to help deliver our strategy are set out below.

- LTP funding – specific funding from central government that is currently identified for maintenance and integrated transport will be one source used to fund our Implementation Plan. However it is anticipated that funding from this source will decrease over the period of this LTP.

Figure 1.4. LTP documents and their links to wider policies, strategies and plans



- Grant / other funding – we will continue to apply and bid for grants and other funding opportunities as they arise. This may be future rounds of Housing Growth Fund or the proposed Regional Growth Fund or the Local Sustainable Transport Fund.
- Developer funding – we will continue to seek and secure developer contributions to mitigate the impact of development on the transport network and the wider environment, and encourage environmentally sustainable travel to, from and within new developments. This will become increasingly important as funding from central government declines.
- Planning Obligation Strategies / Development Plan Documents – secure additional developer funding through mechanisms such as the Corridor Area Transport Plans and Market Town Transport Strategies.
- Community Infrastructure Levy – we will secure funding through the Community Infrastructure Levy once guidance has been published by government. This will enable us to secure funding from a wide range of developments.
- Tax Increment Financing – government is due to introduce new legislation to give local authorities the power to borrow funds against the future uplift in business rates to fund key infrastructure which supports economic development and growth.

2. Objectives

This chapter sets out the overarching objectives of the Local Transport Plan (LTP), which are the County Council's Strategic Objectives, and demonstrates how our policies and plans for transport will contribute towards the County Council's vision – Creating communities where people want to live and work: now and in the future.

Cambridgeshire LTP objectives

Transport has a key role to play in bringing about the Council's vision for Cambridgeshire by contributing towards the delivery of its Strategic Objectives. These have been based on the views of people across Cambridgeshire and will ensure that our work meets the needs of our communities. Our Strategic Objectives/LTP Objectives are:

Strategic Objective 1

Enabling people to thrive, achieve their potential and improve their quality of life.

Strategic Objective 2

Supporting and protecting vulnerable people.

Strategic Objective 3

Managing and delivering the growth and development of sustainable communities.

Strategic Objective 4

Promoting improved skill levels and economic prosperity across the county, helping people into jobs and encouraging enterprise.

Strategic Objective 5

Meeting the challenges of climate change and enhancing the natural environment.

We will work towards achieving these objectives during the LTP period.

In response to the government's announcement on prioritising the economy and climate change nationally and the views expressed locally in our public and stakeholder consultation, relatively greater importance will be placed on Strategic Objectives 3, 4 and 5.

LTP3 contribution to achieving the Strategic Objectives

To achieve the Council's strategic objectives will require input from all of the Council's services and partnerships. **Figure 2.1** summarises how transport and travel, under LTP3 will contribute.

Figure 2.1. LTP contribution to meeting Strategic Objectives

Strategic Objective / LTP3 Objective	Examples of LTP3 contribution
1. Enabling people to thrive, achieve their potential and improve their quality of life.	• Provide a transport network that is efficient and effective • Provide good accessibility to services and for businesses • Influence planning decisions to incorporate green spaces that are pleasant for pedestrians and cyclists
2. Supporting and protecting vulnerable people.	• Develop a Rural Strategy for Cambridgeshire • Support Community Transport schemes • Implement road safety initiatives to reduce road traffic accidents • Provide easily accessible information on transport and travel options • Work with partners to understand the most appropriate methods of service delivery
3. Managing and delivering the growth and development of sustainable communities.	• Discourage use of cars where alternatives exist and encourage use of sustainable means of transport such as walking, cycling and public transport • Facilitate active travel through improvements in footpaths and cycle ways • Implement road safety initiatives to reduce road traffic accidents • Influence planning decisions to co-locate housing with jobs and services to reduce the need to travel • Influence the design of new developments to promote road safety and encourage travel by foot and bicycle • Implement travel plans and other smarter choices measures such as car clubs and car sharing
4. Promoting improved skill levels and economic prosperity across the county, helping people into jobs and encouraging enterprise.	• Develop a Rural Strategy for Cambridgeshire • Implement the Market Town Transport Strategies and a Transport Strategy for Cambridge • Improve accessibility to education and jobs • Provide a transport network that is efficient and effective • Influence national decisions on the strategic road and rail network to ensure Cambridgeshire is an attractive and buoyant location for business • Implement demand management measures where traffic congestion hinders economic prosperity
5. Meeting the challenges of climate change and enhancing the natural environment.	• Consider quality bus partnerships to ensure that public transport operators use increasingly 'clean' fleets • Monitor air quality and implement Air Quality Action Plans • Develop Noise Action Plans • Actions to address traffic growth, particularly car use • Future proof our maintenance programme and scheme appraisal processes against the effects of climate change • Encourage behavioural change away from single occupancy car use • Minimise the impacts of transport on the natural environment, heritage and landscape and seek solutions that deliver long – term environmental benefits.

This chapter has set out our LTP objectives and has outlined how they will contribute towards creating communities where people want to live and work. We will work towards these objectives through the delivery of our Implementation Plan, and will report our progress against it each year.

Local Transport Plan indicators

A number of performance indicators will be used to monitor progress against Local Transport Plan objectives, as detailed in **Figure 2.2**. The indicators, targets (where set) and monitoring regime are set out in detail in the LTP Implementation Plan.

Figure 2.2. Cambridgeshire LTP3 indicators

Area	Ref.	Indicator
Road Safety	LTP 01	People killed or seriously injured in road traffic accidents
	LTP 02	Children killed or seriously injured in road traffic accidents
	LTP 03	Pedestrians and cyclists killed or seriously injured in road traffic accidents
	LTP 04	Road accident casualties slightly injured
Trends in travel	LTP 05	Local bus passenger journeys originating in Cambridgeshire
	LTP 06	Bus services running on time
	LTP 07	Cycling trips index
	LTP 08	Mode of travel to school
	LTP 09	Traffic travelling across the Cambridge radial cordon
	LTP 10	Congestion – average journey time per mile during the am peak
Environment	LTP 11a	Emissions of Greenhouse gases from road transport
	LTP 11b	Emissions of Greenhouse gases from road transport per capita
	LTP 12	Trends in Air Quality (in Air Quality Management Areas)
Road and footway condition	LTP 13	Principal roads where maintenance should be considered
	LTP 14	Non-principal classified roads where maintenance should be considered
	LTP 15	Condition of footways

All indicators cover the whole of the county unless otherwise noted.

3. Problems and Challenges

Introduction

While focusing on transport, the LTP is one of a number of strategies aimed at improving the quality of life for all who live, learn, work and travel in Cambridgeshire. Therefore as part of the development of the Plan we have fully considered wider issues such as the economy, climate change and quality of life to ensure our transport strategy fully reflects the needs of Cambridgeshire residents and the wider objectives of the Council and its partners. The consideration of a range of issues allows us to take account of emerging trends, changing policy and the changing environment. The problems set out in the following sections help to set the wider context for this Plan, recognising the geographical, environmental, social and economic differences across the county.

Transport and land-use planning are inextricably linked. Our analysis of the problems we face takes close account of land-use policies, housing and employment trends and future proposals for growth. This is to ensure that our transport strategy reflects the anticipated housing and population growth and can focus on sustainability and local communities.

We recognise that the LTP cannot solve all of these problems and address the challenges on its own; therefore it will be essential to continue to work closely with partners in the public, private and voluntary sector to bring about schemes and initiatives to improve the quality of life for all who live, learn, work and travel in Cambridgeshire.

The identification of problems and the challenges posed in addressing them has informed the development of our transport strategy and will drive the delivery of this Local Transport Plan. The following methods and tools have been used to inform the problems and challenges we face.

- Public consultation (full results are available **online**)
- Stakeholder and partner consultation – including District Councils, Parish Councils, Local Strategic Partnerships, transport operators and lobby groups
- Local and national research
- Census data
- Transport modelling data
- Environmental data, including air quality monitoring

In this chapter we outline the problems we face based on the evidence available and for each of our Strategic Objectives, highlight the key challenges which form the basis of our transport strategy.

Strategic Objectives 1 and 4

Enabling people to thrive, achieve their potential and improve their quality of life.

Promoting improved skill levels and economic prosperity across the county, helping people into jobs and encouraging enterprise.

Strategic Objectives 1 and 4, outlined in **Figure 2.1**, are inextricably linked so we have grouped them together in order to define the problems and challenges they bring. Transport significantly affects people's quality of life and their ability to access employment, recreational facilities, healthcare and education, and is critically important to the economy. Congestion leads to lost working hours and can discourage new businesses seeking to relocate in an area, while the availability of environmentally sustainable transport can attract new businesses to an area and therefore provide more job opportunities, and increased levels of cycling and walking can help to improve well-being and quality of life. In addition to the availability of sustainable transport options, businesses are also encouraged to promote flexible working policies to reduce the need to travel.

The Cambridge sub-region has a very buoyant local economy. However, the economy elsewhere in the county, particularly the north is less strong and as such different issues exist, especially in relation to equality of opportunity and social inclusion. In addition, there are particular groups of people across the whole of the county for whom the consequences of being unable to access certain services significantly impact on their life chances. Equality and inclusion is prioritised by Cambridgeshire's **Sustainable Communities Strategy** (SCS) for 2007-2021. The SCS addresses social and economic disadvantage through the **Local Strategic Partnerships** (LSPs). Priority outcomes include equality in healthcare and appropriate access to services and facilities for all communities.

Issue – a dispersed rural population

Although the economic focus for the county centres on Cambridge, much of Cambridgeshire is very rural in nature. Some 51% of the population[1] of the county lives outside Cambridge or one of the larger market towns and this brings its own set of problems and challenges for transport.

The characteristics of a dispersed population mean that Cambridgeshire's public services – including transport provision – face a challenge to ensure they are sufficiently accessible for all people, particularly those living in rural areas. It is recognised that poor accessibility means that many people simply do not make the trips they need or wish to make. Given that a significant minority of people do not have access to a car the main issues relate to:

- Access to the public transport system, and
- The ability to reach destinations, services and facilities within a reasonable amount of time, cost, level of effort and safety.

For transport, providing a service that meets the needs of local people is a key challenge in rural areas. The dispersed nature of communities in rural areas means that it is often not viable for commercial bus operators to run traditional services, and even when they do, frequencies often do not allow people to access the services they need at the times they need. Furthermore, long journey times and poor reliability can often make trips by bus an undesirable choice for many people, particularly for the journey to work. Many of these issues were raised through public consultation, and public transport improvements were seen to be the most important transport intervention.

[1] 2009 Joint Strategic Needs Assessment for Cambridgeshire Phase 3

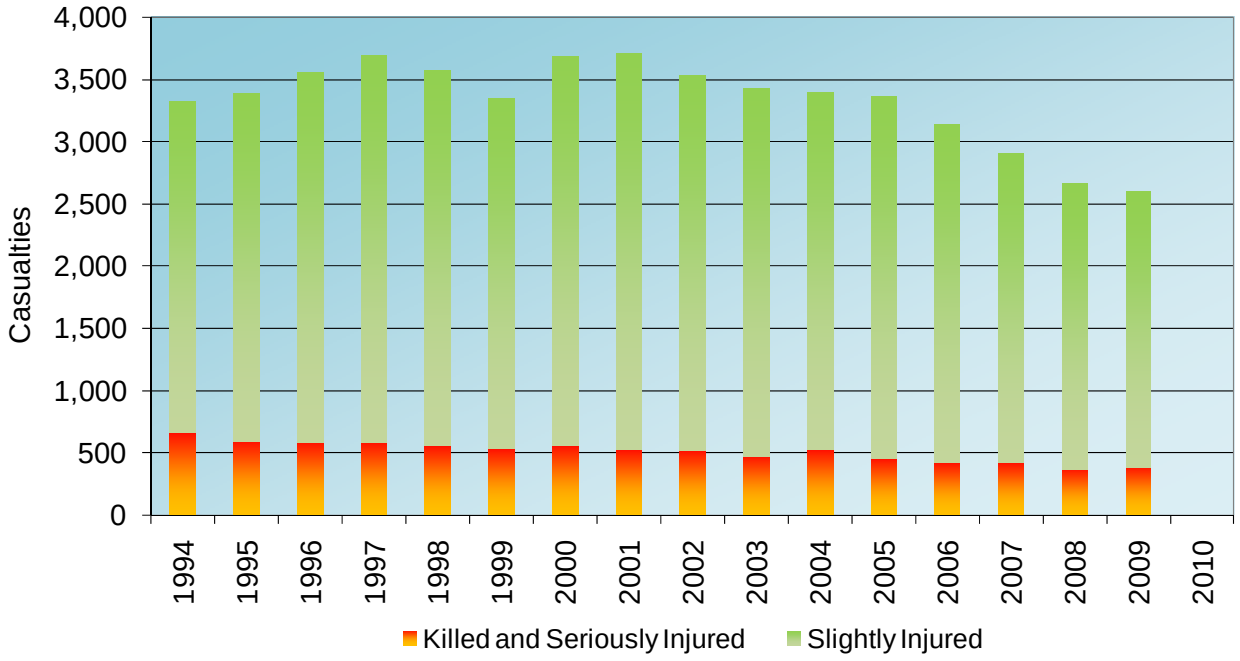
Where services are not commercially viable, the County Council subsidises some routes if they are seen to be socially necessary. However, funding for these services is continually under pressure and will remain so for the foreseeable future. The lack of public transport in rural areas causes real issues for those who do not own, or have access to a private car, which at the time of the 2001 Census was 18% of the population of the county, although this varies by district.

We therefore need to look to alternative, more innovative ways of providing the transport people need to access services. In particular, we need to explore the role that community transport can play, as well as making walking and cycling more attractive for shorter journeys. Equally, we need to work with other public service providers to see if services can be moved to people rather than people to services, through **Local Strategic Partnerships**, Making Cambridgeshire Count and the emerging **Local Enterprise Partnership**. Improving public transport journey times, increasing reliability and improving punctuality will help to improve quality of life for public transport passengers.

Issue – safety on our roads

In 2009 there were 1,933 accidents that resulted in injury reported on Cambridgeshire's roads, in which 384 casualties were killed or seriously injured. The consequences of accidents on our roads were estimated to have cost £231 million in 2009, but the impact of these tragedies on families and communities is impossible to quantify[2]. **Figure 3.1** shows casualties from road accidents in the county since 1994.

Figure 3.1. Road accident casualties in Cambridgeshire since 1994



Long-term trends in road accidents are monitored on a three-year rolling average and since our baseline of 1994-98, across Cambridgeshire and Peterborough traffic levels have increased by 21%. Despite this, the number of people killed or seriously injured has dropped by 36%, and slight injuries dropped by 24% in the same period. However one death or injury is one too many therefore we need to continue to do all we can to make our roads safer, address misperceptions of safety and to train and educate people to travel more safely.

[2] **2009 Joint Casualty Data Report**

There is a wealth of data available that enables us to identify what the key problems are with regard to accidents on our roads and therefore how we should target resources to reduce them. In Cambridgeshire the main problems are:

- **Young drivers**: The highest frequency of accidents occurs in the age group 18-20. In Cambridgeshire there is a clear spike in the number of casualties in this age group, as car driver, car passenger and motorcyclist.
- **Work-related**: Injuries incurred during journeys undertaken to/from or as part of work account for nearly half of all driver/passenger/rider accident injuries.
- **Motorcycle accidents**: Motorcyclists in Cambridgeshire account for a disproportionately high number of the overall total of serious injuries and deaths, despite there being far fewer motorcycles than cars on the roads.
- **Speed**: National research estimates that excess speed is a contributory factor in a third of all fatal accidents.
- **Rural roads**: Accidents on rural roads contributed to over a third of all casualties in 2008 and 45% of all serious casualties. Above average traffic density on Cambridgeshire's rural roads is a major factor in the high per capita casualty rate in the county. There are 3-4 serious injuries a year and one death per year on Fenland's roads due in part to the inherent dangers of single carriage rural roads combined with inappropriate driving.
- **Migrant road users**: Between 2002 and 2008, 48,000 non-UK nationals registered for a national insurance number in Cambridgeshire and Peterborough, although this may only reflect part of the picture. There is a continuing influx of migrant workers from other countries with some 100 languages now being spoken in the region. Different cultures sometimes have different attitudes to road safety and this is an issue we will address through our road safety education campaigns.
- **Traffic growth**: Traffic is expected to grow markedly during the lifetime of the Local Transport Plan, particularly on key routes such as the A14. This is driven by new developments and the ongoing trend for people to travel longer distances by car, increasing the risk of accidents.

Issue – contributing to better health and active travel

The success of Cambridge and its surroundings as a centre for employment, education and leisure means that many people commute distances that are too far to walk or cycle. In addition, the rural nature of much of our county means that people have to travel long distances to access the services and leisure facilities they need. This trend means that people are using their cars for many more journeys and are becoming less active as a result because cycling and walking are not integrated into their daily lives in the same way as they were a generation or more ago. National planning guidance seeks to address some of these issues over the long term, but in the short term the challenge is to enable people to integrate cycling and walking – 'active travel' – into their daily lives.

There are also clear links between active travel, improved air quality and improved health outcomes. Poor air quality which can be attributed to emissions from vehicular transport has both long- and short-term effects on health, such as increasing the risk of asthma and other respiratory problems. Therefore, by encouraging active travel as an alternative to car travel, air quality can be improved and these types of conditions reduced.

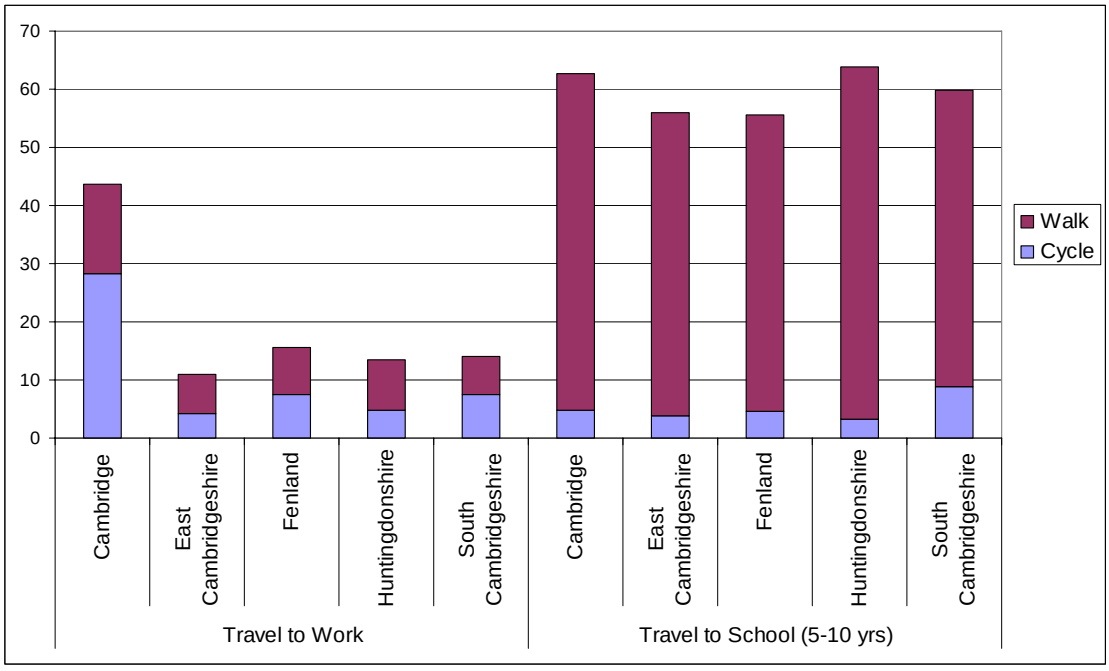
The impact of physical inactivity on society is becoming a significant issue at both a local and a national level. In recent years obesity has emerged as an important public health issue, particularly among children. Weight gain is linked with serious diseases such as heart disease, diabetes and cancer and is estimated to be responsible for 9,000 premature deaths a year in the UK. The Health Select Committee estimates the costs of obesity to be between £3.3 and £3.7 billion per year nationally and there are concerns that obesity in childhood can lead to serious health complaints in later life. **Research** carried out for the Government clearly states that the obesity problem is comparable to climate change in terms of its scale and complexity. The Medical Research Council

is undertaking a **study** to investigate the influence of diet, lifestyle and genetic factors on the development of diabetes and obesity.

In Cambridgeshire as a whole the problem is less acute than at a national level although 8% of reception class children and 16% of Year 6 primary school children are classed as obese. Across the county, only 23% of adults (16 years and older) participate in 30 minutes of moderate intensity sport and active recreation three times a week; this figure is significantly lower in Fenland.

The significance of the problem at a local level and the need to address it before it gets worse, is recognised. In addition, NHS Cambridgeshire has an **Obesity Strategy** which particularly focuses on the problem among primary school children. The strategy involves developing programmes with schools, marketing campaigns and influencing planning decisions.

Figure 3.2. Levels of walking and cycling in Cambridgeshire



The challenge for the Local Transport Plan is to help adults and children incorporate cycling and walking into their daily activities, which would make it easier for many more people to have the 30 minutes a day of moderate physical exercise as recommended by the Department of Health. Short trips of less than two miles make up over 25% of trips, therefore there is an opportunity to target some of these to be made on foot or on bicycle. Even for longer trips there is the opportunity to make part of the journey by a sustainable mode, for example, cycling from Park & Ride sites. We are fortunate that there is already a strong culture of cycling in and around Cambridge for journeys to work as shown in **Figure 3.2** and this is a culture we want to encourage across the whole of Cambridgeshire.

The main barriers to getting more people to walk and cycle are set out on page 4-24. Our strategy needs to address these issues in order to encourage more people to walk and cycle more often and therefore become more active as part of their everyday lives.

Challenges for the strategy

- Ensuring people - especially those at particular risk of social exclusion - can access the services they need within reasonable time, cost and effort wherever they live in the county.
- Addressing the main causes of road accidents in Cambridgeshire.

- Making environmentally sustainable modes of transport a viable and attractive alternative to the private car.

Strategic Objective 2

Supporting and protecting vulnerable people.

Transport has a key role to play in supporting and protecting vulnerable people and in helping to reduce social exclusion. Access to the transport network can enable vulnerable people to access the services and recreational facilities they need, while safety initiatives can help people to feel more confident about travelling and therefore reduce the risk of accidents. Cambridgeshire's ageing population brings particular challenges for transport. For example, older people may not have access to a private car or easily be able to use public transport. Therefore it is a challenge for this LTP to help ensure older people and other vulnerable groups can access the services and facilities they need by promoting community transport and supporting voluntary car schemes, and working with service providers to maximise the accessibility of services. It is also important to recognise that younger people can be vulnerable, not only from a road safety point of view but also in areas with few public transport services, particularly as they cannot drive.

Cycle/walking buddy schemes can help to encourage walking and cycling by pairing less confident people with people who may be more familiar with a route. **Camshare**, for example provides a facility that enables cyclists to find a cycle buddy to share their journey.

Issue – groups at risk of deprivation in Cambridgeshire

Despite Cambridgeshire being relatively prosperous, significant variations in health, educational attainment and employment opportunities exist. The **Social Exclusion Unit's 2003 report** on the links between social exclusion, transport and the location of services examined the effect access had on those opportunities that have the greatest effect on life-chances, such as education, healthcare and work. Not only is the lack of availability of transport a barrier to accessing these opportunities, but cost, physical accessibility, preconceptions about safety and security, location of services and limited travel horizons can also be factors. Work carried out to inform the Accessibility Strategy in our **Local Transport Plan 2006-11** revealed that barriers to accessing many services were the length of time the journey took by public transport, and not being able to access services at the time they are needed, especially during the evenings and at weekends. It is also important to recognise that many residents rely on services provided outside of the county in nearby towns and cities, such as Royston, Haverhill, Newmarket, Saffron Walden, Biggleswade, Bedford and Peterborough and that this needs to be considered in our strategy.

Furthermore, particular groups of people can be more deprived than others in terms of social exclusion and in Cambridgeshire the **County Council's Sustainable Community Strategy**[3] identifies deprivation among travellers, disabled people, migrant workers, young people and the elderly. Difficulties in accessing services and recreational facilities can have even greater implications for these groups of people. Transport can play a key role in supporting and protecting vulnerable people by helping to improve access to key services, and access to education and training for young people. We also need to work with the voluntary sector to provide a voice for vulnerable groups to ensure their transport needs are catered for.

One specific issue that is receiving increased attention locally is access to health provision. There are health inequalities throughout Cambridgeshire with better overall health outcomes experienced in the south of the county. In outlying rural areas, improving accessibility could increase take-up of health services. This would impact on access to specialist treatment among older or vulnerable people. Health inequalities in Fenland are recognised in the **Fenland Sustainable Communities Strategy** and an action plan exists to tackle these.

[3] Cambridgeshire's Vision 2007-11 is the County's Sustainable Community Strategy, and it reflects the local priorities of the sustainable community strategies produced by the county's five districts.

Issue – an ageing and growing population

Plans for growth in the county are considered later in this chapter; however the effects of growth on different age groups will be different across the county. The major growth areas planned for the county are in and around Cambridge; therefore Cambridge City and South Cambridgeshire will see the greatest increase in young people aged 0-19. Conversely Huntingdonshire will see a significant decrease in the number of young people, as will, to a lesser extent, East Cambridgeshire and Fenland[4].

As the population of the county increases, so will the number of older people. Countywide, the number of people aged 65+ is expected to increase by 54% by 2021 although again there are variations across the districts with the greatest increase being seen in South Cambridgeshire (80%) followed by Huntingdonshire, East Cambridgeshire, Fenland and then Cambridge City. Quality of life for older and isolated people is about being able to lead a full and active life, not just about being able to access essential appointments. A further consideration, particularly in Fenland is the growth in the number of migrant workers in the county. Fenland has a large number of migrant workers that are employed in the fields, factories and service sectors. Traditionally migrant workers were attracted by seasonal work. However, since 2003 there has been a shift towards more settled populations, particularly from Portugal and Eastern Europe[5].

As part of **The Big Plan 2 – Cambridgeshire's Children and Young People's Plan 2009-12**, young people developed a Transport Plan and identified the main transport issues facing young people as the availability and cost of public transport, and for some more vulnerable young people, concerns around feeling safe. The Big Plan 2 also identified that the needs of children and young people need to be considered in areas of growth or demographic change and transport has an important role to play in these areas. Ensuring young people have access to transport that will enable them to access and sustain places in education, employment and training can be a crucial factor in helping them make a successful transition to adult and working life. Ensuring children and young people can access positive leisure activities especially in the evenings, weekends and in school holidays contributes to the quality of their and family life and helps them gain the skills and experiences needed to succeed. For children and young people living in areas of deprivation this is of particular importance.

Issue – Road accidents involving vulnerable people and those from deprived areas

Road accidents represent a major cause of preventable deaths, especially in younger age groups, and often cause long-term disability and suffering to those involved.
The **Independent Inquiry into Inequalities in Health Report** found that road accident death rates were higher in the lower socio-economic groups, and that nationally, 600 deaths a year could be saved if all men aged 20-64 had the same mortality experience as those in the highest social classes. There are also inequalities between different age groups, gender, and between geographic areas. For example, although recent research by Nottingham University showed that risk taking behaviours such as driving at excessive speed and not wearing a seat belt are more prevalent in fatalities for people in the most deprived Indices of Multiple Deprivation (IMD) quintiles; young drivers under 24 years old make up a high proportion of fatalities across all IMD quintiles. Our road safety strategy must take these issues into account by focusing on education and training for younger people in particular.

Challenges for the strategy

- Ensuring people - especially those at particular risk of social exclusion - can access the services they need within reasonable time, cost and effort wherever they live in the county.

[4] **Cambridgeshire Joint Strategic Needs Assessment**
[5] Fenland Sustainable Community Strategy Evidence Base

- Addressing the main causes of road accidents in Cambridgeshire.

Strategic Objective 3

Managing and delivering the growth and development of sustainable communities.

The Cambridge Sub-Region has a strong economy, and an efficient and effective transport network is key to its continued success. This objective concerns the need to accommodate growth to support and grow the economy, helping to provide much needed new jobs and homes in the area. With thousands of new homes planned to be built in the county, it is essential that the LTP supports the growth of sustainable communities. There are clear links between this objective and Strategic Objective 4 in terms of promoting improved skills levels and economic prosperity through the provision of new job opportunities.

Issue – growth of the local economy

The Greater Cambridge area is an economic success story. The growth of the local economy has brought many new jobs and people to the region but population growth of over 20% since 1981 has placed significant pressure on the county's housing supply. In Cambridge, the average house price is nine times the average salary and as a result, many people who work in the city cannot afford to live there. This has resulted in people having to move further and further away from Cambridge in order to be able to afford to buy or rent a home. Increasing prosperity has also contributed to an increase in the number of cars on our roads, with overall traffic levels in the county continuing to rise. The consequence of this is the length of commuter journeys in Cambridgeshire is double the national average, placing increasing pressure on the county's transport networks and its environment.

Not only are people travelling longer distances to get to work in Cambridgeshire, it is taking them longer to do so. Increasing congestion on the roads, particularly on the main corridors into Cambridge and the inner radial routes is already having a detrimental effect on businesses in the area. A **study** published by the East of England Development Agency in 2008 suggests that traffic congestion in the region already costs businesses and residents £1bn a year with this figure expected to double by 2021. More locally, the growth of the Greater Cambridge economy is already being limited by current congestion levels, a situation which will worsen over time if traffic levels are allowed to increase unchecked. **A survey** of local businesses in 2009 revealed that some 40% regarded congestion as already 'very bad' or 'at a critical level'. Matters are set to worsen considerably in the future if we do not address the situation.

The Cambridge sub-region continues to perform as a centre of high-tech industry, with the sectors of information and communications technology (ICT), biotechnology and research and development (R&D) being both regional and national lead sectors in the economy and hence well-positioned to play a major role in helping the country out of the economic downturn.

The Cambridgeshire and Peterborough Structure Plan (2003) set out a sustainable strategy for growth in the county. A number of Structure Plan policies remain in force, in particular, related to the LTP:

- Policy P2/3 (Strategic Employment Locations) – which identifies sites at Alconbury Airfield, Northstowe, the Cambridge fringes, March, Wisbech and Chatteris.
- Policy P2/5 (Distribution and Warehousing) – which seeks to locate developments which generate large volumes of freight movement to sites with good access to rail freight facilities, and to motorways, trunk roads or other primary routes.
- Policy P8/10 (Transport Investment Priorities) – which sets out key strategic and local transport schemes needed to deliver the growth strategy.
- Policies 9/2b and 9/2c (Review of Green Belt Boundaries and Location and Phasing of Development Land to be Released from the Green Belt) – which set out a strategy for the development of key sites in and around Cambridge.

- Policy P9/9 (Cambridge Sub-Region Transport Strategy) – which sets out a series of transport interventions in Cambridge, around the Cambridge fringes, at Northstowe and in market towns and rural centres.

The growth strategy set out in the Structure Plan was adopted largely unchanged in the East of England Plan (the Regional Spatial Strategy or RSS), which was published in May 2008. The RSS planned for an additional 75,000 new jobs and 73,300 homes between 2001 and 2021.

Although the RSS has been abolished as part of the Localism Bill, the City and District Councils' Local Plan and Local Development Frameworks have set out plans for delivering this growth and sites are currently being developed or are planned to come forward in the future. The majority of new development is being focussed on extensions to Cambridge and a new town between Cambridge and Huntingdon called Northstowe, with the remaining growth being accommodated in the county's market towns. This strategy will result in a 16% growth in the countywide population – compared to 8% nationally – with 30% growth in Cambridge and South Cambridgeshire, and an estimated 32,500 extra inbound vehicle trips to Cambridge. It is essential that these new developments are designed to encourage active travel such as walking and cycling.

The predicted growth and resulting increased traffic levels in Cambridge is estimated to result in a 46% increase in travel time within Cambridge and a 23% increase in the Cambridge sub-region by 2021. Whilst roads in and around Cambridge will bear the worst of the congestion, without intervention, further congestion will arise on roads such as the A14, the A10, the A505 and the A428. Localised congestion will also be experienced in the market towns as a result of housing and job growth. Cambridgeshire's road network cannot easily accommodate such a substantial increase in car trips and to avoid gridlock, further action will be necessary to address the demand for private car journeys when compared with other modes of transport. The Government is due to abolish Regional Spatial Strategies and is returning decisions on growth to local authorities, however, Cambridgeshire is seen as an attractive place to live and invest in, and the pressure for development is likely to remain strong.

While the economy in the Cambridge area is successful and is planned to grow further, the economy in the northern part of the county is less strong. Issues such as educational attainment, a lack of services, and poor access to services and major centres of employment are hindering the growth of the economy in this part of the county. For example, nearly one in four children in Fenland are now considered to live in a low-income household, often with linked implications for their health and educational achievement. The average number of premature deaths is significantly higher than the Cambridgeshire average, which is related to poor diet, low levels of exercise, high levels of smoking, and a high level of road traffic accidents. However, despite these trends, Fenland is a growing district, and there is a need to ensure services and infrastructure are fit to serve Fenland's growing population, with a large and growing migrant population, particularly from Eastern Europe. There is a shortage of affordable housing with the increase in house prices outstripping increases in average earnings. Average full-time wages in Fenland are low compared to the rest of the county (£421.90 per week compared to Cambridgeshire's average of £493.00[6]). Raising skill levels and accessibility in the district is a key challenge that must be addressed to help break the cycle of deprivation by attracting higher skilled jobs to the area. Fortunately there is also great potential for increased inward investment and business growth in priority sectors. There are also pockets of deprivation in parts of East Cambridgeshire and Huntingdonshire as a result of declining traditional industries, limited public transport access and rural isolation due to poor access to services. Transport and travel planning can help to address some of these issues by improving accessibility and helping to attract new services and amenities to the area.

[6] Median weekly gross income of full-time workers. Office for National Statistics, Annual Survey of Hours and Earnings 2007

Issue – the wider economy

Much of the traffic on the county's main roads is through-traffic. Cambridgeshire lies on strategic national corridors for access to Stansted airport and between the Haven Ports and the Midlands. The increasing importance of these destinations has contributed to increased through-traffic and freight traffic in Cambridgeshire. This is especially evident on the Cambridgeshire stretch of the A14. Growth in freight traffic, which often passes close to and through our villages, driven largely by major port developments is forecast along with the second-fastest growing population up to 2031. Between 1990 and 2008, traffic on the county's roads increased by 40%, compared to a national average of 24%. This trend is set to continue in the future with traffic forecast to grow 37% by 2025 compared with 2003 levels.

Challenges for the strategy

- Reducing the length of commute and the need to travel by private car.
- Making sustainable modes of transport a viable and attractive alternative to the private car.
- Influencing national and local decisions on land-use and transport planning that impact on routes through Cambridgeshire.
- Improving the reliability of journey times by managing demand for road space and maximising the capacity and efficiency of the existing network.

Strategic Objective 5

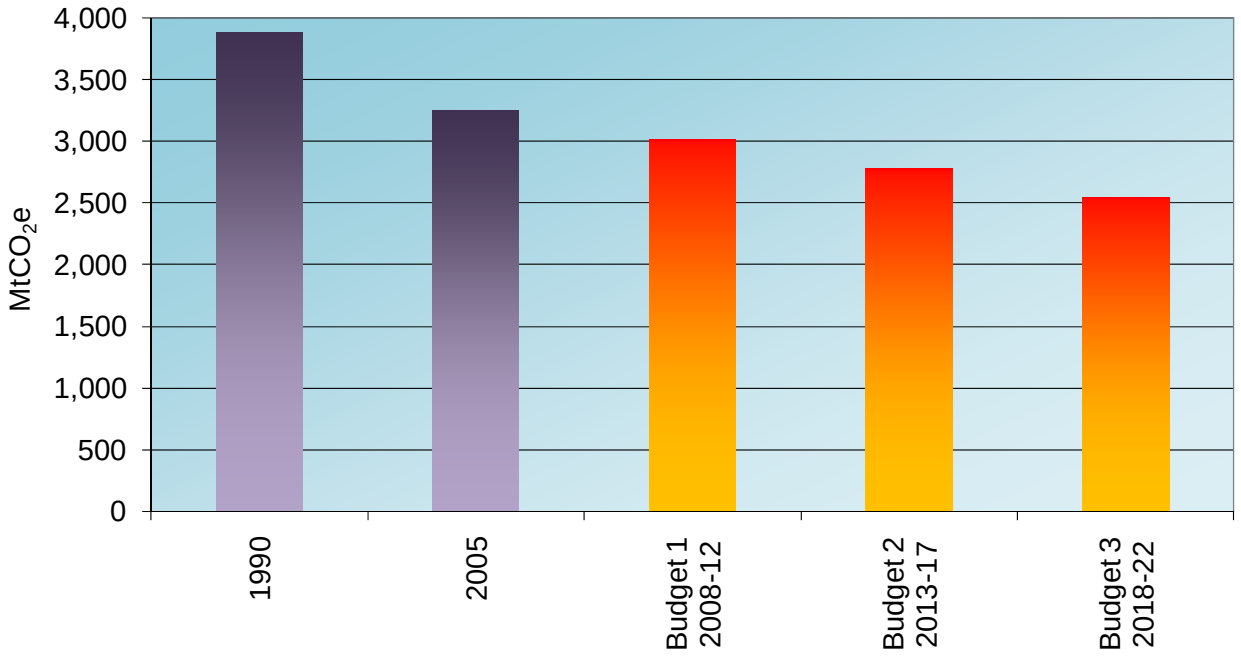
Meeting the challenges of climate change and enhancing the natural environment.

Climate change is a global issue that will impact every aspect of life in the UK, from the economy, society and environment, to our well being and that of our children. The UK alone accounts for 2%[7] of global greenhouse gases of which 21% is caused by the transport sector. For transport, the challenges related to climate change are addressing the cause – contributed to in no small part by our dependence on the private car – and planning for and dealing with the effects of climate change on our transport networks. Even against a backdrop of growth in the county, we are committed to enhancing the natural environment to ensure Cambridgeshire is a pleasant place for people to live and work and offers opportunities for recreation while protecting and creating habitats for our flora and fauna.

Issue – reducing carbon emissions in a growing local economy

The **Climate Change Act 2008** requires the UK to reduce its greenhouse gas emissions by 34% on 1990 levels by 2020 and 80% by 2050. In the shorter term, three 'carbon budgets', covering the periods 2008-12, 2013-17 and 2018-22 have been set. As shown in **Figure 3.3**, these require cuts of around 22%, 28% and 34% respectively from 1990 levels. As transport contributes significantly to current emissions, reducing transport emissions will be vital if the budgets are to be met.

Figure 3.3. UK Carbon budgets as set out by the Climate Change Act 2008



Source: DfT (2009) Low Carbon Transport: A Greener Future

The latest available data is from 2008 and shows that Cambridgeshire's annual carbon footprint was 6.1 million tonnes, 32% of which came from transport[8]. Whilst CO_2 from the domestic sector is starting to decrease, there is no clear trend from road transport emissions. This reflects the issues already highlighted about the length of commute and levels of car ownership in the county, as well as high levels of through traffic on the A14, A1(M) and M11.

[7] See http://www.theccc.org.uk/reports/building-a-low-carbon-economy
[8] National Statistics dataset: carbon dioxide emissions.

Whilst total levels of CO_2 emissions from road transport have shown a small decrease over the period 2005 to 2008 in Cambridgeshire, total levels of CO_2 emissions per capita have shown a greater decrease over the same period[9]. This means that against a backdrop of increasing population, the amount of CO_2 emissions per person has dropped. However, this is primarily due to the decreasing levels of CO_2 emitted from non-transport sectors. At a local level, the growth in population and of the local economy has contributed to an increase in traffic and congestion in Cambridgeshire.

It will be a challenge to reduce absolute levels of carbon emissions from transport in the county while growth continues and transport demand increases. Over the next fifteen years, it is expected that substantial advances in fuel efficiency will contribute to a large reduction in carbon emitted per vehicle per mile. However, estimates clearly show that overall population growth will more than offset this reduction by generating many more miles travelled by private transport. Unless patterns of unsustainable travel behaviour are controlled, the county as a whole will be unable to reduce carbon emissions from transport.

Issue – dealing with the effects of climate change

Although the causes of climate change are global, the effects will be felt locally. We will need to anticipate what the impacts may be on our transport network and plan for them accordingly.

Projections from **UKCP09** indicate that the East of England's average annual temperature may increase, so that by the 2050s, the winter mean might be between +1.1 and +3.4^{o}C; and the summer mean between +1.2 and +4.3^{o}C above current average temperatures. Although it is very difficult to confidently predict exactly how our future climate will alter as a result of climate change; it is expected that our county would experience:

- Hotter, drier summers
- Warmer, wetter winters
- Reduced summer rainfall but more torrential downpours and flooding
- More – and more severe – 'extreme weather events' such as storms and droughts
- Rising sea-levels, particularly affecting low-lying parts of the county, especially to the north

The consequences of these effects are particularly marked for the maintenance of our transport network given that many of our roads are built on low lying land and on peat soils. The unusually hot summer of 2003 caused considerable damage to our road network, resulting in the need for some £3million of additional maintenance expenditure that year. The excessive heat exacerbated damage to some roads already in need of repair, causing further structural damage beneath the road surface. With average summer temperatures in the East of England projected to increase by between +1.2 and +4.3^{o}C over the next 40 years, we can expect to see further disruption to the network through heat and subsidence damage[10]. More intense rainfall will affect embankments and bridges, as well as washing more debris into gullies. There will also be a greater risk to those roads that lie in flood plain areas. The Environment Agency estimate that 23% of the area of Cambridgeshire is at risk of 1 in 100 year flood events from rivers without defences. We will utilise the recommendations in the **Pitt Report** to plan and manage our response to flooding on the transport network and meet the requirements of the Flooding and Water Management Act which gives the Council the responsibility for managing the risk of all local floods in the county.

DEFRA's Strategic Statement **Adapting to Climate Change: A new approach** sets out the government's commitment to ensuring climate change adaptation becomes ingrained in the way we manage the natural environment in order to manage the severity of its impact. The forthcoming

[9] See http://www.decc.gov.uk/en/content/statistics/climate_change/gg_emissions/uk_emissions/2008_local.aspx for further information.
[10] UKCIP UK Climate Projections 2009

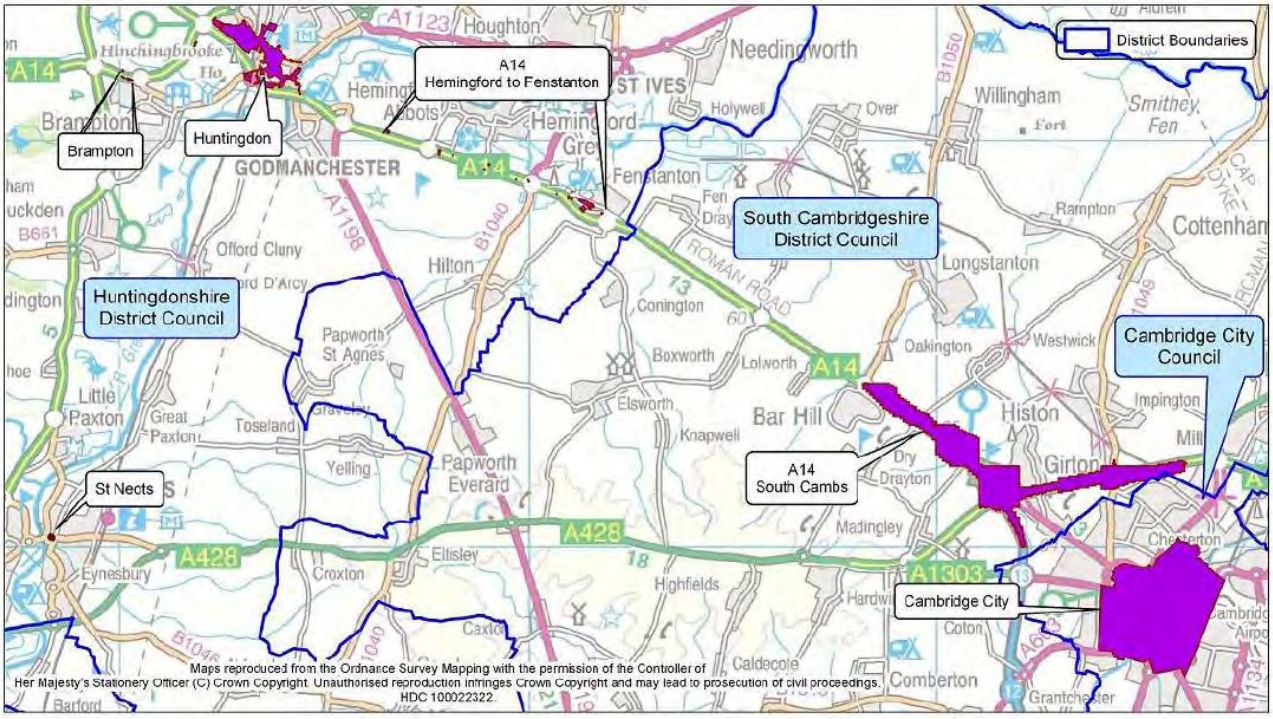
Natural Environment White Paper will set out practical action to address the impacts of climate change. We will take account of these policies when developing our proposals for adapting to climate change.

Issue – Air Quality

Poor air quality has significant environmental effects, particularly on international habitat sites and both long- and short-term effects on health, such as increasing the risk of asthma and other lung problems. Children and the elderly and those with existing respiratory and cardiac problems are among the people most sensitive to these effects. Government estimates published in the National Air Quality Strategy indicate that exposure to current levels of air pollution is expected to reduce the life of every person in the UK by an average of 7-8 months. Poor air quality is thought to cause more mortality and morbidity (deaths and illness) than passive smoking, road traffic accidents or obesity.

The cost through ill health, of poor air quality, is in the region of £20 billion[11], compared with £10.7 Billion for Obesity and up to £18 Billion for Alcohol use.

Figure 3.4. Air Quality Management Areas around Cambridge



Health based objectives for a number of air pollutants are set nationally by the Government. Where an area exceeds these levels an Air Quality Management Area (AQMA) is declared and Air Quality Action Plans (AQAPs) developed to demonstrate how the local authority intends to work towards meeting the objectives. See page 4-79 for more detail. Local Authorities are under a legal duty to take action in pursuit of these objectives under the Environment Act 1995. The objectives became legally binding under EU law in January 2010. In Cambridgeshire there are seven traffic related AQMAs as shown in **Figure 3.4** and set out in **Figure 3.5**.

[11] House of Commons Environmental Audit Committee (2010) Air Quality; Fifth Report of Session 2009-10

The issues we have with air quality in Cambridgeshire and particularly along the Cambridge – Huntingdon corridor and in Cambridge City are caused by many of the same issues already outlined for congestion and climate change:

- The importance of Cambridge as a centre for employment, education and leisure leads to heavy demand for access to the historic centre where there are narrow streets. The concentration of buses in central Cambridge is the single largest source of transport related pollutants in the city centre.
- The prevalence of long-distance freight on the A14 East-West corridor leads to a very high proportion of heavy goods vehicles, which contribute a disproportionate amount of polluting emissions in terms of vehicle numbers.
- Congestion on key routes in Cambridge and the market towns also worsens the problems caused by high flows of vehicles. This is particularly the case along the A14.

Figure 3.5. Traffic-related Air Quality Management Areas in Cambridgeshire

AQMA Area	Year Declared	Pollutants	Main Source
Lynn Road, Wisbech	2006	NO_2	Vehicles
Central Huntingdon	2005	NO_2	Vehicles
Areas adjacent to A14 in Brampton, Hunts	2006	NO_2	Vehicles
High St.& New St., St. Neots, Hunts.	2005	NO_2	Vehicles
Areas along the A14 from Hemingford to Fenstanton	2006	NO_2	Vehicles
Areas adjacent to the A14 from Bar Hill to Milton	2008	NO_2, PM_{10}	Vehicles
Cambridge City Centre	2004	NO_2	Vehicles

At the time of preparing the second Local Transport Plan it was expected that technological improvements would result in lower vehicle emissions as newer vehicles penetrated the fleet and that as a consequence air quality would improve if vehicle numbers could be held. (The LTP indicator for the number of vehicles crossing the Cam screen line has shown that traffic within Cambridge has been kept at similar levels since 2005.) However, PM_{10} particulate matter and nitrogen dioxide have remained high and NO_2 is the main air pollutant of concern in Cambridgeshire AQMAs.

This trend is apparent across the country. According to DEFRA (2010)[12], recent analyses of historical monitoring data have identified a disparity between the measured concentrations and the projected decline in concentrations associated with the emissions forecasts. Trends in ambient concentrations of NO_x and NO_2 in the UK have shown a period of fairly stable concentrations from 2002-2004 up until 2009 at both urban roadside and urban background sites.

At monitoring sites close to motorways and dual carriageways, there is evidence that NO_x concentrations have fallen at some, but not all locations, while NO_2 concentrations have levelled off.

The reason for this is not fully understood, and is currently under investigation, but it is thought to be related to the actual on-road performance of diesel road vehicles when compared with calculations based on the Euro standards. Preliminary studies suggest that NO_x emissions from diesel cars, under urban driving conditions, do not appear to have declined substantially, up to and including Euro 5. There is limited evidence that the same pattern may occur for motorway driving conditions and that NO_x emissions from HCV vehicles equipped with Selective Catalytic Reduction

[12] http://laqm2.defra.gov.uk/FAQs/index.htm

technology are much higher than expected when driving at low speeds. Therefore, it could be expected that the forecast reductions in emissions are optimistic and cannot be relied upon to provide air quality improvements. Indeed, DEFRA has stated that preliminary findings would suggest that the Euro standards will deliver only marginal, if any, reductions in NO_x and NO_2 concentrations until the Euro 6 emission standards begin, as is currently forecast, to play a major role (*circa* post-2015).

For this reason, it is vitally important to set out proposals in the LTP that will create conditions to promote changes in travel behaviour and use of cleaner vehicles so that areas of the county, particularly those with designated AQMAs, will not continue to experience poor air quality. This is particularly important given the ongoing population growth and potential for traffic growth if not addressed.

Priority should be given to a reduction in vehicle miles by moving journeys to sustainable modes such as walking, cycling and public transport. This alone will not solve the problem entirely and so there is also a need to improve the vehicle fleet in terms of polluting emissions. This is most important for PSV in Cambridge City Centre and for HCV on the A14 Corridor.

Issue - noise

Noise is a common irritant arising from transport, and studies have shown it to have negative direct and indirect effects on health, well-being, quality of life and wildlife. There is scope for transport's noise emissions to be reduced, by cutting the number of cars on the road, low-noise road surfacing, noise barriers, and many other measures.

In response to **EU directive 2002/49/EC**, the government implemented the Environmental Noise (England) Regulations 2006. These regulations deem highway authorities to be "noisemaking authorities" in agglomerations of more than 250,000 people or roads which carry more than six million journeys per year. In Cambridgeshire, this applies particularly to the A14, but also to other busy county roads such as the M11. Under these regulations, the noisemaking authority is responsible for informing DEFRA's 'Noise Action Plans' to reduce the noise emitted along these roads. In future, these regulations will apply to Cambridge too. This clarifies that Cambridgeshire County Council is responsible for devising measures to reduce the noise created by transport in these areas. An opportunity is presented by these Noise Action Plans to reduce noise from transport in the most severely affected areas.

Issue – landscape, biodiversity, geodiversity, heritage and historic environment

The natural environment is a very wide term which incorporates green infrastructure, landscape, biodiversity and the historic environment. Green infrastructure is defined as a network of multi-functional green space, both new and existing, both rural and urban, which supports the natural and ecological processes and is integral to the health and quality of life of sustainable communities. Ensuring that new transport infrastructure and new development contributes to Cambridgeshire's green infrastructure provision can be a challenge, but one which the Council is committed to meeting through the **Green Infrastructure Strategy** 2006 and the new strategy, due for completion in 2011. Green infrastructure offers the opportunity to promote more environmentally sustainable forms of travel by creating new networks for walking and cycling, encouraging people away from busy routes and enhancing access to greenspaces. There are also the associated benefits of reduced noise levels, improved air quality and reduced impacts on biodiversity and the historic environment.

Cambridgeshire has a wide range of landscapes but no Areas of Outstanding Natural Beauty. It does however have a number of sites of international, national and local importance for nature conservation, which are designated for their biodiversity or geological interest. Currently, these include:

- 5 Ramsar sites
- 6 Special Areas of Conservation
- 2 Special Protection Areas
- 87 Sites of Special Scientific Interest
- 6 National Nature Reserves
- 1 Regionally Important Geological/Geomorphological Sites
- 362 County Wildlife Sites
- 51 City Wildlife Sites
- 69 Protected Road Verges
- 329 scheduled monuments
- 8340 listed buildings
- 190 conservation areas
- 35 Registered Parks & Gardens
- Over 30 museums, including some of international standing

Cambridgeshire also provides 21 Local Nature Reserves and supports a range of habitats and species that have been identified as being of principal importance for the conservation of biodiversity in England.

A number of the sites and habitats mentioned above can be found along the roads network (e.g. Protected Road Verges and chalk grassland) and are likely to be affected by road enhancement works. Therefore, it is important for the Local Transport Plan to have regard for these sites/habitats/species, in order to fulfil the Council's duty under the **Conservation of Habitats and Species Regulations 2010** and **Natural Environmental and Rural Communities Act 2006** and adhere to the guidance of **Planning Policy Statement 9** and the **Natural Environment Research Council**. Nonetheless, transport schemes can also provide an excellent opportunity to protect and enhance the area for nature conservation and contribute to Cambridgeshire and Peterborough Biodiversity Action Plan targets for protecting and enhancing nature conservation.

Cambridgeshire also has a rich and varied heritage and historic environment, with a wide range of nationally and regionally important sites, many of which are accessible to the public, either through public transport, walking, cycling or driving. These range from major sites such as Devil's Dyke, Wandlebury Ring and Clopton Deserted Medieval Village, through to moated manor sites, castles, historic town centres, churches and also the broader landscapes such as the Fen drainage area. Ensuring that people and communities can access and gain benefit from the built and buried historic environment needs to be considered in this LTP whilst adhering to guidance set out in **PPS5: Planning for the Historic Environment.**

Challenges for the strategy

The challenges we face in reducing carbon emissions are inextricably linked to those for reducing congestion, hence many of the challenges listed below have also been identified elsewhere. Challenges related to protecting and enhancing the environment are clearly linked to those related to quality of life.

- Reducing the length of commute and the need to travel by private car.
- Making sustainable modes of transport a viable and attractive alternative to the private car.
- Influencing national and local decisions on land-use and transport planning that impact on routes through Cambridgeshire.
- Protecting and enhancing the natural environment by minimising the environmental impact of transport.
- Future-proofing our maintenance strategy and new transport infrastructure to cope with the effects of climate change.

Conclusion

This Chapter identifies a range of transport challenges in Cambridgeshire relating to the strategic objectives of the County Council. These are:

- **Challenge 1:** Improving the reliability of journey times by managing demand for road space and maximising the capacity and efficiency of the existing network
- **Challenge 2:** Reducing the length of commute and the need to travel by private car
- **Challenge 3:** Making sustainable modes of transport a viable and attractive alternative to the private car.
- **Challenge 4:** Future-proofing our maintenance strategy and new transport infrastructure to cope with the effects of climate change.
- **Challenge 5:** Ensuring people - especially those at particular risk of social exclusion - can access the services they need within reasonable time, cost and effort wherever they live in the county.
- **Challenge 6:** Addressing the main causes of road accidents in Cambridgeshire.
- **Challenge 7:** Protecting and enhancing the natural environment by minimising the environmental impact of transport.
- **Challenge 8:** Influencing national and local decisions on land-use and transport planning that impact on routes through Cambridgeshire.

Some of these challenges can directly be influenced by strategies in this plan. Others depend in part on wider decisions made at both a national and local level, particularly those linked to land use planning policies and decisions. All the challenges however will require a strong partnership approach to find solutions. We have many opportunities to tackle these problems and to positively contribute to each of our goals, improving many aspects of life in Cambridgeshire. The challenges identified in this chapter will form the basis of our LTP strategy.

Chapter 4 details the strategies that the County Council and its partners will use to meet these challenges.

4. Strategy – Meeting the Challenges

Introduction

This chapter sets out our overarching transport strategy for Cambridgeshire. It details the key challenges the strategy aims to address and demonstrates how improving quality of life, the environment and the economy are at the heart of our strategy.

Our overarching strategy

This LTP sets out the transport strategy for Cambridgeshire to 2026. It has been developed using a variety of evidence and has been informed by consultation. It replaces the **Long Term Transport Strategy** which was developed as part of **LTP2**, and largely focussed on Cambridge. It aims to address the challenges identified in Chapter 3. The implementation of this strategy will contribute towards the achievement of the Council's Strategic Objectives and will help to create communities where people want to live and work; now and in the future. While the strategy aims to address existing transport problems, it is closely integrated with the development strategy for Cambridgeshire thereby reflecting the transport needs of new communities.

As detailed in **Chapter 1**, we do not have funding allocated to all the measures set out in the Plan. However, in our strategy we have set out the improvements that are needed and what we want to achieve over the next 15 years. This will assist us in securing funding from other sources such as developers and the Local Sustainable Transport Fund which will be used to fund measures set out in this Plan.

To achieve our objectives the strategy uses two main tools:

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

As Cambridgeshire is a very diverse county, these tools will be applied differently depending on the area under consideration. The basis of the strategy is to adopt complementary approaches to the achievement of our objectives and the Cambridgeshire Vision. Our strategy is based on the need to deliver low cost, high value measures wherever possible in order to ensure the best value for money. The strategy recognises that some large-scale schemes will still be needed, however, these are unlikely to be funded in full using LTP monies or delivered in the short-term.

We will widen choice by encouraging more sustainable and environmentally friendly forms of transport including walking, cycling and public transport and will make it easier for people to interchange between different modes of transport. We will work with the district councils to reduce levels of air pollution to meet national air quality objectives and raise awareness about the different transport choices available to people. The strategy also focuses on a wide range of smarter choices including workplace and residential travel planning, raising awareness of the different transport choices available to people, and promoting car sharing and car clubs. Furthermore, our strategy aims to protect the environment by considering environmental issues at an early stage of scheme planning, and developing schemes that specifically improve the environment.

We will manage demand by using Intelligent Transport Systems to manage traffic and make the network run more efficiently. We will also apply parking controls or charges where appropriate to help reduce congestion and carbon, and encourage wider use of sustainable modes of transport. In addition, we will investigate opportunities for reallocation of roadspace and introduce measures to tackle congestion at the worst bottlenecks. In Cambridge, we will investigate the potential to further expand the Cambridge Core Traffic Scheme as appropriate. We will also improve enforcement of existing traffic and parking restrictions to enhance the flow of traffic.

Figure 4.1. Summary of the LTP strategy

Challenge	Our Strategy
Challenge 1: Improving the reliability of journey times by managing demand for road space and maximising the capacity and efficiency of the existing network	• Utilise Intelligent Transport Systems to better manage our transport network and thereby improve the reliability of journey times. • Investigate the potential for demand management measures where these can help to improve conditions for sustainable modes of transport and maximise the capacity of the network. • Support measures which encourage more freight onto rail and work with freight operators to promote the use of the most appropriate routes for road freight. • Maintain the transport network to facilitate the efficient and safe movement of traffic.
Challenge 2: Reducing the length of the commute and the need to travel by private car	• Support the development strategy for Cambridgeshire by aiming to reduce the need to travel and by providing sustainable travel options for new developments. • Focus on securing school, workplace and residential travel plans and support and encourage employers to adopt smarter choices measures to help reduce the need to travel. • Support and encourage journey planning tools to improve information available for journeys by sustainable modes.
Challenge 3: Making sustainable modes of transport a viable and attractive alternative to the private car	• Make sustainable modes of transport more attractive by developing walking and cycling networks. • Make it easier for people to change between modes of transport. Work with bus operators to provide high quality bus services. • Improve the environment and safety of pedestrians, cyclists and public transport users. Focus on raising awareness of available transport choices, and the health and environmental benefits of cycling and walking. • Work with local planning authorities to ensure facilities for sustainable modes form an integral part of new development.
Challenge 4: Future-proofing our maintenance strategy and new transport infrastructure to cope with the effects of climate change	• Use a risk management approach to help determine priority areas for adapting to climate change and focus delivery of our adaptation action plan. • Take account of the projected impacts of climate change at the scheme design stage, making use of emerging technologies as they become available. • Build new infrastructure to the latest standards for withstanding the impacts of climate change.
Challenge 5: Ensuring people – especially those at risk of social exclusion – can access the services they need within reasonable time, cost and effort wherever they live in the county	• Focus on access to key services in the nearest main service centre, e.g. large village or market town. • Consider the whole journey, including the interaction between different modes of transport, aiming to provide suitable transport provision for necessary journeys. • Continue to support the development of community transport and investigate alternative forms of public transport where traditional bus services do not meet people's needs. • Work with service providers to innovate in the way services are delivered locally.
Challenge 6: Addressing the main causes of road accidents in Cambridgeshire	• Focus on education, training and publicity to improve road user behaviour, particularly targeting young drivers and riders, users of rural roads and children. • Progress our programme of measures aimed at reducing casualties at accident cluster sites that will give the highest casualty reduction. • Work with the police and other agencies through the Cambridge and Peterborough Road Safety Partnership.

Challenge	Our Strategy
Challenge 7: Protecting and enhancing the natural environment by minimising the environmental impact of transport	• Focus on working with the district councils to reduce levels of air pollution in order to meet national objectives. • Manage and reduce levels of vehicle emissions and encouraging increased usage of sustainable modes of transport. • Investigate the use of new technologies as they become available. • Environmental issues such as biodiversity, noise and impacts on the landscape will be considered at the design stage of transport projects. • Support the provision of green infrastructure. • Reduce carbon emissions through a programme of smarter choices measures, improvements to sustainable travel options and the management of car use.
Challenge 8: Influencing national and local decisions on land-use and transport planning that impact on routes through Cambridgeshire	• Reflect national policies in the Local Transport Plan and in our policies and strategies. • Continue to lobby for rail passenger infrastructure and service improvements. • Support the increased use of rail freight to take pressure off the road network and improve the environmental sustainability of longer distance freight movements, and the delivery of the infrastructure necessary to facilitate this. • Continue to lobby for necessary improvements to the A14 trunk road, and for other improvements to the Motorway and Trunk Road networks where they are necessary to meet local objectives and to support growth in Cambridgeshire.

Combined, these approaches will help to tackle climate change and enhance the economy, while also addressing our other objectives. The strategy will need to strike a balance between enabling economic growth and tackling climate change.

Figure 4.1 summarises our strategy under each challenge.

While aiming to address all the challenges we have identified, the main focus of our strategy will be on measures and initiatives that maintain and enhance the economy and also those that tackle climate change. This reflects both the outcomes from public and stakeholder consultation as well as the direction of national transport policy. However, the strategy recognises the need to balance economic growth with the need to tackle climate change. It should be noted that many of the strategy areas will be part of the solution for more than one challenge. Where this is the case we have cross referenced and included links to other relevant parts of the document and more detailed strategies such as market town transport strategies.

User hierarchy

The user hierarchy matrix reflects Manual for Streets 1 and 2 and is shown in **Figure 4.2**. It will be used as a guide for setting priorities and allocating funding towards programme areas and schemes. The hierarchy will be applied to the development and review of specific transport strategies such as the Market Town Transport Strategies and the Cambridge Area Transport Strategy. The principles of Manual for Streets will also be applied to scheme design and implementation.

Figure 4.2. User hierarchy

Our Strategy
Pedestrians
Cyclists
Public transport
Specialist service vehicles (e.g. emergency services, waste collection, disabled drivers)
Other motor vehicles

Road hierarchy

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.

We will use this approach to help determine our road maintenance programme for principal roads, as roads with higher traffic flows will deteriorate faster than those with 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 for local communities.

The challenges

This chapter sets out the challenges for transport that we have identified to meet each of our strategic objectives, the linkages between which are summarised in **Figure 4.3**.

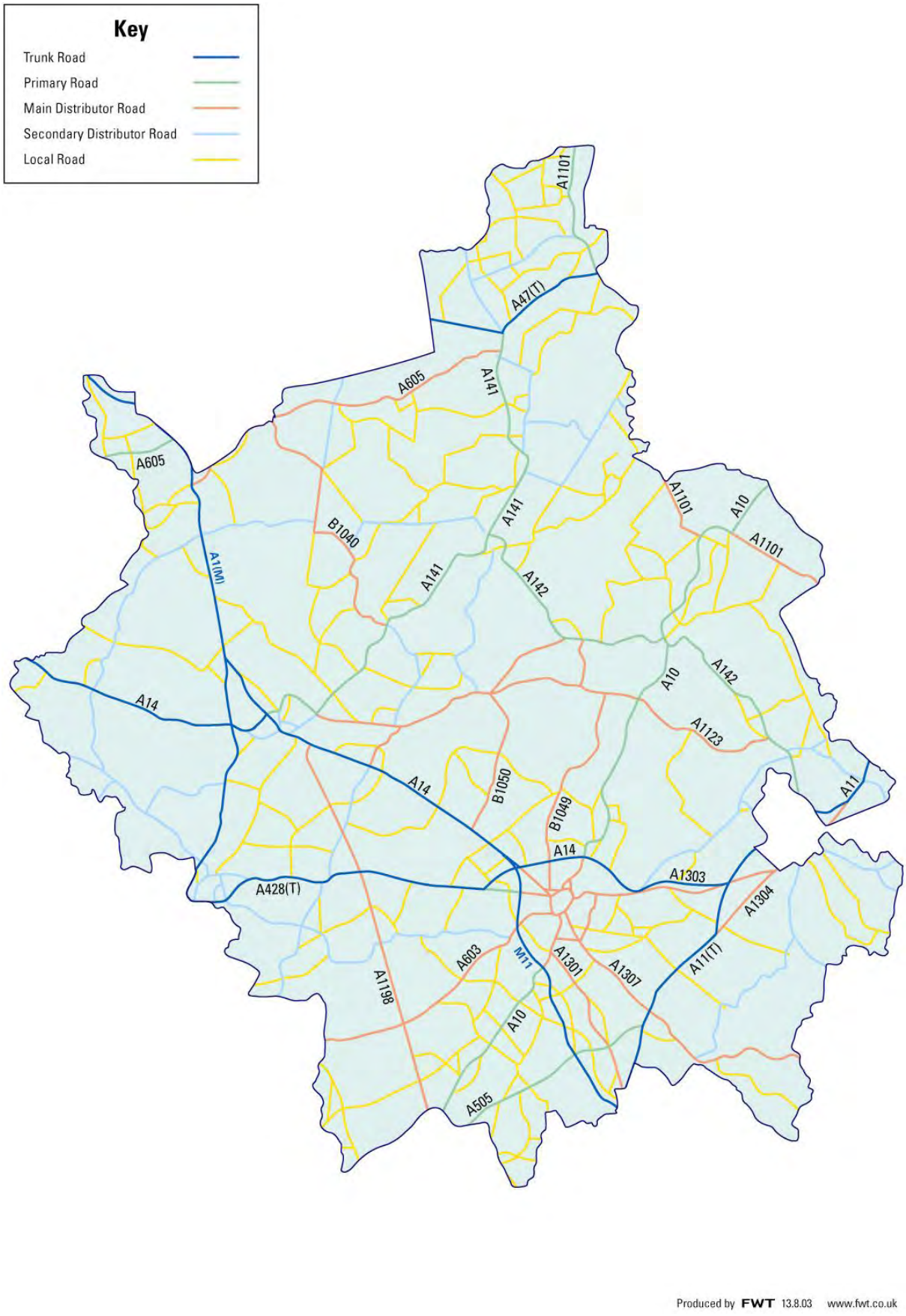
Figure 4.3. Challenges to meet our Strategic Objectives

LTP Challenge	Strategic Objectives*			
	1 & 4	2	3	5
Challenge 1: Improving the reliability of journey times by managing demand for road space and maximising the capacity and efficiency of the existing network			✓	
Challenge 2: Reducing the length of commute and the need to travel by private car	✓		✓	✓
Challenge 3: Making sustainable modes of transport a viable and attractive alternative to the private car	✓	✓	✓	✓
Challenge 4: Future-proofing our maintenance strategy and new transport infrastructure to cope with the effects of climate change				✓
Challenge 5: Ensuring people - especially those at particular risk of social exclusion - can access the services they need within reasonable time, cost and effort wherever they live in the county.	✓	✓		
Challenge 6: Addressing the main causes of road accidents in Cambridgeshire	✓	✓		
Challenge 7: Protecting and enhancing our natural environment				✓
Challenge 8: Influencing national and local decisions on land-use and transport planning that impact on routes through Cambridgeshire			✓	✓

* Strategic Objectives

1. Enabling people to thrive, achieve their potential and improve their quality of life
2. Supporting and protecting vulnerable people.
3. Managing and delivering the growth and development of sustainable communities.
4. Promoting improved skill levels and economic prosperity across the county, helping people into jobs and encouraging enterprise.
5. Meeting the challenges of climate change and enhancing the natural environment.

Figure 4.4. Cambridgeshire Road hierarchy



Funding challenge

As set out earlier in the Plan, the current economic and financial climate is extremely challenging. Central and local government are facing substantial budget reductions over the coming years, which will have a considerable impact on the availability of funding to implement the measures in our Plan, particularly in the short term. While we will endeavour to secure best value for money from the schemes we implement, our ability to deliver large numbers of schemes using local / central government funds is likely to be greatly reduced. To help address this reduction in government funding it will be essential that we continue to secure additional funds from developers through Section 106 Agreements, Corridor Area Transport Plan contributions and in the future, the emerging Community Infrastructure Levy and future variable rate tariffs as set out in the White Paper: ***Local growth: realising every place's potential***. In addition, we will take any opportunities which arise to bid for additional funding for transport such as through the new Sustainable Transport Fund or Regional Growth Fund.

Our Implementation Plan will set out how we will spend our funding for 2011/12 and will reflect our priorities as outlined above. Our programme for the following years will be published at a later date. As set out in **Chapter 1**, we will not be able to deliver all of the measures in this strategy. However, the following sections set out the schemes and initiatives we would like to introduce over the next fifteen years.

Challenge 1: Improving the reliability of journey times by managing demand for road space and maximising capacity and efficiency of the existing network

Vision

That we maintain and utilise our existing transport network to its maximum capacity, by efficiently managing its use by all modes. We want users to be able to rely on expected journey times, and if there is a problem, for example congestion, to have information about the transport choices open to them, particularly sustainable alternatives.

Barriers

- Volume of traffic and increasing traffic levels countywide
- Inappropriately and illegally parked vehicles blocking the highway
- Capacity issues at certain junctions and along certain stretches of road
- Unnecessary through traffic in Cambridge and the market towns
- Buses spending a long time at bus stops on the highway
- Lack of reliable information informing people about problems
- Over reliance on road transport for the movement of freight

What we will do to overcome these barriers

- Introduce further demand management measures
- Use Intelligent Transport Systems to actively manage traffic and make more efficient use of existing assets
- Develop and keep under review transport strategies for the Market Towns and Cambridge
- Encourage more freight onto rail and the use of appropriate routes for road freight
- Keep our network safe and operational through the timely maintenance of our transport network

Other policies and initiatives that impact on this challenge

- ITS technology improvements
- National transport policies on demand management
- Bus legislation – future role of traffic commissioners

Background

Congestion and the effect that it has on the reliability of journey times is a problem that impacts on the attractiveness of our county to live in. The south of the county is particularly susceptible to the problems that congestion can cause and this is a concern for the continued buoyancy of the local economy in terms of attracting new businesses to the area.

In many cases congestion is caused by the sheer volume of traffic, for example on the A14; and on the radial routes into Cambridge. To address this needs a high level approach. Much of the traffic on the A14 for example is caused by land-use and transport decisions taken at a national level and as such the problem cannot be solved by the local authority alone. Details of how we intend to make environmentally sustainable modes of transport a more viable and attractive option are detailed elsewhere in this strategy and this will help to relieve some of the problems caused by the volume of traffic on our network.

This section sets out the broad principles that we will use over the lifetime of this Local Transport Plan to make journey times more reliable and predictable, and how we will make the most efficient use of road space to maximise capacity and efficiency of the network. It also sets out our strategy for maintaining the transport network.

Introduce further demand management measures

Providing better and more environmentally sustainable transport alternatives will not of itself reduce congestion sufficiently. Whilst very important, these measures need to be combined with effective demand management techniques to have a notable effect. There are a number of different tools that can be used to make sure we make the most efficient use of our road space and the right approach needs to be selected for the right area. For example, more extreme measures will be needed in Cambridge than will be needed in the market towns. Demand management measures can be divided into two groups:

- Fiscal measures (e.g. parking charges, tolls, congestion charge)
- Non-fiscal measures (e.g. physical restrictions, reallocation of road space)

Parking

Different aspects of parking control are the responsibility of different authorities across the county. The County Council is responsible for on-street parking whereas, where relevant, the District Councils are responsible for off-street parking, i.e. car parks.

There is a wide variation in parking charges across the county, from being extremely high in the central Cambridge car parks to free in some of the district-run car parks. On-street parking charges also vary across Cambridgeshire. In line with our aspiration to expand Civil Parking Enforcement (CPE) across the county (see later section), we also need to develop a joint approach to parking management across the County, to pave the way for this. The wider provision of parking charges may need to be a pre-requisite to the wider application of CPE. Therefore, working in partnership with the district councils, this will be another element of our strategy.

Physical restraint

Physically restraining traffic from certain areas or roads is another tool we can use to better manage the demand for roadspace. In Cambridge we have been doing this for nearly a decade through the phased introduction of the Core Traffic Scheme. Through traffic has been gradually restricted from entering the city centre through the use of rising bollards at various locations. This approach has proved to be highly successful; against a background of continuing demand for trips into the city, the amount of traffic actually entering the city centre has stayed constant for some years. It has also ensured that greater consideration has been given to the needs of buses, cyclists and pedestrians in the city centre. As growth continues to put pressure on the city, further demand management measures will be needed and we may explore the application of the principles of the Core Traffic Scheme over a wider area.

In the market towns, the problems are not as acute as in Cambridge, however as they continue to accommodate growth, there may be a need to introduce some form of physical restraint in these areas too. As the Market Town Transport Strategies are reviewed, we will consider each town on an individual basis and if appropriate will investigate the potential to restrain traffic from certain roads and areas.

Reallocation of road space

On roads where there is conflicting demand for space, we can give priority to certain road users by reallocating space to them. For example, in a particularly congested area we can introduce a bus lane to help give priority to buses which makes it become more attractive as passengers can see

they are getting through traffic more quickly than if they were travelling by car. Likewise, we can give priority to cyclists, for example on a road where safety is an issue, by introducing segregated cycle lanes, making roads one-way or pedestrian/cycle access only. This sends a clear message about who we want to give priority to in different locations and also helps us to address the challenge of making sustainable modes of transport more attractive.

Through the development of the Cambridge Area Transport Strategy and the review of the Market Town Transport Strategies, we will identify locations where we wish to allocate road space to specific users and seek to implement them over the lifetime of the LTP.

Better enforcement of existing restrictions

Many of the problems that cause congestion and air pollution on our network are caused by vehicles contravening existing traffic orders and hindering the free flow of traffic. Traditionally the police have been responsible for the enforcement of traffic orders, making contravention a 'criminal' offence. However, local authorities now have the powers to undertake Civil Parking Enforcement (CPE) which decriminalise parking offences by making them a civil contravention. This enables local authorities to concentrate on encouraging and influencing motorist behaviour towards considerate and compliant parking, in order to address particular 'hotspots' in their area.

CPE was introduced in Cambridge in 2004 and its key objective is to keep Cambridge moving through improving:

- Compliance with parking regulations
- Appropriate use of designated parking spaces, including disabled bays, taxi ranks, loading bays and resident parking spaces
- Improving emergency vehicle access
- Links to integrated transport strategies and policies

CPE does not currently exist elsewhere in the county. However it is an aspiration that a countywide scheme is drawn up in partnership with the District Councils so that a consistent approach to parking enforcement can be taken. However, for such a scheme to work both on-street and off-street charges may need to be in place which is not the case in all districts at the moment. The previous section outlines the plans for parking charges.

Utilise Intelligent Transport Systems to make more efficient use of existing assets and inform travellers of problems

The use of technology to help manage our network and make it work more efficiently is key to making better use of our existing assets. The data collected can be used in two ways; to make the network run more efficiently and to inform the travelling public.

Technology is already playing a role across the county. Real Time Passenger Information (RTPI) has been rolled-out across many bus services over the last few years. It lets passengers know when the next bus is scheduled to arrive and how long they have to wait. Variable message signs (VMS) have been installed on the key radial routes into Cambridge and give drivers information about Park & Ride space availability and which car parks have spaces as well as road safety messages. On-line tools include the 'Where's my bus' facility and also the ELGIN mapping tool which allows the public to view all streetworks which may affect their journeys and therefore plan alternative routes in advance.

Making the network run more efficiently

The key to being able to make more efficient use of our network is the quality and quantity of data that we have about the network in real-time and most importantly how we process and then use this data to react to incidents on the network.

We have recently implemented an Integrated Highways Management Centre to bring together the existing technologies used to manage the network, such as Real Time Passenger Information (RTPI), Global Positioning Systems (GPS) such as fleet vehicle tracker systems and mobile telephones, Variable Message Signing Systems (VMS), the traffic signal Urban Traffic Control System (UTC), automated traffic signal bus priority, Automatic Number Plate Recognition (ANPR), rising bollards and CCTV together with a number of external data/information sources. The various systems have been linked together through the use of a Common Database, which has allowed traffic engineers to start understanding the complexities of the causes of problems on the network. This is helping to build up a picture of what are 'normal' conditions on our road network so that as additional functionality is developed in the future, we can use the data to quickly identify when a problem arises and take action to do something about it. This will enable us to predict when congestion and other issues may arise and to proactively minimise their effects.

Good practice: sharing resources

Cambridgeshire County Council leads a partnership with Peterborough City Council and Cambridgeshire Constabulary to share information that is captured by Automatic Number Plate Recognition cameras. The cameras are primarily used by the local authorities to capture real time information on vehicle journey times which helps increase the information that the local authorities have about how the network is running. The police host the back-office systems and anonymise the data that is then sent to the two local highway authorities for use in running their networks more efficiently. The Police use the unanonymised data for intelligence purposes.

Helping the travelling public predict and plan their journeys

Understanding what is happening on the network is one major use for the information that we have; the other aspect is imparting this information to the travelling public, either through the use of journey planning tools or through other means such as RTPI or VMS.

Providing the public with the tools that they need to make informed choices on their journey before they leave their house or place of work can help to overcome some of the barriers that prevent people from using sustainable modes of transport. During the lifetime of LTP2, we continued to support and promote the national journey planner **www.transportdirect.info** and use the data on its website through the on-line journey planner on our own website. This gives information on the whole journey, including how to get to the nearest bus stop or railway station. The tool is further enhanced through the use of **Walkit.com**, a route planning tool specifically for pedestrians travelling in and around Cambridge. The website provides detailed information and maps showing walking routes between origin and destination points in Cambridge and can inform the user about journey length, estimated journey time, calories burned, CO_2 saved, and suggested routes with more favourable air quality. We will continue to promote these tools throughout the lifetime of LTP3.

Variable Message Signs (VMS) provide us with a flexible, reliable means of informing travellers of problems on the network once they are actually en route. Currently we use them in Cambridge to inform car drivers how many spaces are left at the park and ride sites and at city centre car parks. However, we would like to roll out their use further on roads across the county where we know that we get recurrent problems, for example at sites that flood regularly. By installing VMS at the point of decision – i.e. where vehicles are diverted - we can manage the network better when incidents like this occur.

RTPI has provided a step change in the way that bus information is displayed. Nearly all buses in the county are now RTPI enabled, although many of the bus stops still do not have the electronic flags displaying RTPI information. Subject to the availability of funding, we will concentrate on providing electronic flags at bus stops in the main urban areas and the corridors between them, where there are greater opportunities for modal shift and more bus services passing through individual bus stops. This does not mean it is any less important for bus stops in rural areas to have good, real-time information however. What it does mean is that we need to have a different

approach to providing information in these areas such as greater promotion of mobile phone applications and text messaging and ensuring that the necessary information to use these is available at bus stops.

Develop and keep under review transport strategies for the Market Towns and Cambridge

Market Town Transport Strategies

Market Town Transport Strategies have been a key element of previous Local Transport Plans and have provided a comprehensive programme of measures to address specific transport problems that have been identified in the towns.[13] Whittlesey is the final market town in Cambridgeshire for which a strategy needs to be developed and work on this began in the autumn of 2010. **Figure 4.5** shows the development timetable for these strategies. The existing market town transport strategies will all be reviewed on a rolling basis to ensure that they remain up to date. They will consider the detail of many of the demand management principles outlined in this section, as well as many other areas of this strategy, particularly sustainable transport and road safety.

Figure 4.5. Market Town Transport Strategies

Town	Date adopted	Review timetable*
Ely	February 2002 1st review December 2008	Late 2012
St Neots	February 2002 1st review September 2008	Late 2012
March	February 2002	Spring 2011
Huntingdon and Godmanchester	June 2003	Spring – Autumn 2011*
Wisbech	June 2003	Commenced Autumn 2010
St Ives	September 2006	Mid 2012
Ramsey	April 2010	Post 2012
Chatteris	June 2010	Post 2012
Whittlesey	Strategy development commenced Autumn 2010	

*dependent on available resources

Cambridge Area Transport Strategy

A new transport strategy for Cambridge (the Cambridge Area Transport Strategy) is currently under development, and will set out how we intend to accommodate the growth that is planned for the city and surrounding area, and the transport improvements that are needed. It takes forward the principles of the **Long Term Transport Strategy** which was developed as part of **LTP2**, and regardless of the **Transport Innovation Fund programme** being cancelled by the previous government on 2 March 2010, will build on the work undertaken as part of this programme. The LTTS concluded that even with significant improvements to environmentally sustainable modes of transport such as buses, cycling and walking, they would not on their own stop the number of trips made by car in Cambridge increasing when the effects of planned growth are taken into account. A reduction or even stability in vehicle trips would only occur if some form of demand management was coupled with the transport improvements. The strategy will therefore be considering what the most appropriate way will be of doing this for the city. The strategy will also be important as a

[13] Existing Market Town Transport Strategies can be viewed at http://www.cambridgeshire.gov.uk/transport/strategies/market_town/

mechanism for securing funding towards transport improvements from future funding streams. It is important given the development pressures that are building up, to have a robust transport strategy that can assess these correctly.

Members have agreed the following objectives and desired outcomes for the strategy:

- Enhanced accessibility to and within the city.
- Improved air quality and environment in the city centre.
- Reduced Greenhouse Gas emissions.
- Provision of attractive, sustainable alternatives to the use of the private car.
- Provision of the transport capacity needed to cater for planned growth.
- An effectively managed transport network that supports the economy.

Encourage more freight onto rail and the use of appropriate routes for road freight

The efficient movement of road and rail freight is essential to our economy and prosperity, with the demand for goods continuing to increase over the next 20-30 years. This will lead to increased freight traffic, which is predicted to quadruple by 2030.

This increase will need to be accommodated while minimising its impact on the transport network and local communities. At present the estimated cost of freight on the A14 is £80 million each year. Congestion and quality of life issues such as road safety, noise, climate change and greenhouse gas emissions also need to be considered when planning for the movement and management of freight.

Road freight

Freight routeing

We have developed and, following wide consultation, are finalising an advisory freight map for the county that will be provided to freight operators and also be made available on our website. The advisory freight map aims to reconcile the needs of local communities and lorry operators, and we hope to better manage Heavy Commercial Vehicle (HCV) traffic by giving freight companies the Highway Authority's preferred routes to consider, when planning their journeys. The draft map can be viewed on **our website**.

Freight in rural areas

Road freight and the use of inappropriate routes can have considerable impacts on villages in the county. For example, it can lead to localised congestion, noise and poor air quality, and can significantly impact on people's quality of life, health and well-being.

To help address these issues, the Council is working with County, District and Parish Councillors, neighbouring highway authorities, the Highways Agency, the Road Haulage Association and the Freight Transport Association to review the environmental weight limit policy as part of a wider review of lorry management. The review will ensure that the Policy is fit for purpose and capable of addressing local community concerns over the impact of lorry movements in a balanced way that does not jeopardise the growth agenda for the area and to reflect the resources that are likely to be available to manage lorry movements. The work will include a review of the approaches available for lorry management, the criteria for environmental weight limits, and the enforcement of lorry management.

In addition, as part of planning agreements we will work with operators to secure routing agreements to ensure freight operators are using the most appropriate routes for their journeys and minimising impacts on local communities. One example of such an agreement is the

agreement in place between the Council and Mick George Ltd. The agreement contains a commitment by the operators to re-route the majority of their HCVs to avoid the villages of Earith and Sutton, except for local deliveries and collections. In another case M Dickerson Ltd and Donarbon Ltd have advised that they have voluntarily re-routed some of their traffic away from two local communities where concerns had been raised. It is estimated that the agreement, together with decisions made by the two other companies will lead to:

- 200 fewer lorries in each direction per week in Sutton, Earith and Bluntisham as a result of re-routing by Mick George Ltd
- Around 80 fewer lorries per week using the A1421 / A1123 in Haddenham and Wilburton as a result of re-routing by M Dickerson Ltd
- Some 200 fewer vehicles per week travelling through Wilburton and Haddenham as a result of re-routing by Donarbon Ltd
- Provision of new advisory HCV signage on certain routes

The Council will continue to seek opportunities in liaison with the haulage industry to minimise impacts of HCV traffic on local communities.

As part of the Cambridgeshire Freight Quality Partnership, the County Council operates a **Lorry Watch** scheme in selected areas. This empowers local communities by providing local residents with the opportunity to report examples of inappropriate driving of HCV's to us via a local co-ordinator. This type of approach allows us to work in partnership with the community to jointly combat concerns regarding illegal lorry movements.

Working with the Highways Agency, we are also exploring the possibility of providing more secure overnight parking facilities along the A14 to reduce the numbers of drivers driving further when tired and parking inappropriately in villages.

Rail Freight

Rail freight is a much more sustainable way of moving goods than road freight and also has benefits in terms of climate change and road safety. The Council strongly supports increasing the amount of freight transported via rail. The Cambridgeshire and Peterborough Rail Group, consisting of the District Councils, the County Council and Peterborough City Council, lobbies Network Rail with regard to freight issues and comments on national rail policies and plans. Through it we continue to encourage rail freight and the shift from road to rail wherever possible.

Nationally there is a desire to see such a move. Phase 1 of the Freight Modal Choice Study by DfT was completed in April 2010. This study confirms the economic, social and environmental benefits of current freight movements by non-road modes on national network corridors and considers the capacity and capability of the national infrastructure to accommodate these changes in modal choice.

The Network Rail Freight Route Utilisation Strategy (March 2007) predicts 64% growth for rail freight between 2007 and 2017. This growth is predicted across all types of commodities although the greatest increase in growth is expected to be to and from deep sea ports such as Felixstowe. Plans for a £53 million rail investment in the Anglian region alone, should take 750,000 lorry journeys off the road each year. The proposed Magna Park, a rail based logistics facility near Peterborough, will provide a system whereby freight can be offloaded and transferred from rail to road and vice versa, helping to increase the amount of freight carried by rail.

Felixstowe to Nuneaton – F2N

This investment, which will see the upgrading of the route from Felixstowe to Nuneaton via Ely, Peterborough and Leicester, will increase capacity between Ipswich and Peterborough. The Felixstowe to Nuneaton corridor is a critical link in the national scheme of freight transportation as

Felixstowe port is the largest in the UK and one of the largest in Europe. Once complete the infrastructure improvements will provide a more direct route for freight trains travelling from Felixstowe to the Midlands, the Northwest and Scotland.

The predicted increased share of rail freight will help to reduce congestion on roads, particularly the A14, will improve road safety and reduce CO_2 emissions by around three-quarters. Such a modal shift of freight from road to rail will have significant implications both for rail freight and also for the roads and rail links within Cambridgeshire.

The infrastructure improvements will not remove any movements at the level crossing in Ely (A142) but will allow 775m long freight trains to pass each other on the new section of double track on the Ely - Soham line, rather than at Ely station. However this needs to be set in relation to the estimated 56 trains that will use the line each day, compared with 28 now.

County and District Councils have been working with Cambridgeshire Horizons and the Department for Transport on studies considering the impacts of growth in Ely and the infrastructure needed to cater for it. The A142 railway crossing has long been recognised as a constraint to growth. For the period of this LTP we will, through the Cambridgeshire and Peterborough Rail Group, continue to work with Network Rail, discussing implications of the planned level of freight services on traffic on the A142 and lobbying for funding commitments. We will also review the effectiveness, costs and benefits of a lower cost **Ely Southern Link Road**, of other possible road options, and alternative solutions.

We will also continue to engage with Network Rail and DfT in encouraging alternative routes to and from the east coast ports, particularly Felixstowe, and will also advocate the use of the proposed **Chesterton Interchange** for freight.

Keeping our network safe and operational

Maintaining the assets that form our transport network – roads, bridges, cycleways, footpaths, street lights, and road signs – is an essential part of our strategy to keep vehicles and people moving safely around the county, and it accounts for around half of our expenditure on transport.

As at 2010 we have:

- 212 km strategic routes
- 295 km main distributor roads
- 382 km secondary distributor roads
- 903 km local roads
- 2,463 km local access roads
- 1,798 road bridges and 2,200 Right of Way bridges
- More than 160 km of cycle routes
- 3,220 km of Rights of Way

The transport network also includes other assets, such as road signs, road markings, highway gullies, verges and trees.

Maintaining the assets to set standards reduces the risk of accidents being caused through defects. It therefore reduces the consequences of such accidents; both to human life and to the effect that accidents have on the network and congestion, and therefore the economy. The extent of our transport assets is extensive and as such demands on resources always outstrip what funding is available.

To make the best use of the resources we have, we are developing a Transport Asset Management Plan (TAMP), which is a formalised, strategic approach to long term planning for the maintenance of our transport assets. The basis of the TAMP is comprehensive, quality data on the condition of all our transport assets. This element of the TAMP is now largely complete.

This qualitative data will also inform the new requirements on financial management and reporting of all transport infrastructure assets, in accordance with the new CIPFA Code of Practice. The

intention is to develop a robust valuation of the transport asset to aid in long term financial planning and to help us allocate resource appropriately.

Our overall maintenance strategy

For the period of this LTP our strategy focuses on maintaining the current standard of the network. Gathering and interpreting reliable data on the condition of our transport assets is key to developing a strategy for maintaining them and to ensuring that resources are directed to the most appropriate areas. In the last few years, a considerable amount of work has been undertaken to compile an inventory of data relating to highway infrastructure and its condition. The continuing collection and updating of the data will provide the backbone to the development of the Transport Asset Management Plan and the valuation of the transport asset.

Further work is planned to continue to collect and expand our condition data for the wider transport assets. This will result in improved budget forecasting and programming and will help inform Members and stakeholders of the real level of funding required in order to maintain all transport assets.

The condition data will be used to prioritise maintenance schemes and draw up a three-year rolling Forward Work Programme for each type of area of maintenance activity. The standards and policies that we will use to interpret the condition data and prioritise schemes are set out in our **Highways Policies** document (which is reviewed on an annual basis) as well as our **Street Lighting Policy**. Examples of the types of activities included are:

- Carriageway maintenance: Resurfacing, patching and replacing damaged kerbs and renewing surface water systems.
- Bridge strengthening and structural maintenance: Reconstruction work and general maintenance of highway structures.
- Street lighting: Replacing street lighting columns that are at the end of their design life.

The schemes will then be scrutinised against each other to see where efficiencies can be made through programming schemes at the same time and the programme adjusted accordingly. Wherever possible, maintenance schemes will also be integrated with the implementation of new infrastructure schemes that are programmed, for example bus and cycle lanes. The result of this process will be a year-by-year programme which will

St Ives Flood Arches

The St Ives Flood Arches form a Grade II* listed 55-span viaduct carrying the C121 over the river Great Ouse flood plain. This forms a key link between the centre of St Ives, where The Busway commences, and the villages to the south. The St Ives Flood Arches are particularly important for pedestrians and cyclists, including a large number of school children. They provide vehicular access to a hotel and some residential properties and allow goods vehicles to exit the centre of St Ives via two routes rather than one. The emergency services also use this route to access the A14 and surrounding villages.

The structure is in a poor state and 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
- Removal of vehicle parking
- Widening of footways
- Provision of cycle lane

The refurbishment and strengthening work necessary for the historic 55 span viaduct would consume all of the resources required for the maintenance of the other County structures for many years, therefore in 2010 a rolling programme commenced to reduce the risk of closure of the route. This case study gives an example of the many demands that are placed on the resources we have and how we have to carefully consider how to allocate them.

be detailed annually in our **Network Service Plan**.

Street Lighting Private Finance Initiative (PFI)

In 2010 the Council agreed a street lighting PFI to replace approximately 44,000 of the 52,000 street lights, replace all the illuminated road signs with new or de illuminated road signs. Additionally it will replace all the illuminated bollards, to which the majority will be replaced with solar powered bollards. This investment provides an opportunity for old and inefficient street lighting to be replaced with modern and energy efficient lighting with good opportunities to make savings in its energy usage.

Major Scheme – A142 Ely Southern Link Road

An Ely Southern Link Road would reduce congestion on Angel Drove and Station Road, reduce journey times for through traffic and improve sustainable access to the Ely railway station area. It would also enable redevelopment of the Station Gateway area as envisaged in the Ely Masterplan.

Existing Situation

The City of Ely lies on the east-west A142 Primary Road between Newmarket and Chatteris. This road carries 15,000 vehicles per day, of which 1,200 are Heavy Commercial Vehicles (HCV's). The A142 passes under the Ely to Kings Lynn railway line via a low bridge with only 2.74m of clearance. HCV's have to use a level crossing immediately to the east of the under bridge.

The high frequency of trains frequently causes the HCV traffic to queue back onto the main carriageway when the barriers are closed, resulting in significant delays to all traffic, particularly at peak times. Work is currently underway to complete the upgrades of the Ipswich to Peterborough section of the Felixstowe to Nuneaton Strategic Freight Route. Once this is completed in 2014, it will provide a further fourteen extra paths for freight trains per day. The Train Operating Companies also have aspirations to increase the frequency of passenger services to Ipswich, Norwich and Stansted Airport. Additional trains will result in more and longer level crossing closures, thus increasing congestion and delays.

The railway under bridge and level crossing currently have the third highest vehicular strike rate in the country. Collisions with the bridge result in disruption to the railway and vehicular traffic, as it is necessary to close the railway to inspect the bridge after each reported strike. This costs Network Rail on average £100k per annum in repairs and delay. The high levels of HCV traffic over the level crossing means that routine maintenance costs are high.

Proposed Scheme

Consultation on options for the link road was undertaken in 2002. This informed the then preferred route for the link road as shown on **Figure 4.7**. This route would commence from a roundabout on the existing A142 Angel Drove east of its junction with the A10 and run eastwards to rejoin the A142 Stuntney Causeway at a roundabout south of its junction with Queen Adelaide Way. It would be 1.9km in length with a viaduct to cross the rail line and the River Great Ouse and its flood plain. The scheme cost estimate for the link on this route at 2009 prices is £28m.

Scheme Objectives

The Ely Southern Link Road would deliver the following:

- Reduced journey times on the A142 for longer distance traffic travelling between the A10 and A14 corridors.
- Reduced risk of delays to rail services.
- Reduced noise and improved air quality in the Station Road area of Ely.

- Reduced congestion in the vicinity of the rail station.
- Reduced risk of vehicle strikes at the rail bridge and level crossing.
- Improved accessibility to the station for all transport modes, especially pedestrians and cyclists.
- Reduced accidents.
- Reduced delays to bus services between Ely and Newmarket.

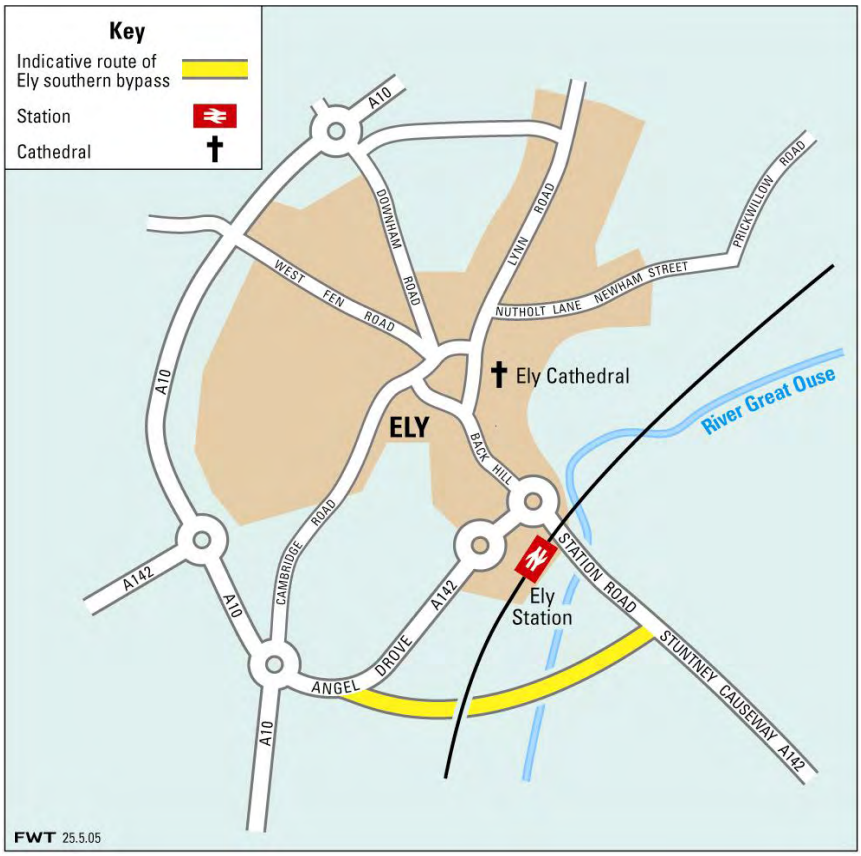
Impact of scheme on LTP Objectives

Figure 4.6. Impacts of Ely Southern Link Road

LTP3 Objective	Impact	Description
Managing and delivering growth	Positive	• Sustainable access to station area and reduced highway delays are key to expansion plans for Ely
Promoting improved skill levels and economic prosperity across the county, helping people into jobs and encouraging enterprise	Positive	• Improved journey time reliability for those travelling to/from Ely • Improved journey time reliability for those using the A142 to travel to/from north Cambridgeshire
Meeting the challenges of climate change and enhancing the natural environment	Positive	• Noise and pollution reduced in Station Road area
	Negative	• Detrimental impact on ecology • Visual intrusion of bridge
Enabling people to thrive, achieve their potential and improve their quality of life	Positive	• Improved journey time reliability and accessibility would enhance quality of life
Supporting and protecting vulnerable people	Positive	• Vehicle and pedestrian/cyclist conflict reduced in Station Road area • Risk of rail underbridge strikes reduced

Previous consideration of the scheme

Figure 4.7. Alignment of the Ely Southern Link Road scheme that was the subject of a Major Scheme bid in 2004.



An Annex E major scheme bid for the Ely Southern Link Road was submitted to the Department for Transport (DfT) in July 2004. Government did not approve the bid at that time. The congestion benefits of the scheme were recognised but the scheme did not present sufficient priority for approval at that stage. The DfT was also not satisfied that a lower cost alternative of a queue relocation system for both approaches to the crossing should have been rejected. Further work was undertaken on the low cost alternatives; these have been shown to be shorter-term solutions and are relatively expensive to implement for the limited benefits they bring.

A further bid was submitted in 2005 to the Regional Funding Allocation but was again not prioritised in that funding round.

In the intervening period, Network Rail have been working towards major improvements for freight trains on the Felixstowe to Nuneaton route, which will see the level crossing closed for significant periods of the day, leading to even more congestion and the possible re-routing of HCV's onto other unsuitable routes.

Current position

Due to concerns about the high cost and visual impact of the route on the historic cathedral city, a shorter route is currently being investigated that would reduce costs and mitigate the visual impact by avoiding a second river crossing. It would also have a more positive environmental impact, by acting as an alternative flood barrier. In addition to this, further work is being carried out on the alternatives to a link road. The County and District Councils are also working with the rail industry to investigate improvements to the interchange facility at the station and the potential future development of the station area as part of the Masterplan.

The County Council remains committed to identifying a solution and securing funding for this scheme. The East Cambridgeshire Core Strategy will take account of a future solution to the issues at the level crossing when it is reviewed.

Challenge 2: Reducing the length of the commute and the need to travel by private car

Vision

The Development Plan aims to provide the opportunity for more people to live within a reasonable distance of where they work and the services and facilities they use, and reduce the reliance on and use of the private car. Our vision is for the Local Transport Plan to support this aim, and ensure the current and future transport networks encourage those transport choices, and supports land use policy by ensuring people do not need to travel by private car for many trips.

Barriers

The LTP cannot meet this challenge on its own, as set out in Chapter 3. It is essential that other plans and policies, particularly land-use policies, are developed with this vision in mind to help to achieve LTP objectives. We have identified a number of barriers to achieving this vision:

- Housing affordability and lack of housing close to where people work
- Few or limited opportunities for flexible working
- Lack of or poor information regarding alternatives to the private car
- Often no realistic alternative to the private car
- The cost of public transport
- The need for more residential, workplace and school travel plans

What we will do to overcome these barriers

To address these barriers we will:

- Work with local planning authorities to bring about new developments in the most sustainable and accessible locations
- Encourage and promote the adoption of residential, workplace and school travel plans
- Support the development and adoption of local guidance and policies that promote travel planning, such as the upcoming Cambridgeshire Residential Travel Plan Guidance
- Encourage employers to introduce Travel for Work Partnerships in offices
- Promote journey planning tools such as **walkit** and **Camshare**

The following sections set our how the LTP and other related policies will help to overcome these barriers.

Work with local planning authorities to bring about new developments in the most sustainable and accessible locations

The Cambridgeshire joint planning statement is focussed on providing good quality and affordable homes closer to where people work, in accessible locations with sustainable transport options readily available. This will help reduce commuting distances as well as the need to travel by private car, thereby promoting low carbon living. It therefore focuses new development in the following areas.

- Within Cambridge or as sustainable urban extensions to the urban area, subject to environmental capacity and compatibility with Green Belt objectives
- At the new town of Northstowe, linked to The Busway

- Within, or as sustainable extensions to, the market towns of Wisbech, March, Ely, Huntingdon and St Neots, subject to the potential for regeneration and the provision of essential infrastructure and public transport improvements
- Within, or as extensions to, other market towns, where development would increase the town's sustainability and self-containment, improvements to infrastructure and services are planned or will be provided and high quality public transport provision can reduce the impacts of out-commuting

Details of the development strategy for Cambridgeshire are set out in five Local Development Frameworks (LDFs) and Local Plans as follows.

- Cambridge Local Plan 2006 and emerging Local Development Framework
- East Cambridgeshire Local Development Framework Core Strategy 2009
- Fenland Local Plan 1993 (as amended)
- Huntingdonshire Local Development Framework Core Strategy 2009
- South Cambridgeshire Local Development Framework Core Strategy 2007

Many of the LDFs and Local Plans of neighbouring authorities will impact on Cambridgeshire, including Forest Heath, West Norfolk and Kings Lynn, and St Edmundsbury. We will work with these authorities to mitigate any transport impacts of the plans.

The Local Development Frameworks and Local Plans contribute to the delivery of LTP3 objectives in a number of ways:

- ensuring that development occurs on land within or adjacent to existing settlements to reduce the need to travel
- identifying land needed for transport improvements and making planning decisions which parallel the **Cambridgeshire Design Guide For Streets and Public Realm** user hierarchy and good design principles
- incorporating green infrastructure, cycling, walking and public transport into the design of the new development
- providing key services such as leisure, healthcare, education and employment facilities, either within the development or with a sustainable transport option available to access the facility
- the implementation of parking policies in line with LTP3 parking policies, including the decriminalisation of parking
- supply of infrastructure through the use of S106 agreements and co-ordination with Cambridgeshire Horizons
- through development control decisions that support general transport aspirations of LTP3
- through the adoption of planning obligation strategies to secure funding for transport

The proposed **Local Government and Decentralisation (Localism) Bill,** published in December 2010 will return decision-making powers in housing and planning to local authorities and the communities they serve, alongside powerful incentives so that people see the benefits of building. Particularly, the Bill includes:

- The abolition of Regional Spatial Strategies.
- Transfer of national infrastructure decisions to the Secretary of State.
- Reform of the planning system to give local people new rights to shape the development of the communities in which they live. Local areas will be given the right to permit development without planning applications; developers planning large schemes will have to consult communities before submitting a planning application.

The LTP will take account of the Localism Bill as more detail is known.

Transport and the LTP can help support the development strategy for Cambridgeshire in a number of ways, as set out below.

Section 106 Agreements and Corridor Area Transport Plans

We will continue to negotiate S106 agreements to secure developer contributions towards county services including education, waste, community infrastructure and transport, to ensure that they are well planned, suitably funded, and delivered in a timely and sustainable way. Although this covers only new developments and their immediate surrounds, it will play an important role in making sure that transport infrastructure and services are provided close to where people live.

As new developments come forward they present opportunities to fully integrate cycling, walking and public transport within the built environment. It is essential that these modes are all considered from the earliest stages of the planning process (such as through masterplanning and design) and as part of the transport assessment process. This is a fundamental part of our strategy.

Where new developments are for housing only, pedestrian, cycle and bus access should be provided from these new developments to nearby facilities, such as shops, employment and schools as this can significantly reduce the levels of car trips generated by development. In order to minimise the need for residents to travel by car, it is important that infrastructure and information for other modes are made as attractive and obvious as possible, with the provision of high quality facilities including direct segregated cycle routes and bus priority measures. Contributions towards such infrastructure are always sought from developers.

The provision of high quality public transport will be vital to the delivery of new communities such as Northstowe, market town expansion sites and developments on the fringes of Cambridge. Therefore, contributions towards public transport - particularly revenue towards bus services - will be an essential part of Section 106 and future Community Infrastructure Levy negotiations and associated residential and workplace travel plans.

Cambridgeshire County Council, in partnership with Cambridge City Council and South Cambridgeshire District Council, has drawn up four area transport plans (the Eastern, Northern, Western and Southern **Corridor Area Transport Plans**). The Plans cover the whole of the Cambridge city area, and some of the necklace of villages surrounding the city which lie in South Cambridgeshire. They identify new transport infrastructure and service provision required to facilitate the development of Local Plan/LDF allocations. They set out a fair and robust means of calculating how individual development sites in the area should contribute towards the fulfilment of that transport infrastructure. They have been very successful in securing contributions from developers and implementing the objectives of the LTP, indicating the approach has more widespread benefits. Some £8.8million has been secured to date[14].

The Corridor Area Transport Plans take into account current and emerging local and national policy. The Cambridge Local Plan, South Cambridgeshire LDF, Cambridgeshire Structure Plan and this Local Transport Plan (LTP3) set out the linkages between land use and transport that form the underlying basis of the Corridor Area Transport Plans. The LTP3 endorses the 'Corridor Area Transport Plan' approach. Monies obtained through the Plans are spent in line with the City, District and County Councils' transport and planning policies. The Corridor Area Transport Plans are currently being reviewed and will form part of the Cambridge Area Transport Strategy.

Over the life of this Plan we will investigate opportunities for the wider application of Area Transport Plans in the rest of the county to enable additional funding to be secured.

The Council is also working with each district council to progress proposals for a Community Infrastructure Levy (CIL). Each district council is developing an Infrastructure Study or Local Investment Framework. The studies will note the current infrastructure provision in the District, consider the likely housing growth in the District, and will then assess what new infrastructure (or upgrades) is required in order to meet the future demands of housing growth. We will then use the

[14] As of 2010

studies to devise a CIL charging schedule which will be used to secure developer contributions for transport and other infrastructure. In the interim some of the district councils will be developing planning obligation strategies before CIL is adopted to help secure funding towards new developments, which will be adopted and supplementary planning documents.

Cambridgeshire Design Guide for Streets and Public Realm

The **Cambridgeshire Design Guide For Streets and Public Realm** and Manual for Streets 2 place pedestrian requirements, followed by cycling requirements, at the top of the overall movement hierarchy, promoting permeable developments, with open and direct access for pedestrians and cyclists. Good design includes clearly defined direct pedestrian and cycle routes to areas of activity and sufficient green spaces to make areas attractive on foot and bicycle. We will require developers to design new developments around the Manual for Streets and Cambridgeshire Design Guide principles and will assess proposals on the basis of those principles. In addition to applying these principles to new developments, where possible we will seek to apply them to existing built up areas.

Pedestrian and cycle links between villages are also very important to provide access to services and recreational facilities, as well as providing leisure opportunities and maintaining social links. In appropriate cases, consideration will be given to the provision of new footways and cycleways to improve links between villages, particularly those with limited public or community transport services. We aim to continue implementing our **Rights of Way Improvement Plan** to provide better connected rural access networks, matched to local demand.

Distance is a major factor in deciding how to make a journey. The further the total distance the less likely it is that cycling or walking will be chosen over the car. Therefore, one way of providing an advantage to cycling is to increase permeability by allowing cyclists and pedestrians to use routes not permitted for motorised vehicles. Furthermore, in urban areas it is sometimes possible for journey times for cyclists to be significantly reduced by opening up ‘cut-throughs’ from one road to another or by providing paths across green spaces. These small schemes often provide good value for money, as there can be significant gain for comparatively little investment. When planning new pedestrian and cycle routes we will work with landowners and developers to provide the most direct routes in order to reduce journey distances.

Cambridge Area Transport Strategy (CATS) and Market Town Transport Strategies

As noted for **Challenge 1**, once in place, the Cambridge Area Transport Strategy will provide an up to date policy basis for the negotiation and securing of developer contributions which will be used to mitigate the impacts of new development and provide environmentally sustainable transport in and around the city.

Market Town Transport Strategies consider in detail the transport needs of each particular town and set out a programme of measures to encourage the use of more environmentally sustainable transport and improve safety over the longer term. Like the Cambridge Area Transport Strategy, they support the development strategy by setting out the measures needed to cater for development and are also used to help secure developer contributions.

Rural Transport Strategy

Our commitment to developing and implementing a Rural Transport Strategy is set out on page xx.

Encourage and promote the adoption of residential, workplace and school travel plans

Smarter choices are measures that aim to encourage environmentally sustainable travel by influencing individual travel behaviour, they can also contribute towards the transition to low carbon

living. They include initiatives such as car clubs, car sharing, travel plans, journey planning and promotion. Travel planning initiatives are particularly effective in reducing the reliance on the private car as they promote alternatives to the car and can also help to secure funding towards infrastructure improvements such as cycle parking and bus stops, thereby helping to improve the alternatives available. Our strategy for tackling the challenge to make sustainable modes of transport a viable option sets out our detailed approach to smarter choices as part of this LTP, as outlined on pages XX.

Full information on travel plans and other smarter choices measures which will help to reduce the need to travel can be found in Challenge 3 – including information on:

- Workplace travel plans
- Journey planning tools
- Residential travel plans
- School travel plans
- Personalised travel plans
- Flexible working

Work with service providers to be innovative in the way services are delivered locally

As stated earlier in the section, reducing the need to travel is not only a challenge for transport. To address this challenge we will need to work with service providers to investigate whether services can be moved to people and other more innovative forms of service delivery, in order to reduce the need for people to travel to services. Further information can be found on page xx.

Challenge 3: Making sustainable modes of transport a viable and attractive alternative to the private car

Vision

That people have a real choice about how they travel and that for many journeys, walking, cycling, buses and trains are the preferred modes

Barriers

- Length of journey
- Lack of direct walking/cycling routes between homes and services/leisure facilities
- Lack of infrastructure to promote sustainable travel, for example bus and cycle lanes and pedestrian crossings, and segregated inter-urban cycle routes
- Road safety concerns for all road users
- Lack of public transport, particularly in rural areas and during the evenings
- Lack of ongoing funding to subsidise non-commercially viable bus services
- Reliability, availability, quality and predictability of public transport services
- Lack of information/awareness about sustainable travel options
- Misconceptions about sustainable forms of transport, for example, high cost of bus fares and poor road safety for bicycles
- Inflexibility of public transport compared to car travel
- Status associated with car ownership and cultural preference for car travel

What we will do to overcome these barriers

- Work with planning authorities to co-locate housing and services/facilities to reduce the need to travel long distances
- Negotiate with developers to ensure the provision of sustainable and environmentally friendly infrastructure as part of new developments
- Promote sustainable networks for walking and cycling
- Make provisions for cyclists on road and off road, including cycle parking where feasible
- Promote cycle training for school children and promote cycle training for adults
- Improve availability and type of information on sustainable travel modes
- Improve the integration of all modes of transport and provide good connectivity between walking, cycling, bus and rail services.
- Provide the right infrastructure on key transport corridors to encourage commercial operators to provide high quality services
- Continue to support community transport schemes and subsidised bus routes
- Implement the Cambridge Area Transport Strategy and our programme of Market Town Transport Strategies which promote sustainable travel
- Investigate demand management measures for cars where congestion is a particular problem
- Promote the health and lifestyle benefits of choosing sustainable modes of travel
- Support the introduction of car clubs across the county and encourage usage when travel alternatives are unavailable
- Support and expand our travel planning programmes working with businesses, developers, schools and individuals to promote sustainable travel
- Provide a new rail interchange at Chesterton

Work with planning authorities to co-locate housing and services/facilities to reduce the need to travel long distances

At both a strategic and a local level, it is critical that transport and spatial planning are closely integrated, particularly in growth areas such as Cambridgeshire. The five Local Development Plans for Cambridgeshire set out the growth planned in each district.

The County Council works closely with the City and District Councils as local planning authorities to approve new developments which co-locate housing with amenities – such as shops, employment, leisure and education facilities. Providing local facilities close to where people live can reduce the need to travel by car because they can be easily accessed by foot or bicycle. Encouraging children to walk and cycle on their home to school journey can also influence their travel behaviour in later life.

Further detail on how we work with our partners to reduce the need to travel through the planning process can be found on page xx.

Negotiate with developers to ensure the provision of infrastructure as part of new developments

Ensuring that good design principles are adopted and that the appropriate transport infrastructure is in place as new developments are built is critical to influencing new residents' travel behaviour from the start. The information on page xx sets out our approach to securing the provision of infrastructure.

Promote sustainable networks for walking and cycling

Cycling and walking bring many benefits and by increasing the number of people who walk and cycle and encouraging more people to make more of their journeys by foot or bicycle, will allow us to make real progress towards meeting all of our objectives, particularly tackling climate change.

The provision of safe, continuous cycling and walking networks can also help to improve quality of life and well-being of vulnerable groups in the community such as young people, to access key services as well as leisure and recreational facilities and gain independence. The provision of such routes can also help vulnerable people to lead an active life and therefore a healthier life and also contribute towards the transition to low carbon living.

Urban areas

It is in urban areas that most cycling trips take place due to the shorter distances that usually need to be covered in order to access services. Higher population density and the greater concentration of amenities mean it is more likely that a trip will fall within the 5km category and is therefore considered practical for cycling. It is therefore also the case that urban areas have the most potential for modal shift toward cycle use. Hence it is important that cyclists are well catered for in the city and the market towns.

Distance is a major factor in deciding how to make a journey. The further the total distance the less likely it is that cycling or walking will be chosen over the car. Therefore, one way of providing an advantage to cycling is to introduce measures that reduce the distance by bicycle in comparison to the car. Increasing continuity of routes and permeability by sustainable modes by allowing cyclists and pedestrians to access routes that motorised vehicles cannot is one way in which this can be done.

In urban areas it is sometimes possible for journey times for cyclists to be significantly reduced by opening up cut-throughs from one road to another or by providing paths across green spaces or

ways of overcoming obstacles such as railway lines or rivers. These small schemes often provide good value for money, as there can be significant gain for comparatively little investment.

Networks in Cambridge and the market towns are developed through the Cambridge Area Transport Strategy and the Market Town Transport Strategies respectively.

Rural areas

Rural areas often see lower cycle and pedestrian trip rates than Cambridge and the market towns, due to the larger distances that frequently need to be covered. Roads in rural areas are often less suitable for cycling because traffic speeds are high and space on the carriageway is limited. Large vehicles and poor visibility at bends can also create an environment which is not hospitable to cyclists. This means it can be very difficult to travel sustainably to villages or towns that may actually be very close and often well within the acceptable distance for cycle trips or walking. It is therefore acknowledged that the potential to induce modal shift towards foot and bicycle is not as high as in urban areas, however, if suitable facilities and continuous routes are provided there are a large number of short trips that could be transferred. To help encourage more people to cycle in rural areas we will investigate cycle and pedestrian links to market towns and schools from nearby villages and settlements. For walking we will continue to open up the countryside via our **Public Rights of Way** network and **Rights of Way Improvement Plan**.

Leisure routes

Cycling and walking can also offer an opportunity for leisure and exercise as well as a means of transportation. Both are family friendly and supportive of the national **Active Travel Strategy** and the health agenda, it is important to provide where possible leisure routes that can be used to access the countryside and areas of interest. Cambridgeshire benefits from a flat topography which makes cycling more viable as a leisure activity because a greater distance can be covered without the need for high fitness levels. We will provide more cycle routes to leisure facilities particularly as part of new developments. Noteworthy projects that form part of our long term programme include:

- Cycle route from Ramsey to Great Fen (**Ramsey Market Town Transport Strategy**)
- Cycle route from Chatteris to Mepal Outdoor Centre (**Chatteris Market Town Transport Strategy**)

Cambridgeshire benefits from a number of **National Cycle Network** paths running through the County, including routes 11, 12, 51 and 63. These routes provide valuable facilities for local residents as well as long distance journeys. This strategy supports the development of this network and where possible aims to link into it. This adds value both to the existing network and to any new links.

Make provisions for cyclists on road and off road, including cycle parking

A variety of types of provision for cyclists is appropriate for different local environments and is inevitably dependent on space and cost. We are committed to improving routes for cyclists to provide a joined up network which takes cyclists safely and conveniently between destinations.

On road cycle lanes

On road cycle lanes can provide fast direct links between key destinations, such as town centres, schools and employment sites, and where continuous routes are provided, can help to reduce conflict with motorised vehicles.

Studies have shown that motorists will overtake a cyclist in a cycle lane closer than a cyclist on the carriageway, so if the cycle lane is too narrow or obstructed this may leave the cyclist with very limited space. This can lead both to the cyclist feeling intimidated and can cause conflict between

different road users. It is therefore acknowledged that in some circumstances, it may be best for people to cycle on the carriageway, rather than to provide an on road cycle route of insufficient quality. Our **Highways Policies 2010** sets out the minimum width for on carriageway cycle lanes.

Off-road cycle routes

Our recent cycle survey in the Cambridge area suggested that one of the most effective methods for encouraging cycling may be to introduce off-road cycle facilities similar to those found in countries such as The Netherlands. Although in our urban areas, space to build such facilities can be limited due to the historic built environment, we will provide such routes where space allows and where this provides the best route and most value for money.

Provision of secure parking

A lack of secure, lit cycle parking, particularly in areas where shops, services, education and leisure facilities are concentrated, can deter people from cycling. This has been highlighted as a problem in the market towns and in Cambridge and we also recognise it can be an issue in some of our larger villages and at school sites. Where demand is high, bicycles are often locked to railings or leant against buildings, which can both be less secure for the bicycle, and cause an obstruction to pedestrians. It can also reduce access for those in wheelchairs and create a less pleasant environment.

Cycle parking can take many forms, however it should meet a reasonable standard and should make provision of a bicycle to be locked up by the frame, not only by the wheel. Sheffield stands are an example of a suitable method. This provides a much higher level of security and if used in conjunction with a D-lock can significantly reduce the probability of bicycle theft. Where possible it is also desirable to place cycle stands in areas covered by CCTV in order to further discourage thefts.

Where Sheffield stands or similar means are used they should not be placed too close together. There should be comfortable room for bicycles to be moved between the stands without damage being caused to other cycles.

As part of this strategy it is important that we deliver cycle parking at as many key destinations as possible. This will largely be delivered through our **Market Town Transport Strategies** and the Cambridge Area Transport Strategy. Where possible cycle parking will be located very close to services and leisure facilities and in the centre of shopping areas to enable cyclists to get as close to their destination as possible. Being able to cycle from door to door has been shown to increase the probability of carrying out a trip by bicycle, particularly if car parking is remote. The ability to park a bicycle very close to your destination at no cost increases the competitiveness of cycling in comparison with car use. Where possible, cycle stands should be installed in well lit and well populated, open areas. There is a need to develop a strategy to manage cycle parking more effectively in the centre of Cambridge. This may require more innovative approaches to cycle parking such as the potential for short and long stay cycle parking.

Our **Market Town Transport Strategies** contain programmes aimed at increasing the availability of secure cycle parking. In Cambridge, we have been installing new cycle parking as part of the **Cycle Cambridge** initiative. In addition, as part of the development of the Cambridge Area Transport Strategy we will identify locations for extra cycle parking.

It is also important that cycle parking is provided as part of the development process. This is particularly the case where the development consists of a high proportion of flats, as this can result in limited opportunity for an individual to store a bicycle securely and conveniently. Ideally, cycle parking for residents should be under cover in secure sheds, with guest parking available. The Cambridge Local Plan sets out cycle parking standards for Cambridge and the City Council's Cycle Parking Guide for New residential Developments provides further detail.

Cycle parking is far less land-intensive than parking for cars and therefore far more space-efficient in a confined urban environment, such as Cambridge. Parking for up to six bicycles can be installed in the same space needed for one car.

To further encourage cycling, facilities such as lockers, spaces to hang wet clothes, showers and changing rooms should be provided at schools and work places and the **Travel for Work Partnership** work with businesses to promote the installation of such relatively low cost measures.

Promote cycle training for all ages

Cycle training can help increase confidence on the road and reduce the feeling of being unsafe or unsure. Helping make people feel safer while cycling can help reduce barriers to cycling and encourage up take. This in turn can induce modal shift and is therefore important to addressing this challenge.

Bikeability – Adult cycle training

Adult cycle training has formed a key part of the **Cycle Cambridge** programme, with the number of adults trained increasing from 49 in 2008 to over 253 in 2010. Training sessions are aimed at improving confidence and cycling skills and are tailored to an individual's needs. During the period of this strategy we will seek to continue offering Bikeability training.

Cycle training in schools

Cycle training in schools is an important part of our strategy. There is a long history of cycle training taking place in schools and of children taking their cycle proficiency test. If an individual begins cycling at an early age it is more likely that they will continue to do so in later life, it is therefore important that children are encouraged to cycle and trained to do so safely.

Our approach to cycle training in schools and our safer routes to schools programme are explained on pages xx.

Improve availability and type of information on sustainable travel modes

Lack of information often presents a barrier to the uptake of sustainable travel, therefore improving sustainable travel awareness is very important to achieving modal shift, reducing carbon emissions and improving air quality. Travel awareness campaigns encourage people to consider their own travel behaviour and increase acceptance of the need to reduce car use.

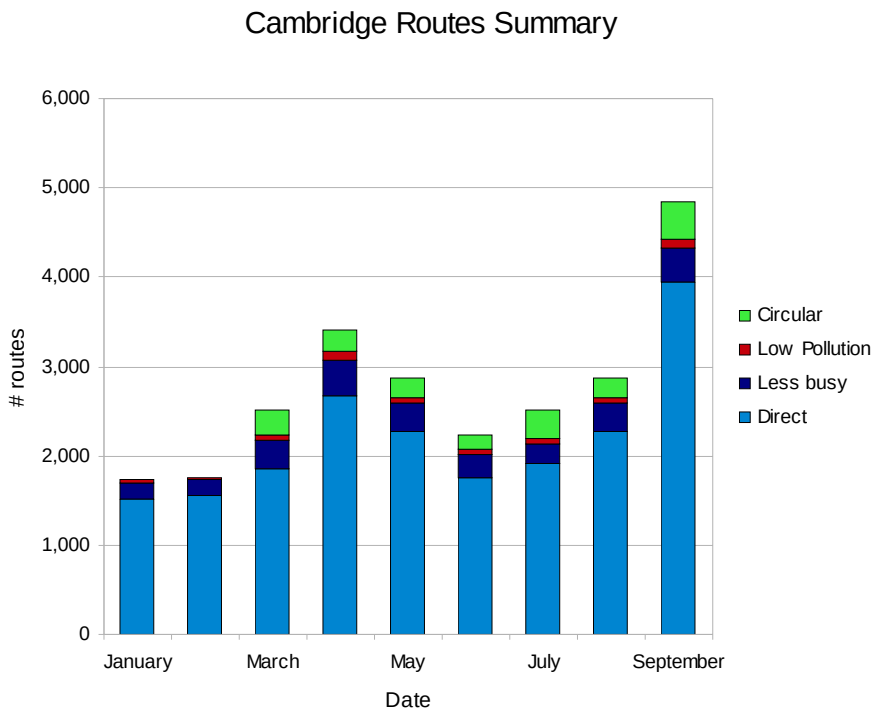
As part of this strategy, we will continue to implement new and innovative ways of promoting and providing information to influence travel behaviour. We will continue to implement national events and campaigns and promote them locally. We aim to encourage sustainable travel by residents of Cambridgeshire through media, such as the internet, radio, local magazines, display boards in public areas and staffed stalls at local fairs.

Journey planning tools are also an important part of our strategy to encourage mode shift from car use to walking, cycling and public transport use. We will continue to promote the use of **Transport Direct** as a nationally recognised online journey planning tool for all modes of travel.

Walking

During the period of LTP2, we set up a route planning tool for pedestrians travelling in and around Cambridge, as part of the website **www.walkit.com**. The website provides detailed information and maps showing walking routes between origin and destination points in Cambridge and can provide the user with information such as, journey length, estimated journey time, calories burned, CO_2 saved, and suggested routes with more favourable air quality. **Figure 4.8** illustrates the popularity of the tool, indicating around 2000 journey requests per month in 2010.

Figure 4.8. 2010 usage statistics for walkit.com



Supporting tools such as Walkit is an important part of our LTP3 and we will investigate the feasibility of extending Walkit coverage to our larger market towns. We will also build on this internet-based technique to consider the delivery of walking route information through other media, including mobile phones.

In terms of rights of way information, we have an **interactive map** of the public rights of way network and other access opportunities so that people can find places to walk, cycle or ride across Cambridgeshire. The range of available information is evolving and improving all the time to provide greater clarity and information on routes which can be used for commuting and leisure.

Pedestrian signs and information boards are already available across the County for the benefit of both residents and visitors. The Busway presented a recent example of providing such information for users of the maintenance track bridleway and linked routes.

Case Study: Cambridge Wayfinding project

Cambridge welcomes thousands of people every day. The key to ensuring that all visitors to the city can find their way with ease and enjoy the experience, is a comprehensive and co-ordinated system of on-street signage including elements such as signs, maps, markers and information boards.

A partnership led by City Centre Management and involving Cambridge City Council, Cambridgeshire County Council and the private sector, is developing a new street signage system to achieve this aim.

The project involves a series of linked nodes and fingerposts across the city. A node is a tablet style sign, which contains a map and destination list as **shown here**. A fingerpost is a direction sign, which links the nodes together. The signs have been developed following a series of workshops with a wide variety of organisations and groups.

Cycling

In urban areas, where space is often too limited to provide dedicated on or off road cycle lanes, it is sometimes possible to direct cyclists onto quieter roads which shadow main routes but are less well known. This can help reduce potential conflict between cyclists and motorised vehicles, particularly HCVs and buses. Large vehicles can be particularly intimidating for cyclists, and limited road space can increase the risk of accidents.

Raising awareness of both the benefits of cycling and the routes available is an important part of our strategy. We are developing a series of cycle maps for the county, like the **Cambridge area cycle map** and **Wisbech cycle map**. These maps provide information on suggested local cycling routes and traffic signs, availability of cycle parking as well as some useful cycling tips. Over the course of this LTP we will produce cycle maps for the other market towns in the county.

Promoting and publicising new routes is also an important part of our strategy to encourage more people to cycle. Advertising campaigns on buses have focussed on commuting, families cycling together and young women cycling. Future campaigns will include cycling for fitness/health, the promotion of Bike Week events and adult cycle training.

Every year we take part in **National Bike Week** to promote cycling and to show how cycling can easily be a part of everyday life. Events include free bicycle hire, cycle tours and cycle challenges. These events are an important way of raising awareness of the benefits of cycling and how people can fit it into their daily lives. We also promote **CamShare**, which provides a free online service that enables people to find other cyclists to share their bicycle journeys. We will continue to provide up to date information and raise awareness of the benefits of cycling during this LTP.

There is also a range of cycle journey planning tools available including **cyclestreets.net**.

Public transport

Providing adequate information is essential to encouraging public transport use and is the joint responsibility of the County Council and bus operators.

The most immediate point of reference for information on bus services are timetables. We aim to provide full and accurate timetable information at key roadside stops. Where paper copies cannot be provided, we will continue to promote the availability of electronic information. We will carry on working with **transportdirect.info** which is a national organisation providing a telephone and online journey planning service for journeys by all modes including bus and our **mobile phone texting service** providing service information directly to mobile phones.

Page xx sets out our approach to Real Time Passenger Information (RTPI) which provides users with up to date service information for their journey.

Our strategy for improving the availability of information on Community Transport is available on page XX.

Rail

Information about rail services is also available on the **transportdirect** website and we promote this as part of our commitment to improving sustainable travel interchange, for example between bus and train. We also work with train operators to better coordinate the timetabling of services between different modes so that buses for example arrive at rail stations to collect passengers alighting trains and so on. The provision of sustainable travel information at rail stations is an important part of our commitment to improving travel information.

Improve the integration of all modes of transport and provide good connectivity between walking, cycling, bus and rail services.

Providing a fully integrated sustainable transport network is crucial to meeting this challenge, improving air quality and tackling climate change. Passengers must be able to transfer between modes easily and in a well-informed way if we are to achieve a modal shift from journeys made by private car. We will consider whole journeys between origins and destinations, particularly between homes and places of work, education, healthcare, shopping and leisure services to ensure we have a joined up network.

Walking

Enhancing walking facilities to and from public transport services is an important part of our strategy. Improving bus stop infrastructure, such as shelters, seating, the installation of raised kerbs to allow level boarding and maintaining pathways and pavements on the approach to bus stops are important factors in encouraging public transport use and will continue to be implemented during this LTP. Further information about improving accessibility to the public transport network can be found in our **Market Town Transport Strategies** and, when completed, in our Cambridge Area Transport Strategy. Additional mechanisms will also be explored in the preparation of our new Rural Transport Strategy (see page XX). Information on monitoring and maintenance of our footpaths and pavements is contained within our **Highways Policy 2010**.

Cycling

Cycling can provide access to other modes such as buses and trains which can then be used to complete a longer journey. Providing facilities that encourage this can help alleviate congestion around railway stations particularly at peak times and can reduce the problems with parking that can often overspill into residential streets. We will therefore improve cycle links and cycle parking at bus stations, well used bus stops and railway stations. In some cases this may simply be the provision of secure bicycle parking nearby to enable easy transfer, and in others it may be the provision of a cycle link to improve access. In the longer term we will seek to install cycle parking facilities at bus stops along main bus routes to provide better interchange opportunities in our rural areas. Again, our **Market Town Transport Strategies** set out our programme for improving interchange facilities in the market towns. In Cambridge, the Cambridge Area Transport Strategy will detail how we will make it easier for people to cycle as part of longer journeys on buses or trains.

Improving cycle access to and parking at railway stations will help encourage more people to travel sustainably and also help to increase the number of journeys on the railway. This helps reduce pressure on parking both at the station itself and in the surrounding streets which often causes

problems for local residents and can result in a reduction in road safety. At popular commuter stations such as Cambridge, Ely, Huntingdon and St Neots encouraging access by bicycle rather than by car can also contribute significantly to reducing peak time congestion in the local area.

While cycle parking is available at many of our railway stations, many facilities are full or indeed over capacity. This is particularly the case at Cambridge station where demand far outstrips supply potentially putting off even more people from cycling to the station. We will therefore work with Network Rail and National Express East Anglia to improve the quality and number of cycle parking stands at Cambridge station and other stations in the county where needed.

A dedicated cycle route has been built alongside The Busway between St Ives and north Cambridge, this will become part of the National Cycle Network Route 51. This route will provide a high quality direct link from St Ives and the villages along the route into Cambridge and vice versa. We will improve cycle access both to the new cycle route alongside The Busway and to the bus stops themselves in order to provide the best possible opportunity for interchange. This is particularly true at the terminal in St Ives and the Park and Ride facility at Longstanton. Provision of cycle parking at these locations would be of great potential benefit, and we will investigate providing cycle links to them.

Park & Ride

For people travelling to Cambridge by car, our five Park & Ride sites offer a cheaper and more convenient journey into the city centre by bus. Owing to the popularity of this scheme, some of our Park & Ride sites are now operating close to capacity and as part of the Cambridge Area Transport Strategy, we will investigate expanding these sites and providing interchange capacity for community transport schemes and longer distance bus travel to manage the overall number of buses accessing the city centre. Furthermore we will continue to encourage more people to cycle to our Park & Ride sites and increase the amount of cycle parking where appropriate.

Rail

Integrating walking, cycling and bus use with the rail network is a fundamental part of meeting this challenge. Across Cambridgeshire, there is reasonable access to rail stations for a large proportion of the population. Some rural parts of the county are well served by rail, for example, the A10 corridor both north and south of Cambridge, while others rely on the markets towns and Cambridge for access to the railway network. Therefore it is essential to improve access to these stations as well as interchange and waiting facilities at the stations themselves. Through this strategy we are committed to working with rail operators to better integrate walking, cycling and bus use with rail. This will largely be through pedestrian/cycle routes and cycle parking, where viable, influencing buses to serve rail stations, working with rail operators to increase service frequencies and open up extra routes, and where appropriate provide additional and/or better manage car parking.

Improved cycle access to railway stations via cycle path networks or quiet routes can help encourage more people to cycle and more people to travel by train rather than car. Our **Market Town Transport Strategies** for Ely, St Neots, March and Huntingdon set out measures to improve cycle access to the railway stations in the towns. In some cases these measures have already been implemented.

In Cambridge, the **Chesterton Interchange** proposal, the **CB1 development**, and Network Rail's plans for an island platform will all contribute significantly to the growth of rail use during this LTP3 period and hence it will be essential to provide dynamic interchange facilities. Further information on integrating rail with other modes can be found in our **Market Town Transport Strategies** and, when completed, the Cambridge Area Transport Strategy.

The Fenland LSP Transport and Access Group are looking to set up a Community Rail Partnership to try and increase the frequency of trains stopping at rural stations. In particular, the Transport and Access Group are keen to see the line between Wisbech and March re-opened.

In East Cambridgeshire, we will support the District Council to investigate the feasibility of providing a railway station at Soham to help cater for the planned growth in the town. The provision of a station in the future would be very much dependent on the business case, funding availability and the ability to provide sustainable transport access to the station.

Ticketing

The Smart and Integrated Ticketing Strategy, published by the DfT in 2009, set out the Government's commitment to encouraging inter-operator and inter-modal ticketing. At present, passengers wishing to make a journey by public transport requiring them to catch two buses with different operators often have to purchase a separate ticket for each service – this can contribute to fewer people using the services. For The Busway, multi operator ticketing is planned, so that passengers can use a valid ticket to travel on any services on the guideway, regardless of operator. This provides the passenger with much greater flexibility on timetables and therefore an enhanced level of service.

Plusbus is an initiative which allows travellers to buy a reduced rate bus ticket for journeys in a town, when purchasing a train ticket to that destination. At present, Plusbus operates in Cambridge, St Neots, Huntingdon and Peterborough but during this LTP we will investigate with the provider whether there is scope for rolling out the scheme to some of our other towns with rail stations, such as Ely.

The development of off vehicle ticketing systems using smart cards, ticket machines and mobile phones for our bus services will make advance ticket purchasing more widespread. This will reduce the amount of dwell time at bus stops, therefore speeding up bus journey times and making bus trips more attractive and competitive with car journey times. It will also reduce queuing traffic waiting behind buses which can stop for several minutes, leading to improvements in air quality. Off vehicle ticketing technology is already beginning to be rolled out, for example at Cambridge Park & Ride sites and we will continue to work with operators to eventually remove the need for drivers to issue bus tickets.

Provide the right infrastructure on key transport corridors to encourage commercial operators to provide high quality services

Bus patronage in Cambridgeshire increased by 61% between 2001 and 2008, with a 100% increase in Cambridge. However, bus trips account for a relatively low share of travel throughout the county compared to that of private cars.

As already outlined in Chapter 3, in rural areas with a dispersed population it is very difficult for commercial bus operators to run viable services - and more specifically – services that meet the transport needs of a range of users. In practice, bus services in Cambridgeshire offer the most frequent services along the main corridors between the market towns (both within and outside the county) and along routes into Cambridge or Peterborough.

In the past we have demonstrated that in partnership with bus operators, we can significantly increase patronage on a particular route. On the A1307 Cambridge to Haverhill route, for example, patronage significantly improved after infrastructure improvements were made along the route, particularly at Addenbrooke's hospital, alongside improvements to the frequency of the service made by the operator. We will continue to work closely with Suffolk County Council and St Edmundsbury Borough Council to investigate further improvements to the route. The County Council has various mechanisms both formal and informal which it can use to form partnerships with bus operators.

Huntingdon to St Ives bus priority measures

The Huntingdon to St Ives bus priority measures are a package of measures which will improve the reliability and attractiveness of services along the route and will also enhance services operating on The Busway. The package of measures includes:

- George Street / Walden Street contraflow bus lane inbound to Huntingdon bus station (already in place)
- a bus lane on both Hinchingbrooke Park Road (part) and Brampton Road (part) and at their junction and a school drop-off point at Hinchingbrooke School
- a westbound bus lane, cycle path and footway along Hartford Road inbound to Huntingdon
- a bus only road with cycle path and footway on Old Hartford Road inbound to Huntingdon (already in place), and
- a bus lane, cycle path and footway inbound to St. Ives on the A1123 Houghton Road.

The bus lanes will also help some services that travel into Huntingdon and St. Ives from surrounding areas such as Brampton, Houghton and Wyton. The Council is committed to improving this route for buses, however in the short-term there is no funding available to implement the schemes. We will continue to investigate alternative sources of funding for the scheme.

Quality Bus Partnerships and Quality Bus Contracts

The Local Transport Act 2008 set out a number of options for Quality Bus Partnerships and Quality Bus Contracts. The County Council's current preferred approach would be to implement Quality Bus Partnerships as appropriate across the county to cover the use of bus stops, services, air quality issues, layover space, environmental and improvements to vehicles and the management and enforcement of these issues. Quality Bus Partnerships also have an important role to play in Air Quality Action Plans. These are all points that we will investigate during this LTP. The Council would be required to deliver measures such as waiting restrictions, bus lanes, layover facilities and improved bus stops as part of any Partnership Agreement.

The difficulties of providing a viable bus service in rural areas have already been outlined. However, if services on main corridors are of a high quality, then there are opportunities for these to be accessed by people who do not live directly on the route, by using alternative means such as community transport, cycle or on foot, or by being dropped off by car. The exact form of interchange will depend on the location and needs of people in the area, however, the types of facility that could be provided include:

- Cycle racks
- 'Kiss & Ride' facilities to enable cars and community transport providers to drop off passengers
- Bus shelters and seating facilities

Through surveys and consultations we are aware that punctuality and reliability are key issues for bus users, and therefore in busy areas where buses have little competitive advantage over cars, traffic management measures need to be employed if we are to encourage modal shift to bus use. Such measures include reallocating road space for buses, for instance with dedicated bus lanes, using Intelligent Transport Systems to monitor the network and prioritise traffic lights where buses are queuing and enforcing parking restrictions to remove inappropriately parked vehicles. In Cambridge, traffic management measures will be explored as part of the Cambridge Area Transport Strategy.

In rural areas and the market towns, the measures needed to improve punctuality and reliability are likely to be smaller scale. In partnership with bus operators and the District Councils, we are committed to developing a traffic management programme which may include measures such as parking controls at bus stops and along bus routes.

Continue to support community transport schemes and contracted bus routes

The continued support of community transport schemes and contracted bus routes are essential to meeting this challenge and are covered in detail on pages XX. Information on concessionary fares is also covered on page XX.

Implement the Cambridge Area Transport Strategy and our programme of Market Town Transport Strategies which promote sustainable travel

In line with national and local transport policy, this LTP will strongly promote sustainable travel rather than single occupancy car journeys, particularly for shorter trips and where other modes are readily available. On a very local basis, our LTP is delivered through our suite of **Market Town Transport Strategies** which have been developed and implemented during the periods of LTP1 and LTP2. We now have strategies covering most of Cambridgeshire's market towns and during LTP3 will adopt the final MTTS for Whittlesey. Reviews of these strategies take place periodically but they are designed to be dynamic documents which need to respond to changes taking place within the towns and to take advantage of funding opportunities which may arise, for example, through development. We are also developing a new Cambridge Area Transport Strategy which will look to deliver significant improvements for travel in and around the city. This work is being guided by Members of the Joint Transport Forum.

The implementation of these strategies will be an essential part of our LTP Implementation Plan as detailed on page XX.

It is in urban areas that most cycling and walking trips take place due to the shorter distances needing to be covered in order to access services and recreational facilities. Higher population densities and a greater concentration of amenities mean it is more likely that a trip will fall within the 5km category and is therefore considered practical for cycling. It is also the case that urban areas have the most potential for modal shift toward walking and cycle use, and so it is important that pedestrians and cyclists are well catered for in Cambridge and the market towns.

Our strategy in urban areas therefore focuses on making walking, cycling and public transport use more attractive in comparison to car use. For our market towns we have developed networks of pedestrian and cycle routes, the plans for which can be viewed at **www.cambridgeshire.gov.uk/mtts**. Although we can only exert influence on commercial bus operators about their service provision and routes, where there is a clear need for public transport, we will investigate the use of contracted services or the role of community transport provision. These are detailed on pages XX.

Case Study: Cycle Cambridge

Within Cambridge, cycling accounts for 25% of commuter trips and is popular with the large student population. Cycle use is also spread relatively evenly over the various demographic groups, with recent survey work indicating that people of all age groups and both genders are well represented within the cycling population. The majority of those responding to the survey also indicated that their household had access to at least one car, suggesting that many individuals choose to cycle over using their car. This suggests that Cambridge, as a city, bucks the national trend of declining cycle use and cycling being dominated by either those with no access to other modes or younger men, with very low uptake by women and older people.

For Cambridgeshire as a whole, including the market towns, the rate of cycling for the journey to work is around 9%. While this is much higher than the average of 2.8% for England, we want to see even higher levels of cycling in the rest of the county.

In 2008, Cambridge was awarded National Cycling Town status which has resulted in £7.2 million for cycling improvements in Cambridge and its surrounding villages until March 2011. The programme combines infrastructure and information, for example new routes, parking, training and publicity initiatives. **Cycle Cambridge** funding has helped to deliver a number of new cycle routes in the Cambridge area which are being used by both commuters and leisure users.

For the Cambridge area our objectives focus on improving accessibility, reducing congestion and improving air quality and the public realm. We will prioritise improvements for pedestrians and cyclists in the central areas, and look to improve access and journey times for bus users, including Park & Ride services. Demand management to restrict car movements will need to be examined in more detail as the strategy is developed. We will build on the good work of the **Cycle Cambridge** project which aims to expand the cycling culture, to ensure levels of cycling in new developments and surrounding villages match existing levels in central Cambridge.

Introduce demand management measures for cars where congestion is a particular problem

Providing better and more environmentally sustainable transport alternatives will not reduce congestion sufficiently on its own. Whilst very important, these measures need to be combined with effective demand management techniques to have a notable effect. Further information on the techniques that we will use to manage demand is given on page xx.

Promote the health and lifestyle benefits of choosing sustainable modes of travel

We will continue to work with colleagues in NHS Cambridgeshire through the Local Strategic Partnerships and the emerging Local Enterprise Partnership to promote the health benefits of active modes of travel, particularly walking and cycling. Statistics[15] show that regular walking for example, “can reduce the risk of coronary heart disease, diabetes, stroke, high blood pressure, cancer, osteoporosis and arthritis. It can help deal with anxiety and stress, and may reduce the risk of Alzheimer’s disease”. In addition, active travel can help to improve general well-being, quality of life and mental health. Furthermore it can help people to live low carbon lives.

Walking is a healthy, low-cost, non-polluting mode of transport that is available to most people, regardless of their age and income.

[15] See **http://www.nhs.uk/Livewell/women4060/Pages/Walktohealth.aspx**

Walking provides a wide range of benefits including improving health and contributing towards social cohesion and by encouraging people to make short journeys by foot, can also help to reduce congestion and improve local air quality. More local journeys on foot can therefore contribute towards achieving our overarching goals and many of our targets. For short journeys, safe, attractive, clear and direct walking routes allow people to make complete trips without the car and by improving walking routes to bus and rail services can also enable longer trips to be made without the car. Through this LTP we aim to increase the uptake of walking for more journeys.

Lower levels of walking and cycling since the private car became affordable for the majority of people have been associated with an increase in obesity and related health problems. Increased use of the car means individuals are less active and more prone to put on weight. As a result two thirds of adults do not meet the Chief Medical Officer's recommendation for physical activity and almost as many are overweight or obese.

Travelling actively for routine daily trips could allow many more people to have the 30 minutes a day of moderate physical exercise recommended by the Department of Health. Walking and cycling are simple ways for people to incorporate more physical activity into their lives, gradually increasing fitness. With regular walking or cycling evidence suggests people are less likely to suffer from heart disease and high blood pressure and, according to The British Medical Association, exercising for only 30 minutes per day can significantly add to life expectancy. A healthier more active workforce also has benefits for business through reduced absence and increased productivity.

Poor air quality has strong links with poor health and is clearly associated with respiratory health problems, particularly for those with asthma. Modal shift away from the private car will contribute significantly to reducing air pollution, particularly in local urban centres.

Smarter Choices

Smarter Choices are measures that aim to increase sustainable travel and reduce carbon emissions by influencing individual travel behaviour and making alternatives to driving alone more appealing. Smarter choices measures are closely linked to improving information for travellers through Intelligent Transport Systems such as Real Time Passenger Information and the use of Variable Message Signs. For more information on this technology see page 4-8.

Smarter Choices contribute to the goals of this Local Transport Plan by encouraging people to reduce their travel where possible and to use more sustainable modes of travel, thereby helping to ease congestion and the harmful impacts this has on the environment. Smarter Choices can also help to improve people's health by encouraging active travel, contribute towards the transition to low carbon living, help people to save money by using less costly means of travel, and enhance social inclusion, for example through cycle buddy groups or car sharing networks.

Smarter Choices are implemented through measures which seek to inform, promote and incentivise the uptake of sustainable travel options. The measures include:

- Sustainable travel information and awareness raising (see page XX)
- Promotion campaigns (see page XX)
- Car clubs and car sharing (see page XX)
- Technology such as electric vehicles
- Travel planning (see page XX)
- Smarter working and living (see page XX)

For Smarter Choices measures to have the greatest effect, the benefits need to be 'locked in' with other sustainable transport initiatives, such as improved walking routes, cycling facilities, bus priority measures and parking controls.

The case for implementing Smarter Choices is supported by a successful pilot project where programmes were implemented in three towns in England. These **Sustainable Travel Towns** produced the following positive changes as a result of intensive programmes:

- 9% reduction per person in car driver trips
- 10-22% increase in bus trips per person
- 26-30% increase in cycle trips per head
- 10-13% increase in walking trips per head

This published evidence supports the investment in measures that influence travel behaviour and make a significant contribution to reducing the amount of travel made by private cars in Cambridgeshire.

Since this is a relatively new policy area, new ideas are frequently being generated. With this in mind, we will promote and implement innovative measures that contribute to our objectives as opportunities arise. To facilitate this, the County Council will continue to participate in regional and national groups such as the **ACT Travelwise Group**, particularly where partnership working may offer economies of scale, in marketing campaigns or purchasing equipment.

Technology

Technological advances such as the availability of electric cars and battery charging points can also provide benefits, particularly in terms of air quality improvements and will be supported through this strategy. In Cambridge, charging points for electric vehicles are being trialled in some of the city's car parks. This scheme will be monitored and if successful, may be extended more widely.

Support the introduction of car clubs across the county and encourage usage when travel alternatives are unavailable

Rationalising car use is a key component to meeting this challenge. Many journeys in Cambridgeshire are made by individuals driving alone, and could be made more sustainably by increasing vehicle occupancy. This can be via:

1. Car clubs - membership schemes which operate in a similar way to car hire
2. Car sharing – either formal schemes or informally with neighbours, friends and family

Car clubs have been found to reduce the average mileage of members by around one third, reduce demand for parking, promote low carbon lifestyles and increase a sense of community. On average, each car club vehicle takes five private cars off the road. **Streetcar** operates a car club within Cambridge, which has had positive results such as a relatively large and increasing membership, and an average usage in December 2009 of 88%.

In partnership with the District Councils and operators, we will continue to support the operation and expansion of car clubs in line with demand, particularly in new developments, through negotiations with developers. Car clubs are also encouraged for private businesses, as well as private memberships, through the **Travel for Work Partnership**. Businesses that currently operate company cars can use the services of a car club operator instead. This can reduce fleet management time and expense, and result in a more efficient use of business vehicles. Such schemes can be cheaper for companies that pay employees to use their own cars or pay for taxis. It can contribute to companies' travel plans by reducing car-parking levels, congestion around offices and encouraging employees to travel to work by means other than a private car.

We are committed to looking at the feasibility of introducing car clubs to some of our larger market towns through our Market Town Transport Strategies. Car clubs will only operate effectively where there is sufficient demand and this is something that we will investigate.

Case Study: Streetcar in Cambridge

To use a Streetcar vehicle you need to register as a member and can then book a car, either online or by telephone, for as little as half an hour. Hiring a car includes fully comprehensive insurance and 30 miles of petrol a day. When you return the car, the onboard computer records how much time you kept the car for and how many miles you covered, and payment is taken from a registered credit or debit card 24 hours after the end of your booking. 14 vehicles, including a van and MPV are now available for hire in locations across Cambridge including:

- Queen Anne Terrace car park
- Park Street car park
- Great Eastern Street car park, off Mill Road
- Adam and Eve Street car park, off East Road
- Addenbrooke's Hospital car park

For further information see the **Streetcar website**

Car sharing, either formally or informally reduces fuel costs, congestion, air pollution, stress and parking demand. The effectiveness of car sharing is greatest when it is targeted at the daily commute, where single occupancy car use and congestion are most prevalent. The **CamShare** programme in Cambridgeshire provides a free online matching service to encourage car sharing by connecting people who are making similar journeys. Membership of this scheme continues to grow rapidly and remains an important element of this strategy. CamShare is also promoted by the **Travel for Work Partnership** for 'private business groups' to encourage car sharing with colleagues to a place of work.

In some of the more rural parts of Cambridgeshire, accessing key services and facilities without using a private car can be challenging. Car sharing in these areas could improve access to urban centres, and for example, provide greater employment opportunities from more isolated areas. As part of this strategy we will promote car sharing - both formally through CamShare, and informally by raising awareness of the benefits of sharing journeys with family, friends and neighbours.

Support our travel planning programmes working with businesses, developers, schools and individuals to promote sustainable travel

Travel plans, which are a requirement of new development, are a useful tool which set out possible options for changing travel behaviour by exploring ways to minimise travel and become less dependent on car use. We are committed to developing and implementing travel plans as a key mechanism to promote sustainable travel modes as viable and attractive alternatives to the private car.

This section sets out how we will continue to implement all types of travel plans in liaison with developers, existing workplaces, District Councils, the Travel for Work Partnership and other partners.

There are several types of travel plan, the most common being personalised, residential, school and workplace. Each type of travel plan typically contains a range of possible measures, such as:

- Travel information packs
- A site Travel Plan Coordinator
- Cycling and Walking Buddy Groups
- Car and bicycle pool schemes
- Free or discounted travel passes, bicycle equipment, etc.
- Car clubs and car sharing schemes

- Homeworking and home deliveries
- Cycle training and parking facilities

Personalised travel planning

Personalised travel planning aims to reduce single occupancy car use by preparing tailor-made travel plans for individuals. It can cut car driver trips and increase sustainable travel. In Cambridge, a pilot personalised travel planning project was carried out in 2008 in Orchard Park, a new development in the north of Cambridge. As a result of this intervention, 35% of respondents reduced the number of single-occupancy car trips they made. These results could support the creation of similar future projects in Cambridgeshire, where funding can be secured.

Personalised travel planning is generally most effective where there is good public transport, because an attractive alternative to driving is available. Particularly suitable areas also have good local facilities, a pleasant environment for walking and cycling, and a local recognition of traffic as a problem. These factors will be taken in to account when considering possible locations for future project work. Owing to the costs of personalised travel planning, it is most likely that it will be considered as part of a new residential development, where funding can be secured from developers.

Residential travel planning

A residential travel plan is a package of measures designed to increase sustainable travel at a residential development. Residential travel plans also help to improve accessibility, enhance social inclusion and reduce transport emissions. Although similar to personalised travel planning, when looking at whole residential areas, the information is tailored to the area, rather than each individual's travel patterns. In partnership with the District Councils we are developing, the **Cambridgeshire Residential Travel Plan Guidance**, which will help district planning authorities to request residential travel plans for new developments. The Guidance not only stipulates what should be included in the Residential Travel Plan but also the monitoring and long-term sustainability requirements.

School travel planning

The school run is a significant contributor to peak time congestion, particularly in urban areas. School travel plans are an increasingly popular and important tool for addressing this problem. They aim to improve safety on school journeys and reduce school run traffic. In 2003, the DfT unveiled the **Travelling to School Initiative**, which set a target of all schools having a school travel plan by March 2010. As of 2010, 100% of Cambridgeshire's state schools and five of Cambridgeshire's 39 independent schools had a travel plan. A well-developed programme of school travel planning measures can reduce school-run traffic, improve road safety, increase children's independence, improve child health and enhance social inclusion. The County Council's full approach to encouraging sustainable school travel is set out in the **Sustainable School Travel Strategy 2007-2012**.

Since almost all schools now have a school travel plan, the challenge for this strategy is to continue to promote the importance of implementing, monitoring and updating them as new pupils join the school.

Workplace travel planning

Workplace travel plans aim to encourage more sustainable travel to, from and for work as well as promoting sustainable travel to site visitors. They can reduce car use, increase public transport use and active travel, enhance social inclusion, improve staff recruitment and retention, bring financial savings and reduce noise, congestion and pollution. As part of our own commitment to workplace travel planning, the County Council has developed travel plans for a number of our sites around

the county. For example, the Shire Hall travel plan from 2006-9 reduced single occupancy car use to the site and increased cycling and uptake of flexible working arrangements.

The County Council also secures workplace travel plans through the planning process for new employment-led developments and by encouraging organisations to voluntarily implement them.

In Cambridgeshire, the County Council and the district councils support the **Travel for Work Partnership** (TfW). This is an independent partnership set up to encourage organisations to develop workplace travel plans and reduce car use on the journey to work. The main features of TfW are free membership, free expert travel plan advice, a free annual travel survey, help in preparing and launching initiatives and employee discounts at cycle shops and on train tickets. In 2010, 88 employment sites were members of TfW, with sustainable travel measures reaching 59,383 employees.

Travel Plan Plus Project

In 2008, the Travel Plan Plus project was launched by the EU using four pilot municipal areas, including Cambridge. This was inspired by a desire to reduce transport's significant contribution to greenhouse gas emissions. In Cambridge, this project has focused around the Science Park area, aiming to encourage the uptake of workplace travel plans. This involves encouraging a modal shift away from single-occupancy car use and particularly towards cycling and public transport.

Smarter working and living

Smarter working and living measures aim to reduce the need to travel and can also help to promote the transition to low carbon living. They play an important role in travel planning and include:

- Home shopping, which is a smarter shopping choice as goods are delivered more efficiently than separate households making individual journeys.
- Teleworking, where people work from home or closer to home for some or all of the time. This reduces commuter trips, improves organisational performance, reduces absenteeism, improves staff retention, improves work-life balance and reduces office costs.
- Teleconferencing, where meetings are carried out by media such as telephone and internet. This reduces business travel, bringing cost and time savings, improves organisational efficiency, improves work-life balance and enables people with disabilities or family commitments, for example, to contribute more easily to meetings.

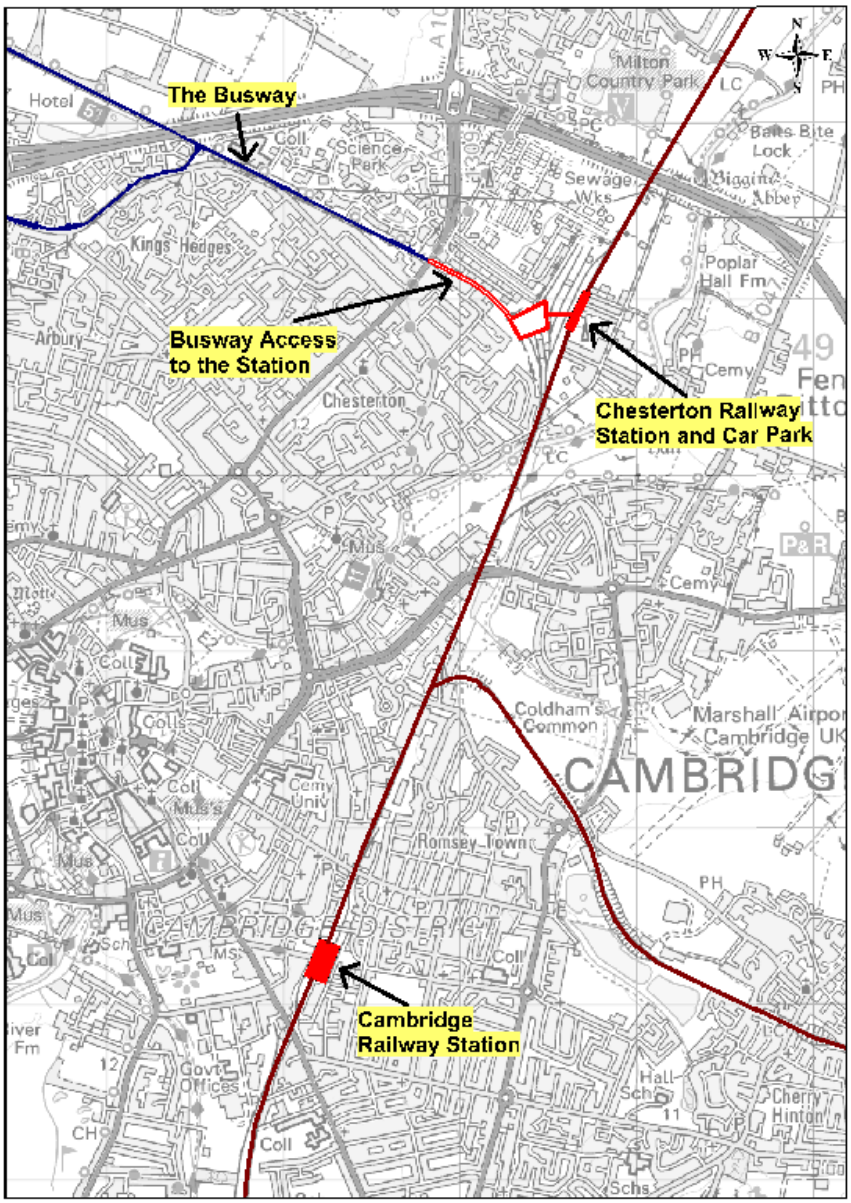
Encouraging smarter working and living, forms a part of this strategy but is likely to be the least prominent tool. This is because the policy focus remains on reducing car use on commuter journeys when there is the greatest opportunity to encourage mode shift through the promotion of walking, cycling and public transport use.

Major Scheme – Chesterton Interchange

Chesterton Interchange is a proposed new railway station on the site of the former Chesterton permanent way depot to the north of Cambridge. It is close to the Cambridge Science Park, St.John's Innovation Centre and Cambridge Business Parks and the A14 trunk road, as shown on Figure 4.9.

The scheme would improve interchange between walking, cycling, bus and rail and reduce the level of traffic congestion in Cambridge as it would attract many journeys by car that would otherwise be made to the rail station near the city centre.

Figure 4.9. Location of the proposed Chesterton Interchange



Proposed Scheme

The new station would have through platforms and a bay platform, a 400 space parking area and a connection to The Busway. Stabling sidings are likely to be provided by Network Rail for passenger and freight trains on an area that is largely a disused rail siding.

Scheme Objectives

The Chesterton Interchange will deliver the following objectives:

- Provide an interchange facility which forms an integral part of the high quality public transport network for Cambridge and the surrounding area, including connections between rail and The Busway;
- Provide a public transport alternative to the private car for local and regional trips to and from the Science Park and local residential developments, integrating public transport provision with urban development thus promoting non-car modes of travel; Provide a public transport

alternative to the private car for European and International trips via Eurostar at Kings Cross, Stansted Airport and, post Thameslink 2000, Gatwick Airport;
- Remove car trips from the Cambridge central area to release decongestion benefits and improvements to air quality and noise;
- Provide a parking resource away from Cambridge city centre potentially in conjunction with park and ride services.

Figure 4.10. Impacts of Chesterton Interchange

LTP3 Objective	Impact	Description
Managing and delivering growth	Positive	• Will provide significantly improved accessibility to rail network for major growth developments in north and west of Cambridge and for proposed new town of Northstowe.
Promoting improved skill levels and economic prosperity across the county, helping people into jobs and encouraging enterprise	Positive	• Interchange will improve accessibility to nearby Science Park and business parks, one of Cambridgeshire's most important economic hubs • Reduced traffic in city will lead to reduced congestion, benefiting the local economy • Benefit/Cost Ratio (BCR) for the scheme is 3.16
Meeting the challenges of climate change and enhancing the natural environment	Positive	• Reduced traffic in city leads to less congestion and reduced carbon emissions. • Significantly improved sustainable transport access to Science Park and business parks. • Improved air quality in city as a result of reduced traffic levels. • Any contaminated land will require removal • Appropriate measures to protect the site's proximity to the River Cam will be taken.
Enabling people to thrive, achieve their potential and improve their quality of life	Positive	• Interchange would improve accessibility to rail network for those living in/to the north of Cambridge • Bus and cycling links will ensure sustainable transport access to rail network will be significantly improved for those living in/to the north of Cambridge. • Station will fully conform to the Disability Discrimination Act standards
Supporting and protecting vulnerable people	Positive	• Secure station accreditation will be sought • Reduced traffic in city should reduce number of accidents

Expenditure Profile

The business case for the scheme indicates a benefit/cost ratio of 3.16 and suggests that the station will be a commercial proposition in respect of its set up and running costs. The construction costs of the scheme will be in the order of £25m which will include the station, bus interchange, bus route from Milton Road, car parking, overhead electrification, track and signalling works.

The cost expenditure profile is shown in **Figure 4.11**:

Figure 4.11. Chesterton Interchange expenditure profile

Year	Expenditure
1	£200,000
2	£1,600,000
3	£10,300,000
4	£12,900,000
Total	**£25,000,000**

Update on Progress

Feasibility studies for the scheme have been completed and the preferred option has emerged from this work. The Major Scheme Business Case was submitted to DfT in 2009. However, the Government's Major Scheme Guidance has been suspended and therefore no funding has currently been secured.

Work has been ongoing with Network Rail to investigate how the station will fit in with the proposed stabling for passenger trains and the freight terminals at the sidings, which has shown that all the proposed uses can be accommodated on the site.

The preliminary design now needs to be taken forward to the point where a planning application can be submitted but this will be subject to the identification of further funding.

Other policies and initiatives that impact on this challenge

- Planning Policy Guidance 13: Transport **PPG13**
- Planning Policy Statement 4: Planning for Sustainable Economic Growth **PPS4**
- Planning Policy Statement 7: Sustainable Development in Rural Areas **PPS7**
- Draft Planning Policy Statement: Planning for a natural and healthy environment **Draft PPS**
- Draft Planning Policy Statement: Planning for a low carbon future in a changing climate **Draft PPS**
- **Planning for a Sustainable Future 2007**
- Local Plans / Local Development Frameworks
- **Green Infrastructure Strategy** 2006
- A second edition of the Green Infrastructure Strategy for Cambridgeshire is currently being developed and is due to be completed in 2011
- **Sustainable Travel Demonstration Towns programme**
- **Cycle Demonstration Towns Programme**
- **Cambridgeshire Residential Travel Plan Guidance** (yet to be adopted)

Challenge 4: Future-proofing our maintenance strategy and new transport infrastructure to cope with the effects of climate change

Vision

Our vision is to ensure that our transport network and infrastructure are resilient and can adapt to the effects of **climate change**.

Barriers

The barriers to addressing this challenge are as follows:

- Rising global emissions
- Uncertainties regarding the exact nature of the effects of climate change and when these will occur – changing conditions could include:
  - Hotter drier summers
  - Warmer wetter winters
  - Increased flooding
  - Other extreme weather events
- Availability of technologies to implement or maintain new infrastructure

What we will do to overcome these barriers

- Follow established risk management procedures
- Identify priority areas for adapting to climate change
- Give early consideration of climate change in scheme design, such as flood management measures
- Keep up to date with latest research and climate projections and use this information to inform the development of priority actions and action plans.
- Develop an action plan setting out the actions required for the transport network to adapt to climate change
- Influence the policies of Government and other agencies and organisations
- Implement the Council's Adaptation Action Plan, once the Plan is adopted
- Set up a process for monitoring and review to ensure progress with each measure
- Ensure new infrastructure is designed and built to withstand the projected impacts of climate change (e.g. use of suitable/sustainable building materials to withstand flooding and/or high summer temperatures)
- Plan for more frequent positive inspection and intervention programme for highways infrastructure
- Plan expenditure and future planning to allow investment in infrastructure that will be resilient to long term climate changes
- Explore the use of new technologies and designs to limit the impacts of future anticipated climate changes (e.g. permeable paving, sustainable drainage systems)

Background

How vulnerable a society is to climate change is an important factor when considering adaptation. Climate change will not impact on all societies equally – so the potential impacts and risk posed to a specific area must be considered accordingly.

Climate change impacts in the UK are likely to include hotter, drier summers, milder, wetter winters and increasing sea levels – all of which will be particularly significant for Cambridgeshire. However, exact impacts are difficult to forecast. As one of the driest areas in the UK and a low-lying region, Cambridgeshire will be susceptible to both water shortages and flooding in the future. Appropriate adaptation policies and actions will therefore be important in minimising the impact of climate change on all aspects of the County.

Risk management

In planning to adapt to climate change, Cambridgeshire County Council is aiming to ensure that it is prepared to manage risks to individuals, communities and businesses from a changing climate, and to make the most of new opportunities that arise. As part of this process, we have developed an adaptation action plan to take the necessary steps to achieve the existing objectives set out in council strategies, plans, investment decisions and partnership arrangements in light of projected climate change.

The next step in the process is to implement the adaptation action plan and establish a process for monitoring and continuous review to ensure progress with each measure. We need to work jointly with partners such as the police, fire service and the district councils to achieve this.

The County Council is committed to ensuring that the potential impacts of climate change on its service delivery are understood and appropriate responses are developed. The methodology that the Council has adopted and begun to implement includes:

- Undertaking a comprehensive risk assessment of the Council by exploring climate risks and opportunities, now and in the future, across all Council functions
- Identifying priority areas for adaptation and developing adaptation responses to identified impacts where appropriate
- Drawing together an adaptation strategy and action plan for the Council for managing climate risks in the long term
- Starting to take action in identified priority areas and ensuring that the processes of implementation and continual assessment are established

Identifying priority areas for adapting to climate change

The vulnerability of the transport network and infrastructure to a changing climate is varied. An indication of the type of risks that could occur is outlined below. Risks such as these have the potential to severely disrupt accessibility, damage infrastructure and compromise the safety of passengers and road users. Therefore the County Council is assessing the risks posed to its transport network and infrastructure and will work with its partners, including Emergency Planning bodies to explore and implement adaptive actions and build resilience in priority situations.

Roads and pavements

- Subsidence, heave and landslips due to drought and lower water tables
- Surface damage to roads and pavements due to heat waves and flooding
- Longer growing seasons and increased verge / embankment maintenance due to increases in average daily temperatures

Cycling and walking

- Damage to pavements and cycle paths due to heat waves and flooding
- Flooding of pedestrian subways

Buses/trains

- Modal shift away from bus and train use due to discomfort from increased temperatures

Buckling and flooded railways/The Busway

- Network failures due to flooding including flash flooding
- Risks to passenger safety

Structures

- Embankments and bridges at risk from instability due to heavy rainfall and flooding
- Risk of movement from lightweight structures and street furniture due to heavy rainfall and high winds

Maintenance

As detailed on page xx, it is essential that our road maintenance policies and procedures are developed to adapt to a changing climate. This includes **winter maintenance**, tree planting, grass cutting and the types of materials used. Our **Highways Policy** is regularly updated, and as there is more certainty about how climate change will impact on our transport network, it will be reviewed to take account of the changing conditions. We are also responsible for managing road drainage from roads on our network. Therefore it is important that we keep up to date with latest climate projections and research to inform our policies and practices.

New infrastructure

New transport infrastructure such as cycleways, roads and bus lanes need to be designed and built with climate change in mind. Infrastructure needs to be resilient to the likely impacts of climate change such as flooding and subsidence (from drought). The design of new infrastructure will consider these issues alongside future maintenance liabilities in a changing climate. We will work with the Environment Agency, Local Planning Authorities and Internal Drainage Boards to ensure new developments are designed and built with to take account of the likely future impacts of climate change.

Other policies and initiatives that impact on this challenge

- National climate change strategy and measures
- UK wide climate change risk assessment every five years
- Land-use and planning policies such as Local Development Frameworks
- Developers and house-builders

Challenge 5: Ensuring people – especially those at risk of social exclusion – can access the services they need within reasonable time, cost and effort

Vision

That no one in the county is unable to access the services and facilities they need to participate in community life, take advantage of life choices and to lead a healthy lifestyle because they do not have access to a car.

Barriers

- Lack of public transport availability and flexibility, particularly in rural areas and in the evening
- Journeys by public transport too long or unreliable
- Transport options do not always provide whole journey solutions
- Lack of information about transport options
- Lack of safe cycle routes to bus stops, facilities and services in rural areas
- Misconceptions about alternative forms of travel such as community transport schemes
- Cost of using public transport
- Services not available in accessible location or at convenient time
- Lack of provision for people with reduced mental or physical capacity to travel by public transport
- Ageing population and concentrations of young populations, for example in Cambourne
- Declining local facilities, particularly in rural areas
- Lack of rural employment opportunities

What we will do to overcome these barriers

- Negotiate with developers to ensure both transport and service infrastructure is provided as part of new developments
- Provide socially necessary (contracted) services where funding permits
- Continue to support development of the Community Transport network
- Draw up a Rural Transport Strategy to address the specific challenges that relate to the rural areas of the county
- Provide better information on travel options and publicise the availability of community transport
- Work with service providers to be innovative in the way services are delivered locally
- In the longer term investigate and pilot demand responsive transport schemes
- Promote sustainable networks for walking and cycling

Negotiate with developers to ensure both transport and service infrastructure is provided as part of new developments

We will continue to prepare S106 agreements covering developer contributions towards county services including education, waste, transport and community infrastructure, to ensure that they are well planned, suitably funded, and delivered in a timely and sustainable way. Although this covers only new developments, it will play an important role in making sure that services and facilities are provided close to where people live.

Provide socially necessary (contracted) services where funding permits

As stated in Chapter 3 commercial routes do not cover all the needs of bus users in Cambridgeshire, particularly those lightly used routes which operate in rural areas, the evenings or at weekends. Where funding allows, and following strict criteria set out by a cabinet approved County Council process, we invite operators to tender for contracted services.

Contracted bus services are run by bus operators to service specifications set out by the County Council. The Council pays the operator the difference between the operating cost and the income from fares on these services. Contracted services are only provided where no suitable commercial service exists. Currently Cambridgeshire County Council provides funding of £2.77m for the provision of contracted bus services, which equates to around 20% of all bus services in the county. Our contracted services complement the provision by community transport services to provide much greater bus service provision than is delivered by commercially run services alone. However, this funding is likely to come under particular pressure in the next three to four years, which may impact on our ability to subsidise bus services in the county.

The Bus Service Operators Grant (BSOG) will be reduced by 20% from 2012. This may impact on the viability of some bus and Dial-a-Ride services and due to the current financial climate, the County and District Councils may not be able to support any affected services.

Continue to support the development of the Community Transport network

In conjunction with the District Councils and third sector partners including Care Network Cambridgeshire and the Volunteer Bureau, we offer assistance and support to a range of community transport schemes throughout the county as well as cross-border partner schemes. While all bus operators will be required to operate low floor vehicles on all services by 2015, these schemes are aimed at people who have difficulty using or accessing public transport, for example because of age, mobility difficulties or disability, and those who live in areas with limited or no access to conventional public transport. By providing essential transport to key services, social and leisure trips, Community Transport has a key role to play in addressing this challenge, therefore contributing particularly to the Council's Strategic Objectives 1, 2 and 4. The Councils work closely to influence, encourage and help Community Transport operators, but do not govern the provision of services.

Many areas without conventional public transport have community transport schemes that operate on a more flexible, demand responsive basis and are usually operated by dedicated volunteers. These types of services offer an important transport option, particularly in rural areas where people can live large distances from key services such as health and education provision, as well as leisure and recreational facilities. Here, more innovative approaches to public transport provision are utilised in order to meet the needs of the rural population and enhance equality of opportunity for both essential and non-essential journeys. They include:

- **Dial-a-ride**
- **Rural Hoppa services**
- **Shopmobility schemes**
- **Taxicard schemes**
- **Hiring Community Transport vehicles**
- **Voluntary car schemes**

Progress to Date with Community Transport schemes

Figure 4.12 illustrates the current community transport provision in Cambridgeshire. A very high level of coverage has been achieved with 97% of parishes in Cambridgeshire having access to a Community Transport scheme. However, it should be noted that all schemes operate different

services, for example some do not operate in the evenings or at weekends, while others do not cater for hospital journeys. Despite this, in the year up to April 2009, 86,000 journeys on dial-a-ride services and over 27,000 journeys undertaken by community car schemes were recorded.

Figure 4.12. Community Transport Schemes in Cambridgeshire (2009)

	Dial-a-ride Schemes	Community Car Schemes	Shopmobility Schemes	Minibus Hire	Taxicard Schemes	Community Buses	Rural Hoppa
Cambridge and South Cambridgeshire	3	26	1	3	4		
East Cambridgeshire	3	4	2	3		1	
Huntingdonshire	2	14	2	2			3
Fenland	2	10	1	2			

Through the national concessionary fares scheme, bus pass holders are currently able to travel at a subsidised rate on many dial-a-ride and Rural Hoppa services but this varies considerably across the county and is dependent on local decisions made by the District Councils. Responsibility for administering concessionary fares will transfer from the District Councils to the County Council in April 2011 and agreement on how community transport subsidies will be addressed in the countywide scheme should be in place by January 2011. There is a County Council aspiration to provide a subsidised and equitable scheme for concessionary bus pass holders across the county.

Case Study: Whittlesey dial-a-ride and car scheme

In the Whittlesey area a new dial a ride service and car scheme were both launched in 2009.

In Fenland there are three layers of passenger transport – public transport, Dial-a-Ride and Community Car Schemes. An assessment was carried out by Fenland Strategic Partnership to detail which type of transport served which areas. The results of the assessment showed that residents of the Whittlesey area relied on public transport and did not have access to either of the other two options. This left gaps for people who were older, had a disability or had difficulty getting out and about. Further research was carried out to find out from local people whether they wanted or needed dial-a-ride or community car schemes.

In October 2009, a pilot scheme was introduced in partnership between Fenland District Council, the County Council and FACT (Fenland Association for Community Transport). The statistics below show a steady increase in passenger numbers using the scheme.

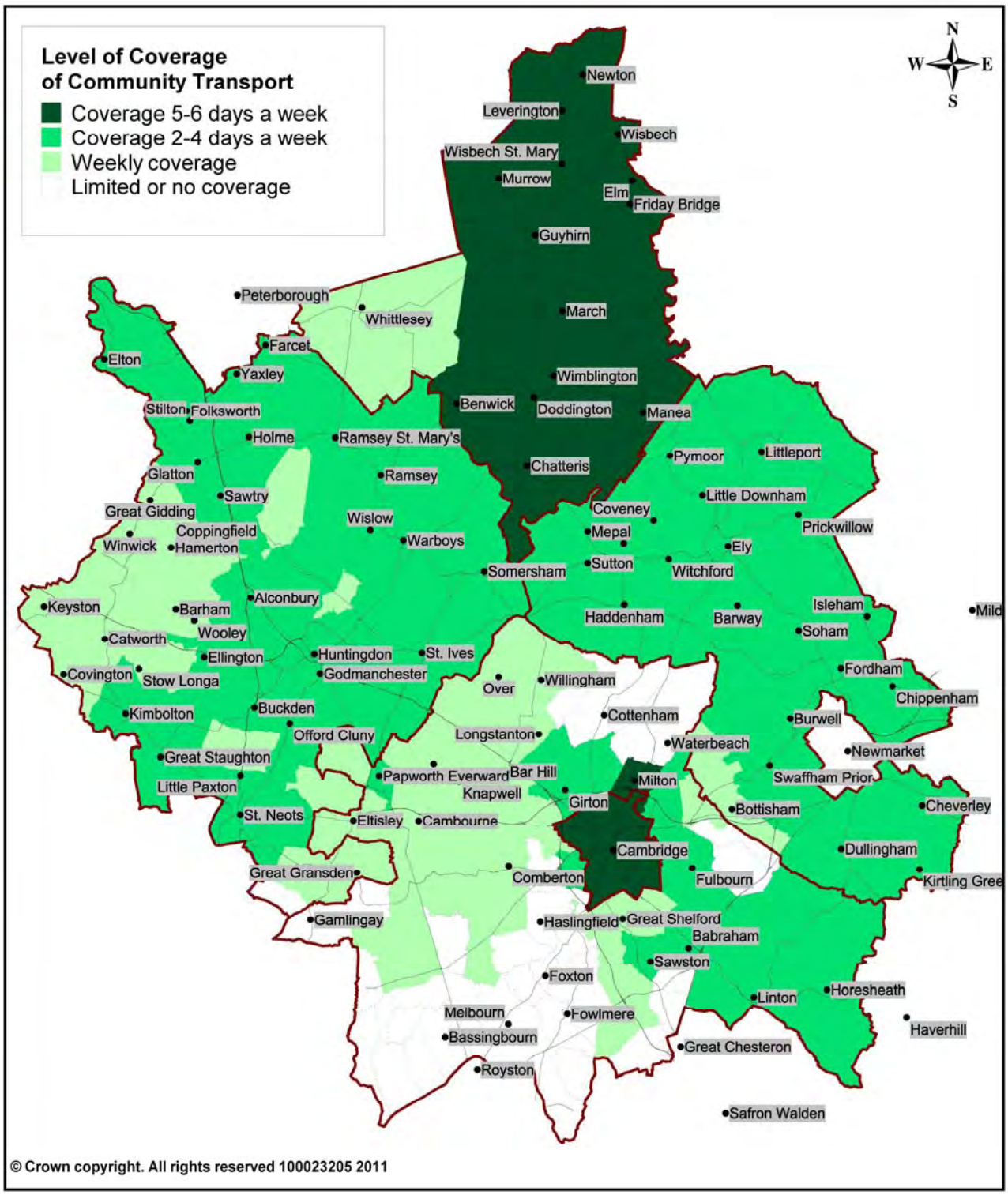
	2009			2010											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Passengers	16	42	69	55	58	60	80	76	89	110	89	105	101	106	

Next Steps and future plans?

The next steps will be to review the project in 2011. At the moment it is continuing to establish itself and hopefully the project will continue.

Figure 4.13 illustrates the coverage of community transport in Cambridgeshire.

Figure 4.13. Coverage of Community Transport Schemes in Cambridgeshire



In 2009, the County Council introduced the Cambridgeshire Minibus Brokerage Scheme (CaMBS) which makes Community Transport and Social Services minibuses available for any Cambridgeshire based not-for-profit organisation, group or club to hire. The Community Transport operators are currently working on business plans to enable them to maximise vehicle utilisation and capacity, and to be in a position to bid for public sector contracts, for example from Social Services and school transport, and may also be able to provide tailored services in rural areas and market towns, helping to reduce social exclusion. This will enable operators to increase the number of journeys undertaken per vehicle journey made. Expansion could also be achieved by

encouraging smaller car schemes to expand through driver recruitment, enabling them to undertake more journeys.

During the period of LTP3, we have aspirations for the immediate, medium and longer-term delivery of Community Transport services throughout Cambridgeshire. Foremost, we wish to continue to provide the level of support given to Community Transport initiatives throughout the county, namely grant revenue support to dial-a-ride service operators, plus a mileage-based subsidy with additional insurance cover to community car schemes. We aspire to parity of access to free subsidised transport. However, this funding will come under pressure in the coming years.

In considering the longer term, it is necessary to anticipate population and demographic changes, plus proposed national policy changes that may have an impact on the client base of Community Transport and therefore affect the demand for their services and how in the longer term services could be delivered. For example, the way in which Social Services-commissioned services are funded is changing, as part of a national initiative currently being rolled out. This enables people with care needs to spend a Personalised Budget and will provide users of schemes more choice in when, where and how they travel. However, this shouldn't have a big impact on Community Transport as 15% of older people receive statutory social care, so 85% of the older population will be unaffected by this change. Furthermore, as referenced in chapter 3, the older population in Cambridgeshire is forecast to rise over the coming years. This may provide further opportunities for community transport.

We also wish to assist operators to develop the image and range of services they run in order to appeal to a wider customer base from all sections of the community. Promotion of Community Transport schemes is key to their continued success and will form an essential part of our future strategy. Where possible, we will provide incentives to encourage growth in patronage among Community Transport schemes particularly among smaller operators. One example under consideration is a "pump priming" scheme which provides a combination of loans and small grants enabling Community Transport operators to invest in developing their services, for example purchasing new vehicles. We will also continue to encourage operators to develop and maintain Business Plans and to commit to Joint Trading Agreements.

In summary, to achieve the future development of community transport provision, we will:

- Continue to recognise and support Community Transport as a key partner in helping to fill the gaps in public transport provision throughout the county offering flexibility and choice
- Develop new and innovative schemes in partnership with the District Councils, CT operators and other stakeholders
- Continue the annual funding support for Community Transport Schemes plus a mileage-based subsidy with additional insurance cover to community car schemes and contributions to scheme administration expenses. However, this funding is likely to come under pressure over the next three to four years, and may be reduced
- Work with community transport operators of schemes to develop Business Plans and Grant Funding Agreements, including looking to hold 3 year agreements between each operator and respective funding partners
- Publicise Community Transport at a county level using the County Council and District Council websites, parish newsletters and Community Transport Guides, plus promotional events, and launches of new initiatives
- Continue the publicity drive to recruit volunteer drivers
- Continue to support and promote the minibus brokerage scheme
- Encourage the expansion of voluntary car schemes, subject to finding volunteers, drivers, coordinators and Council support

Provide better information on travel options and publicise the availability of community transport

During the period of LTP2, we have greatly developed and improved the quality and availability of our public transport information:

http://www.cambridgeshire.gov.uk/transport/around/

However, there is still scope to make further improvements and to utilise electronic media such as mobile phone texting services and Real Time Passenger Information (RTPI) technology.

Further information on our strategy to improve public transport information can be found on page XX (Challenge 3). In terms of promoting and publicising community transport, we propose to make better use of the County and District Council websites, advertise in parish magazines/newsletters and use published community transport guides. We will also continue to promote community transport more widely through promotional events and launch events when new initiatives are agreed. Publicising community transport schemes will also be linked to the work we do on smarter choices – particularly through travel planning initiatives.

Draw up a Rural Transport Strategy to address the specific challenges that relate to the rural areas of the county

The actions identified elsewhere in this section will go some way to improving accessibility across the county. However, we understand that the accessibility needs vary across the county and that is one of the reasons why we are committed to producing a Rural Transport Strategy during the period of LTP3. We propose that the Rural Transport Strategy would sit alongside the existing market town transport strategies and the Cambridge Area Transport Strategy and encompass many of the issues that were identified in the LTP2 Accessibility Strategy. The development of the Rural Transport Strategy will begin in late 2011[16].

The LTP2 Accessibility Strategy will be superseded by the Rural Transport Strategy which will cover all rural parts of the county whose transport needs are not covered by the market town transport strategies. Importantly the new strategy will build upon the Accessibility Strategy (and its Action Plans) which was limited in its coverage to nine priority wards which were identified at a specific point in time. We will ensure that our Rural Transport Strategy is flexible enough to cover the different needs of different rural areas and is a dynamic document that can address changing needs as they come forward. Addressing those at risk or affected by social exclusion issues will be key to this new strategy.

A Rural Transport Strategy will be developed in the short-term to enable measures to be delivered in the medium to long term. The strategy will be developed in partnership with the district councils and other partners such as the Local Strategic Partnerships to ensure the varying needs of rural areas are fully reflected in the Strategy. The Strategy will also be used to help secure developer funding for schemes in rural areas.

Work with service providers to be innovative in the way services are delivered locally

We realise that the County Council in its role as Transport Authority cannot offer all of the solutions to every accessibility problem and challenge. We need to work more closely with other delivery agencies such as healthcare providers, to ensure services are provided in such a way that transport is not considered a barrier to accessing them. In some instances it is viable for services

[16] The development of the Rural Transport Strategy will be dependent on available resources.

to travel to users – for example mobile healthcare units, or making use of internet-based shopping delivery services.

Making Cambridgeshire Count (MCC) is an initiative involving all of the public services in Cambridgeshire aimed at exploring new ways of working. There is currently a range of pilot projects being taken forward, covering exactly the issues which need to be addressed as part of this LTP challenge. For example, this includes piloting new ways of services working together and a redesign of how public services operate in Cambridgeshire. We intend to use the expertise developed and evidence gained from these pilot projects to inform how the Local Transport Plan can better work with service providers and make innovations in the way services are delivered, so that improving transport availability or accessibility are not considered the only solutions to service delivery. In the future this could include making better use of our own transport.

In the longer term investigate and pilot demand responsive transport

Demand responsive transport (DRT) refers to non-traditional bus services that match services more closely to customer need. Services can either run to a timetable or be entirely matched to demand.

We are committed to investigating the feasibility and potential piloting of demand responsive transport schemes in Cambridgeshire in the future. At the present time, our commitments and funding are focussed on our community transport schemes, see the links on page XX. In examining their feasibility, any DRT schemes would also need to consider the impact on other schemes such as voluntary car schemes.

Promote sustainable networks for walking and cycling

The provision of sustainable networks for walking and cycling are also important for providing access to key services and facilities and promoting low carbon living, which in turn will help to improve health, well-being and quality of life. Further detail on our approach is set out on page xx.

Other policies and initiatives that impact on this challenge

National planning framework/policies

National planning frameworks and policies regarding the location of new homes, employment, education and other services directly impact on this challenge. Present planning policies recommend mixed use developments to reduce the need to travel and to encourage shorter trips by sustainable modes – walking, cycling and bus use. Planning guidance also advocates extensions to existing built up areas so as to maximise the opportunities for linking to existing sustainable travel routes. Further information on planning policies and guidance can be found **here** and on page xx.

Shaping Fenland

Fenland District Council is using a holistic partnership approach to forward planning services and the social, economic, environmental and physical infrastructure that is required. The project involves many organisations from both the public and private sector; these include Go-East, East of England Development Agency, Homes and Communities Agency, Cambridgeshire County Council, NHS Cambridgeshire, Cambridgeshire Horizons, the Policy Authority and the Fenland Strategic Partnership. The work will put forward recommendations on the overall scale of growth, strategic sites to accommodate this growth, and the housing mix of these sites. This work will form part of the evidence base to inform and support the Local Development Framework. The Market Town Transport Strategies for each of the Fenland towns will feed into **The Shaping Fenland** work to ensure that transport issues are adequately reflected.

What's been happening in Fenland?

The Transport and Access Group has developed a substantial evidence-base on local accessibility issues. Fenland has a dispersed population and is rural in nature which makes accessibility problematic in a number of ways. The elderly in particular find accessing services in the larger towns such as Wisbech and March challenging as bus services from villages can be infrequent. Children and Young People have difficulty getting to social activities in the evenings and on weekends; they also have difficulty attending after school activities because they cannot get home afterwards. This is of particular concern in the wards of Manea and Murrow.

The Group produced an action plan for the Second Local Transport Plan and, in 2008, updated this with a second plan to better identify with the aspirations of local citizens. By following this Action Plan the Group will work towards the following objectives:

- Removing transport barriers so that Children and Young People can access transport particularly at weekends and in the evenings
- Removing transport barriers in access to health care to ensure appropriate transport arrangements are available to all
- improve physical transport infrastructure for bus services and raise awareness of their availability to improve accessibility
- Reduce the effects of transport on the environment
- Ensure travel choice for everyone who lives and works in Fenland
- Ensure that infrastructure and services are in place and improved for businesses and visitors

The Group works towards these objectives in partnership with public and voluntary sector organisations. Much emphasis has been placed on developing the evidence-base, and in working with partners to develop accessibility improvement projects. The Group is now undertaking a range of pilot projects that will tackle Fenland's unique accessibility problems. These will be assessed for effectiveness before being rolled out across the district.

Implementation of Plans

Health and transport

- The Group has worked with the NHS to develop a questionnaire aimed at understanding how people access GP surgeries and hospitals in Fenland. The results of the questionnaire will help the Group to provide transport advice and look at improved transport to healthcare appointments.
- The Group is working to establish a dial a ride pilot scheme to Doddington Hospital. If this is successful it is hoped that similar projects may be established in other parts of Fenland.
- The Group has developed maps to show the relationship between where people live, the location of public transport services and the location of GP surgeries, dentists and hospitals. This information is being assessed and is informing the development of options such as the Doddington Hospital pilot scheme.

Public Transport

- During 2010 we have assessed and updated bus stop infrastructure records. This includes where bus stops are located and the infrastructure that is available at stops.
- Evidence base maps have been produced showing the route of bus services and also showing bus stops. Zones or areas of 400 metres from a bus stop have also been plotted to assess how easy it is for people to get to a bus stop.
- Site audits have been undertaken to assess the potential for new bus stops and infrastructure in areas where people are more than 400 metres from a bus stop. We also aim to consider the bus stop infrastructure and public transport information at bus stops in the future.

- We are continuing to work with bus operators to bring about improvements to services; however this is restricted at present due to the current economic climate that has seen reductions in some services and major timetable changes for others. A new bus service for Murrow, one of Fenland's priority areas has however been introduced during 2009.

Community Transport

- Fenland Association for Community Transport launched a new Dial A Ride Service during October 2009. This means that people living in Whittlesey, Coates, Eastrea and Turves now have a new dial a ride service.
- The Care Network has also established a new Community Car Scheme for Whittlesey during 2009.
- Targeted marketing has also been undertaken and is ongoing using the map based evidence. This is to ensure that households that do not live near a bus stop or a bus service have been provided with information about community transport.

Market Town Transport Strategies

- During 2009 and 2010 we provided comments to Cambridgeshire County Council to support the development of the Chatteris Market Town Transport Strategy
- In October 2010 the Transport and Access Group agreed to act as the Stakeholder Steering Group to support future Market Town Transport Strategy work during 2011, 2012 and 2013. New stakeholders and other organisations will be invited to join the TAG for specific items to support the work. This role ensures that all key stakeholders are taking an active role in the development of future strategies. The Group will also be responsible for establishing a new monitoring procedure for the strategies and ensuring that progress is made.

Children and Young People

- We are also in discussion about establishing a pilot scheme to improve access for children and young people in the evenings and at weekends. Work is ongoing to set up the pilot projects including agreeing processes and procedures to meet statutory requirements. We are hoping to establish two pilot projects during 2011.
- It also hoped that we can build on the approach extending the concept to the education system for after school clubs. This is particularly important for children and young people who live in villages.

Rail

- We are continuing to have discussions with the train operating companies about increasing the number of services from Manea and Whittlesey. Due to further changes that are expected during 2012 we will be working hard during 2011 to influence the Government and potential new rail franchise bidders to provide this increase in service.
- We are is developing a project plan and working with key stakeholders to look at establishing a Community Rail Partnership. The aim of this project is to improve communication between rail passengers, the local community and the rail industry. This is with the aim of improving stations, improving services, improving public transport information, increasing passenger numbers and providing better access to the railways. Site audit work has been undertaken at each station and we are looking at developing a Station Investment Plan.

What's been happening in Huntingdonshire?

Huntingdonshire District Council drew up an Action Plan with the following general objectives:

General

- To ensure access to transport for all
- To ensure a range of appropriate transport options are available for people to use to access work, training and leisure
- To ensure bus timings provide most sensible and convenient options for users
- To improve availability of and understanding of transport information

Accessing Services

- To provide the means for appropriate access to health services and support for all
- To ensure appropriate access to local retail provision
- To improve access to and sharing of community service information
- To improve understanding of current and future transport and access issues at the local level

Disabled People

- To ensure people not only have access to information of services but the knowledge and ability to contact the services
- To ensure people with disabilities have the same ability to access services
- To ensure the needs of priority groups are considered in future house planning
- Young People
- To ensure young people are able to access jobs and work experience
- To encourage young peoples active involvement in consultation and decision making affecting their area

Objectives Relevant to Specific Communities

- To provide the option of public transport to the Bythorn community
- To provide the option of a weekly service to St Neots and monthly service to Peterborough for the Catworth community
- To ensure up to date timetables and information on transport options is available to Ellington community
- To identify need for facilities for young people in Spaldwick
- To provide appropriate access to public transport to meet the working needs of Folksworth residents

Implementation of Plans

Implementation of the Action Plans has commenced, with the first action being the provision of enhanced Community Transport provision across all four wards over a three-year period from 2007/08, with a financial plan for continued viability of the scheme beyond the period of LTP2 funding.

In 2008/09 further work was undertaken, including:

- Training for transport staff to help those with disabilities.
- Communications / information to promote accessibility to local news and participation in it through promotion campaigns and the purchase and installation of dispenser systems for local papers.
- Promotion and development of health access issues.
- Purchase and installation of notice boards.
- Promotions, printing and analysis work for Parish Plans.
- Community Access Point development and promotion.
- Improved information / installation at bus stops.

- Contribution towards the purchase of Community Services Outreach Vehicle.
- Parking provision in Kimbolton High Street - monitoring of trial scheme and Traffic Regulation Order.

What's been happening in East Cambridgeshire?

An Action Plan for Isleham and the Fordham villages was formally adopted by the East Cambridgeshire Transport and Access Group (TAG) at the end of 2009.

Actions implemented include:

- Part funding of an additional bus for Ely Soham Dial-a-Ride
- Setting up a new social car scheme specifically for Isleham and the Fordham villages
- Production of a transport leaflet showing all the transport options in the villages and delivered door-to-door with the Parish magazine.
- Extension of the Fenland Express service to the Cambridge Sixth Form Colleges.

In addition to this, Ely Soham Dial-a-Ride is operating a market day shopping service into Ely from Isleham, with support from Isleham Parish Council. A similar service from Burwell to Ely was started in the spring of 2010.

Other transport development work in East Cambridgeshire:

A review of rural transport was carried out during the winter of 2009/2010.

Young People

East Cambridgeshire District Council is funding transport to the Beat the Rap project. Young peoples' views on transport issues are being sought via a questionnaire on the buses and this information will be shared with other parties when complete.

Rail

- The County and District Councils are working with Network Rail and National Express East Anglia to investigate the feasibility of opening a new station at Soham.
- The County and District Councils are working with Network Rail and National Express East Anglia to identify an action plan for improvements to the interchange facility at Ely rail station.

Implementing the Ely Market Town Transport Strategy

- Additional cycle parking has been installed in Ely city centre.
- The High Barns to Lynn road cycle link will be completed by the spring of 2011.

What's been happening in South Cambridgeshire?

The district of South Cambridgeshire consists of approximately 900 square kilometres of countryside surrounding the city of Cambridge. It is predominantly a rural area with no towns, but has 102 parishes and a number of smaller settlements. In many parts of the district public transport is good, especially along the main roads or 'corridors'. However, there are several villages where access to a bus or train service is poor or absent - only 6 of our villages are served by a railway

station, for example. This, coupled with the rural nature of the district, means that many people feel isolated within and from their communities. Accessing appropriate transport for essential and social journeys is challenging for many people, including the elderly and infirm, disabled, parents with young families and those who don't drive, including young people.

Consequently, South Cambridgeshire District Council has made Community Transport (CT) one of its priorities and the Local Strategic Partnership and the Transport and Access Subgroup have developed a Community Transport Strategy and Action Plan, 2010-2012 to support this work. This strategy builds upon the foundations of the Accessibility Strategy, which focussed on areas such as Balsham, where public transport is limited. Figure xx sets out the Community Car Schemes operating in the district.

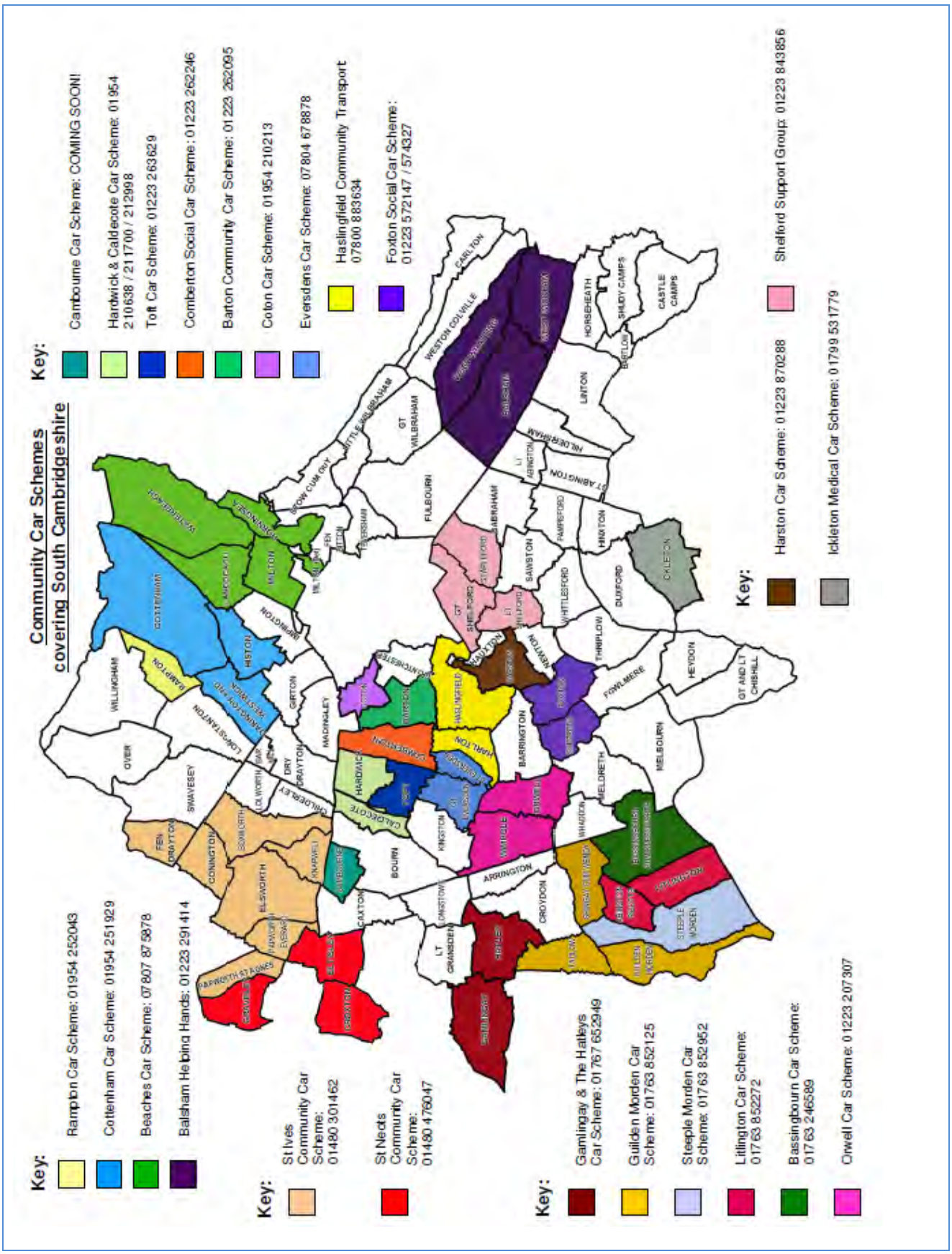
Aim: To complement conventional means of transport in order to aid independent living, increase access to services and reduce rural isolation.

Objectives:

1. To understand the need for community transport in the district.
   a) Map existing provision and identify unmet need in virtual and geographic communities.
   b) Ensure that provision builds upon conventional means of transport.
2. To develop the capacity, self-sufficiency and environmental sustainability of service providers to meet the identified need.
   a) Work with service providers to re-define, prioritise and engage with target service users and vulnerable groups as required.
   b) Address the barriers to providing a consistent, high quality service, including the recruitment, training and retention of suitable volunteers.
3. To enable easy access to community transport.
   a) Increase awareness and take up of existing provision.
   b) Commit to forward planning for new and existing communities.

We are gathering information about local need using, amongst other things, community-led plans and by working with local charities whose clients are potential users of CT, such as people with visual impairments or young people with no alternative means of transport. This research and mapping is ongoing and is being undertaken in partnership with the County Council, Addenbrooke's and the full range of CT providers in the voluntary and community sector from Dial-A-Ride services through Social Car Schemes to Shopmobility. There is a Steering Group for the strategy and various forums of service deliverers and users have been brought together to ensure operators and their clients are at the heart of the strategy's implementation.

Figure 4.14. Community Car Schemes in South Cambridgeshire


Community Car Schemes
covering South Cambridgeshire
Key:
Cambourne Car Scheme: COMING SOON!
Hardwick & Caldecote Car Scheme: 01954 210638 / 211700 / 212998
Toft Car Scheme: 01223 263629
Comberton Social Car Scheme: 01223 262246
Barton Community Car Scheme: 01223 262095
Coton Car Scheme: 01954 210213
Eversdens Car Scheme: 07804 678878
Haslingfield Community Transport 07800 883634
Foxton Social Car Scheme: 01223 572147 / 574327
Key:
Rampton Car Scheme: 01954 252043
Cottenham Car Scheme: 01954 251929
Beaches Car Scheme: 07807 875878
Balsham Helping Hands: 01223 291414
Key:
St Ives Community Car Scheme: 01480 301462
St Neots Community Car Scheme: 01480 476047
Key:
Gamlingay & The Hatleys Car Scheme: 01767 652949
Guilden Morden Car Scheme: 01763 852125
Steeple Morden Car Scheme: 01763 852952
Litlington Car Scheme: 01763 852272
Bassingbourn Car Scheme: 01763 246589
Orwell Car Scheme: 01223 207307
Key:
Harston Car Scheme: 01223 870288
Ickleton Medical Car Scheme: 01799 531779
Shelford Support Group: 01223 843856

Challenge 6: Addressing the main causes of road accidents in Cambridgeshire

Vision

To provide a safe environment for travel and to minimise the number of accidents in Cambridgeshire.

Barriers

We have identified a number of barriers to achieving our vision, and this strategy set out measures to address them. The barriers are:

- Lack of information and awareness of road safety issues
- Accident cluster sites
- High levels of accidents while people are travelling for work
- Disproportionate number of young male drivers involved in road traffic accidents
- Higher than average traffic levels on our rural roads
- Declining funds

What we will do to overcome these barriers

Over the past 10 years, excellent progress has been made in reducing accidents on Cambridgeshire's roads. The County Council and its partners will build on this success by continuing with many of the projects and programmes of work already in place. We will focus on addressing this challenge by:

- Improving road user behaviour through education, training and publicity programmes
- Encouraging businesses and employers to implement appropriate policies and procedures for managing the safety of their employees, whilst travelling for work
- Working in partnership with the police and other strategic agencies via the Cambridgeshire and Peterborough Road Safety Partnership (CPRSP)
- Developing programmes to reduce the number of young drivers, and riders, killed or injured on the County's roads
- Developing programmes to reduce child road accident casualties
- Ensuring schools have convincing, up to date, Travel Plans and measures to deliver safer & sustainable travel modes
- Continuing to fund safety camera technologies
- Targeting remedial measures at those accident cluster sites that will give the highest casualty reduction

We will measure our success at overcoming the barriers set out above using the following indicators, which are detailed in **Chapter 5**.

- LTP 01 People killed or seriously injured in road traffic accidents
- LTP 02 Children killed or seriously injured in road traffic accidents
- LTP 03 Pedestrians and Cyclists killed or seriously injured in road traffic accidents
- LTP 04 Slight injury casualty rate per vehicle kilometre

Background

Addressing this challenge is closely linked with improving safety for and encouraging walking and cycling in accordance with the wider sustainability agenda and therefore will be implemented in line with our modal hierarchy and alongside schemes and measures contained within Challenge 3. Ongoing maintenance of the road network also contributes to our road safety performance and wherever possible, safety engineering schemes will be coordinated with other improvements to minimise disruption to the transport network and offer best value and casualty reduction.

Key to addressing this challenge is our ability to overcome misperceptions of safety, crime and fear of crime as a barrier to travelling by sustainable modes. Public perception of being safer in a car than on foot or bicycle results in increased car use. It is therefore important that we continue to reduce the perceived dangers of cycling and walking and also fear for personal safety of users of these modes and public transport.

Our headline targets for casualty reduction to be achieved by 2020 will mirror or exceed those set nationally in the Government's consultation "A Safer Way: Consultation on Making Britain's Roads the Safest in the World". Latest indications are that the next national Road Safety Strategy will be published towards the end of 2010.

Based on the 2004-08 average, the draft national targets are to reduce:

- deaths by at least 33% by 2020
- serious injuries by at least 33% by 2020;
- child deaths and serious injuries (aged 0-17[17]) by at least 50% against a baseline of the 2004-08 average by 2020
- at least 50% by 2020 the rate of Killed or Serious Injured (KSI) per km travelled by pedestrians and cyclists, compared with the 2004-08 average

Safety Zones for primary school children, aged 10 – 11 years. These events held throughout the county offer students an opportunity to learn about safety, by participating in a variety of interactive tasks. A range of partners deliver the activities based upon Water Safety, Fire Safety, Personal Safety and Road Safety. At the 2009 sessions, the Road Safety Officers used a height chart as part of their scenario to advise pupils whether they should still be using a child car seat, following recent government legislation.

Our road safety policies and programmes will initially aim to work towards achieving these targets. However, it is unclear how the policy position at a national level on road safety will evolve and whether these targets will be adopted by Government. Cambridgeshire's LTP3 targets will therefore have an initial 2012/13 timeframe, and will be reviewed as national policy evolves and the funding position for the LTP and for safety measures becomes clearer. Further detail on our initial road safety targets is included in **Chapter 5**.

Figure 4.15 shows the range of schemes and measures that have been carried out during the last two local transport plans.

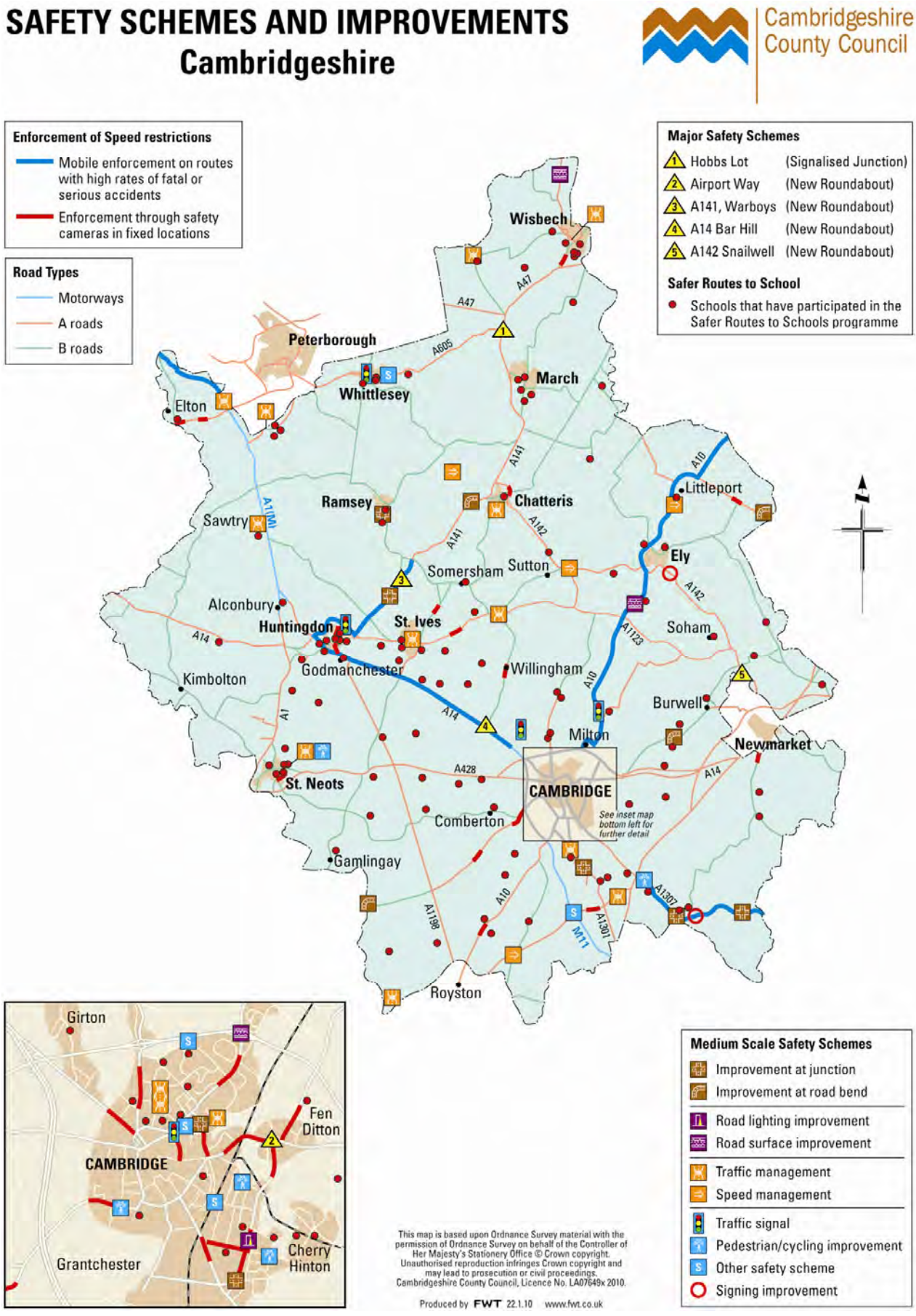
Improving road user behaviour through Education, Training and Publicity programmes

Education

We will continue to use revenue funds to develop our road safety education, training and publicity programme, and will increasingly look at partnership funding and grants to assist delivery of additional road safety activities.

[17] Classification change to include all 16 & 17 year olds

Figure 4.15. Safety schemes and measures implemented in Cambridgeshire since 2001



Our Road Safety Officers undertake education work at pre-schools, nurseries, primary schools and secondary schools using a number of modern teaching methods to educate young people about road safety. We will continue to run programmes in schools to educate children of all ages on road safety issues, to influence their behaviour as pedestrians, cyclists, public transport users and car passengers.

Training

Cycle Training Services

Over the period of LTP3 we will continue to support the delivery of cycle training for both adults and children so that our road users have the necessary skills, knowledge and confidence using on and off road cycle facilities. Our cycle training programmes currently cater for:

- children aged 7 – 9 years on 'Pedal Power' off-road cycle training courses
- children aged 10 – 11 years on either 'Safer Cycling' scheme (CCC's own local authority scheme) or 'Bikeability' scheme (Level 2) basic on-road cycle training courses
- teenagers/adults on 'Bikeability' (Level 3) advanced on-road road cycle training courses

Theatre in Education (TIE) continues to be a popular and effective way to engage teenage audiences at our secondary schools. Typical themes addressed in TIE performances include young drivers, peer pressure, speeding, seatbelt wearing, drugs and driving, use of mobile phones and risk taking.

In 2009 Cambridgeshire County Council trained 76 new volunteer instructors to deliver the Safer Cycling Scheme at schools across the county. All of the volunteers attended a one day training course, which included both theory and practical on road training. On the scheme there are approximately 400 volunteers. **Figure 4.16** illustrates that during 2008 and 2009, around half of all eligible pupils were trained. Over the coming years we will work to sustain and where possible improve on these figures.

Figure 4.16. Pupils trained in safer cycling in 2008 and 2009

	2008			2009		
	Total eligible pupils	Total trained	% of eligible trained	Total eligible pupils	Total trained	% of eligible trained
Cambridgeshire	6,246	3,540	58%	6,341	3,160	50%

Alongside the County Council's cycle training scheme, the national standard cycle training programme – Bikeability - is provided in Cambridge and the surrounding areas, funded through Cycling England's Cycle Cambridge Programme until March 2011. In 2009, 380 pupils were trained to Bikeability Level 2 - about 75% of eligible pupils. Currently Cambridgeshire County Council is the lead authority as an Independent Training Organisation in the East of England Region delivering Bikeability Level 2 in schools.

The County Council currently trains approximately 4,000 primary school children to the equivalent Bikeability Level 2 standard through the existing two cycle training courses. This represents about 50 – 60% of the eligible pupils countywide. The County Council is planning to convert all cycle training to Bikeability by 2012 and the future targets will be to achieve 75% of eligible pupils trained at 100% of eligible schools countywide. With this increased scope we will explore the use of LTP3 capital funding to deliver the Bikeability courses beyond March 2011. This will support the work of partner and other Council strategies and objectives, for sustainable travel and health improvement.

Driver and Rider Training

Addressing adult driver and rider behaviour, through targeted campaigns and initiatives, will be heavily promoted during LTP3. The current target groups include:

- Young Drivers
- Motorcyclists
- Speed Reduction
- Work-related Road Safety
- Migrant Road Users

These target groups were selected after analysing the available data for people killed or seriously injured in Cambridgeshire and Peterborough. For example, motorcyclists represent about 21% of those who are killed or seriously injured in road accidents, yet account for only 1% of the road user population.

In conjunction with targeted, data-led Police enforcement activity, the use of 'diversionary' training courses for drivers and riders will remain a key strategy for achieving further accident and casualty savings in these groups.

Based on the recommendations of the 1998 North Report – a review of road traffic offences - 'diversionary' courses offer riders drivers/riders the opportunity to learn from previous behaviour by retraining, rather than punishment.

The following courses will continue to be delivered in Cambridgeshire:

- National Driver Improvement Scheme (NDIS) – following a driver's involvement in a road traffic accident and facing likely Police prosecution for driving without due care and attention;
- RiDE Motorcycle Courses - offering riders the option of a Police fixed penalty ticket for their offence or the opportunity to attend a RiDE course delivered by civilian motorcycle trainers. The course is designed as a pre-crash preventative measure.

Publicity

In addressing road safety issues, we will continue to support national road safety campaigns, whilst developing local information and publicity material. Our publicity strategy will continue to be data led and focused on raising awareness via all forms of local media including radio, posters on buses, and roadside variable message signs. Much of our campaign work will be coordinated with timely, data-led Police enforcement activity. Future campaign topics will include:

- Young drivers
- Drinking & driving
- Drugs & driving
- Motorcycling
- Speeding
- Summer driving
- Winter driving
- Be Safe Be Seen (high visibility)
- Various key routes – for example, A1307, A1101, Mill Rd Cambridge,
- Fenland Roads
- Seatbelts & Child car seats
- Switching mobile phones off
- Driver Tiredness

Below are examples of previous successful publicity campaigns.

Encouraging businesses and employers to implement appropriate policies and procedures for managing the safety of their employees, whilst travelling for work

Work-related road safety remains another priority theme for this strategy because in Cambridgeshire, casualties incurred during the course of work account for nearly a third of all road accidents.

The We Mean Business! project which was funded by the DfT and the Highways Agency between 2008 and 2009 targeted this group of road users and enabled us to develop significant expertise in this area. The County Council has engaged with around 400 local employers to encourage them to implement relevant policies and procedures to manage the road safety of their employees, whilst travelling for work. A series of half day and one day seminars has been held for assisting local employers with the creation of their work-related road safety policies and over 100 businesses in Cambridgeshire attended the half day seminars during 2009. Feedback from delegates was very positive and the attendance rate exceeded 90%. We mean business! was recognised by the International Prince Michael Road Safety Award in 2008.

We will continue to work with businesses to implement policies and procedures for managing the safety of their employees whilst travelling for work.

A local car & van rental company attended one of the sessions held by the County Council which assisted them to write their own driving policy which each member of the company signed up to. The managing director of the company stated that the policy helped them to retain the existing customers and attract new business as their commitment to driving safety procedures had been highly appreciated. The policy also helped them save on operation costs given the reduction of accidents after the introduction of the policy.

Case Study: The A1307 safety campaign

The A1307 campaign is a successful example of a local campaign targeting a local issue. Education and publicity as part of the innovative holistic approach to road safety on the A1307, began in 2008 with a strong partnership between Suffolk County Council, Suffolk Road Safe, Cambridgeshire Constabulary and Cambridgeshire Fire and Rescue Service.

The campaign has included enforcement days, radio adverts, 'busback' advertising and Adman advertising, posters, internet advertising, adverts placed on memory sticks distributed locally and across the county in a targeted manner, and many free to air radio and television interviews due to significant interest from the media. The enforcement days have been accompanied by a major media presence, including filming of a police drive along the route with accompanying commentary, covered by both radio and television news bulletins.

We have achieved significant reductions in fatal, serious and slight casualties since starting the intensive campaign along this historically high casualty route, and we will continue to work with Suffolk County Council and St Edmundsbury District Council to investigate further improvements.

	Fatal	Serious	Slight	Total
During the 18 months before the campaign (March 2007-September 2008)	7	4	25	36
During the 18 months since the campaign (October 2008-March 2010)	0	3	18	21

Figure 4.17 shows that a high proportion of drivers/riders are involved in collisions whilst driving as part of, or commuting to or from work. As illustrated, the proportions of drivers in each category have remained fairly constant over the past three years.

Figure 4.17. Drivers/Riders (aged 17 or over) involved in personal injury accidents, by journey purpose

	Journey as part of work	Commuting to / from work	Other	Total
2007	1,125 (23%	628 (13%)	3,059 (64%	4,812
2008	1,047 (23%)	651 (14%)	2,921 (63%)	4,619
2009	838 (20%)	520 (13%)	2,800 (67%)	4,326[1]
Total	3,010 (22%)	1,799 (13%)	8,780 (65%)	13,757

[1] Includes 168 records where the journey purpose is still to be determined

The County Council has been successfully implementing its own policies and procedures for managing the road safety of County Council staff whilst at work since 2001. These measures include:

- risk assessment of 'at work' journeys for driving, cycling, walking and motorcycling
- policy and procedures for driving at work
- managers' guidance to ensure compliance with policy
- rigorous documentation checks
- accident reporting procedures

A key element of this programme has been to provide driver training to all staff driving in excess of 3,000 business miles each year, using their own vehicles. This Corporately funded training assesses each driver's personal risk of becoming involved in a traffic collision and suggests ways to reduce this risk. Feedback from trainers and employees continues to be very positive. The insurance claims evidence for the County Council fleet vehicles shows a 50% reduction since these measures were adopted. Prior to the policy measures being put in place in 2000, almost two in five fleet vehicles were involved in a collision each year.

Working in partnership with the Police and other Strategic Agencies via the Cambridgeshire and Peterborough Road Safety Partnership (CPRSP)

The CPRSP was established in 2007. Cambridgeshire County Council is the lead partner and administers the work of the partnership. The CPRSP Coordinator actively works with all partners:

- Peterborough City Council
- The Highways Agency
- Cambridgeshire Constabulary
- Cambridgeshire Fire & Rescue Service
- Cambridgeshire and Peterborough Public Health Network
- East of England Ambulance NHS Trust

The Council recognises that a multi-agency approach will significantly contribute to achieving a sustained reduction in casualties. The Board is chaired by the County Council's Cabinet Member for Highways & Access.

The Partnership's Strategic Board uses information collected and reported in the County Council's Annual Network Monitoring Report and works with the partner agencies to produce a Joint Casualty Data Report that identifies emerging priorities in road safety. Current target groups include:

- Young Drivers
- Work-related Road Safety
- Motorcyclists
- Speed
- Migrant Road Users

Until recently CPRSP was funded by the Specific Road Safety Grant from DfT. The future delivery of effective interventions and programmes of work provided by the partnership will be dependent upon securing alternative funding for the Partnership.

Whilst a number of projects have been designed during 2008-2010 to provide sustainable road safety activity requiring less ongoing revenue funding (for example, SpeedWatch and the Fire and Rescue Service road safety education initiatives); these activities are intended to provide added value to the essential core programme, and as such are not placed to continue reducing road death and injury over the coming years.

With casualties from road collisions in Cambridgeshire costing £231m per annum, investment in road safety presents a significant 'invest to save' opportunity for the county, and the country as a whole.

SpeedWatch

Supporting SpeedWatch will continue during LTP3. It allows concerned communities to get actively involved in monitoring and reporting the speeds of vehicles travelling through their neighbourhood to the Police. SpeedWatch is used in areas where speeding has been identified as a priority at Neighbourhood Panel meetings. The scheme is administered by Cambridgeshire Constabulary on behalf of CPRSP. It helps to educate motorists about speeding and monitors potential speeding trends in neighbourhoods.

Driving through villages and other urban communities at illegal, inappropriate speeds is anti-social and dangerous, and can have a very damaging effect on the lives of local residents. Concerns include pedestrian and cyclist safety, significant noise pollution, and increased engine emissions.

SpeedWatch does not require a community to have an evidenced speeding / antisocial vehicle use problem ahead of delivery – indeed SpeedWatch is a very efficient way for communities to identify for themselves whether their speeding problem is real, or perceived. A perceived problem is still considered a problem for communities, and SpeedWatch can be a useful tool in establishing the facts of the situation, whilst providing a visible and reassuring presence to local residents.

Public perceptions of speeding identified at Neighbourhood Panels often do not correspond with the analysis of casualty cluster sites identified by Cambridgeshire County Council and Peterborough City Council via casualty data. In the past this has been a source of frustration to both the public and to local services, generating many requests for help that could not be met because limited resources were necessarily being focused on existing casualty sites. SpeedWatch helps communities to address perceived local speeding problems themselves, reducing the burden on Police leaving them free to pursue evidenced problems via intelligence-led speed enforcement activity (some of which will have been identified directly by SpeedWatch), and Local Authorities free to direct resources to delivering remedial work against existing collision sites. The work of SpeedWatch volunteers leads to direct Police action where a persistent offender is identified.

Developing programmes to reduce the number of young drivers, and riders, killed or injured on the County's roads

National data shows that drivers are most at risk of having an accident in the first couple of years after passing their test. Data for Cambridgeshire and Peterborough highlights this with a distinct peak in killed and seriously injured casualties aged between 18 and 20. **Figure 4.18** and **Figure 4.19** below show the age distribution for car drivers and two wheeled motor vehicle riders (TWMV). This age group is also over-represented as passenger casualty figures.

Figure 4.18. Car Driver casualties by age and gender (2007 and 2009 average)

Figure 4.19. TMMV casualties by age and gender (2007 and 2009 average)

Figure A - Car driver casualties by age and gender (2007 and 2009) average

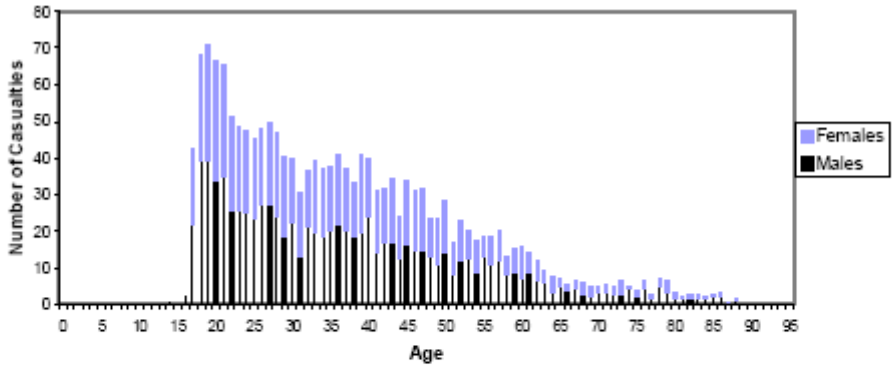
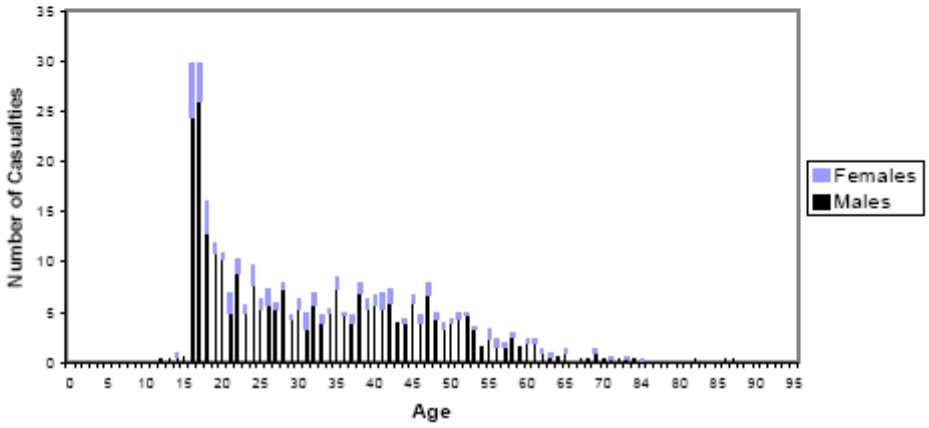


Figure B - TWMV casualties by age and gender (2007 – 2009) average



Developing programmes to reduce child road accident casualties

In line with guidance from the Department for Children, Schools and Families (DCSF), our 'child' classification for casualties has increased to include those at age 17, rather than 15.

Safer Routes to Schools (SRTS)

We will continue to roll out the SRTS project as a central part of our approach to sustaining the reduction in the number of child casualties in the county.

The project delivers modal shift away from car use on the school journey and therefore also helps to meet our wider goals of reducing congestion and pollution whilst improving independence, health and fitness through active travel - walking and cycling to school.

Schools in Cambridgeshire are invited to apply for the project on an annual basis and to date over 100 schools have participated and the number of applications has increased year on year. A school would typically be part of the project for two years. We aim to enable more schools to participate in the project or re-join if new safety concerns have been identified. The benefits of SRTS include:

- reduced congestion around the school
- improved road awareness of pupils and students
- increased opportunities for physical activity

- better understanding of how transport choices affect the environment
- access to specific SRTS education resources

The SRTS project is achieved through education, encouragement and engineering measures.

In terms of education and promotion measures, a range of tailored SRTS resources are integrated into each stage of the curriculum from Foundation Stage to Key Stages 3 and 4. The SRTS team also integrates the education programme with other programmes such as National Science and Engineering Week and Walk to School Week. It is intended that our SRTS work will continue to be delivered in this way during LTP3.

SRTS also promotes active travel to school through various sustainable transport initiatives, such as Walk on Wednesdays, Park and Stride schemes, Walking Buses, Safe and Seen campaigns and Cycle Training. The total Government funding for walking initiatives received by Cambridgeshire primary schools in 2009 was within the top 15% of UK schools.

Case Study: Houghton Primary School's Walking Bus

Houghton Primary School Walking Bus

The children at Houghton Primary School who take part in the Walking Bus project are escorted to school by trained volunteers whose enthusiasm enables the walking buses to run so successfully. The bus takes the same route to school every day and picks the children up at designated stops along the way. The route was risk assessed and the volunteers trained by the SRTS team and the bus has a 'driver' at the front and a 'conductor' at the back who are specially trained parents and carers who ensure that the journey goes smoothly. Children who have to be driven part of the way to school are also able to join the walking bus at a special pick up point which further reduces motor traffic near the school.

For the children at Houghton Primary School, the Walking Bus is well used. They get exercise, fresh air and can chat with friends even before their school day starts. Parents and carers also benefit, knowing that their children have arrived at school safely and on time without the stress of the usual school run traffic. The success of Houghton's walking bus and the enthusiasm of its volunteers has led to other Safer Routes to School Project schools also setting up walking buses.

Engineering measures are specifically designed to promote modal shift away from the car and improve road safety. They include cycle storage and parent waiting areas on school sites, and improved crossing points and traffic calming in the immediate vicinity of the school. All are designed to make the journey to school by foot or bicycle safer and more attractive.

Working with partners is essential to the effective delivery of our SRTS projects and the work of our School Travel Advisors. This strategy continues to support partnership working with internal and external colleagues such as:

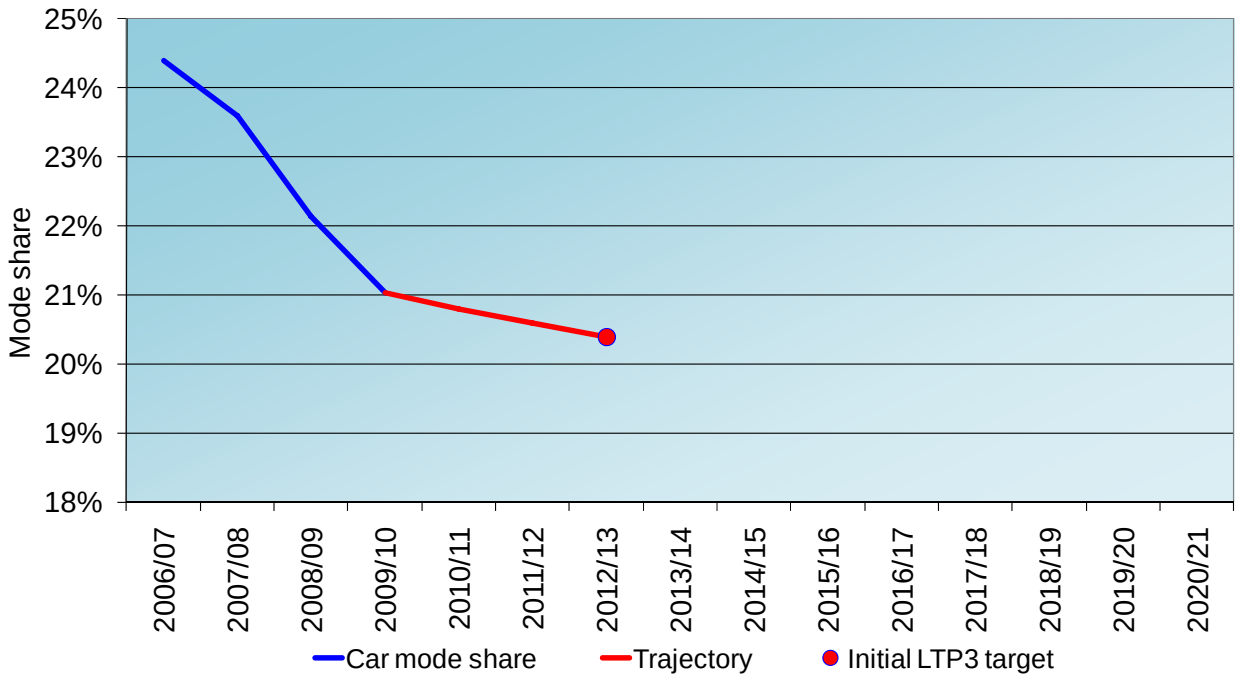
- Travel for Work Partnership (TfW) to share best practice in travel planning

- Cambridgeshire Health Promoting Schools (HPS) Team - a travel plan is a requirement of the HPS accreditation process
- Cambridge Transport & Independent Education Establishments (CTEE) forum - working with independent schools in Cambridge to reduce car use on the home to school journey
- Healthy Lifestyle Mentor Partnership - an Extended Schools project, which included local secondary schools along with their feeder primaries
- Change4Life team at the NHS - School Travel Advisors are developing pilot projects to encourage walking both on the journey to school and in a child's wider life as an important form of exercise
- The Countryside Access team - the exploring the countryside initiative offers schools a tailor-made package to help take advantage of 2000 miles of country footpaths and bridleways in the county

The Safer Routes to School project contributes directly to Indicator LTP07 which measures the mode of transport that children use to travel to school. It is measured through the annual School Census (PLASC) and demonstrates that we are currently exceeding our target.

Figure 4.20. Performance against Indicator LTP 07 – travel to school by private car

Initial target: No more than 20.4% of trips to school made by private car in 2012/13.



School Crossing Patrol Service

Our School Crossing Patrol Service is key to addressing this challenge. During LTP2, an extensive recruitment campaign was launched to attract new School Crossing Patrol (SCP) recruits. Following this exercise 96% of all SCP sites were staffed in 2008 – a figure that is much higher than the national average. Currently there are about 90 sites across the County and around 12,000 safe crossing movements facilitated by each SCP every year.

Monitoring our quality of service is undertaken via evaluation questionnaires sent to Head Teachers and this will continue to be central to service improvement. Driver awareness campaigns also form part of our strategy, educating drivers that they have a legal obligation to stop for an SCP - this campaign has run across the Eastern region for 9 years. The anecdotal evidence suggests that parents are more willing to allow their children to walk unaccompanied if the children receive SCP assistance in crossing the road.

Ensuring Schools have convincing, up to date, Travel Plans and measures to deliver safer and sustainable travel modes

Travelling To School Initiative (TTSI)

The TTSI, funded by central government, was introduced in 2003 to tackle the increase in journeys to school by car, by promoting sustainable forms of travel such as walking and cycling. The initiative incentivised schools to produce School Travel Plans (STPs) with technical assistance from the County Council's School Travel Advisors. All state schools in Cambridgeshire now have an individual STP in place which achieved the Government target that every school have a STP in place by March 2010.

The evaluation feedback indicates that 77% of schools would not have written a plan without the help of the School Travel Advisors from the County Council. The high quality of School Travel Plans helped the schools secure over £1.4 million of Capital Grants from the Government to spend on the measures identified in their travel plans including new cycle sheds, CCTV, resurfacing cycle paths and so on.

During the period of this LTP, it will be very important to continue a programme of monitoring and reviewing STPs to ensure that they remain current. We will continue to provide support to schools via our school travel advisors.

Continuing to fund safety camera technologies

We are committed to support the county's safety cameras, operated by CPRSP subject to funding being secured since the Road Safety Grant was withdrawn. There are currently 53 fixed cameras within the partnership (which includes Cambridgeshire, Peterborough and the Trunk Road network) of which 34 are on the local road network. In addition there are 3 mobile enforcement vans that operate at specific collision and community concern sites around the county. Fixed camera sites, in particular, have been shown to result in a reduction in serious collisions.

Between 2005 and 2009, collisions fell by more than 60% at fixed camera locations.

Although the collision reduction statistics are clear, there are some disadvantages to the current traditional fixed spot camera installations due to avoidance behaviour by some drivers. We are continuing to monitor sites in operation and investigating new camera equipment and systems, such as the average speed cameras in use on the A14, that are being developed as technology and infrastructure advances.

In 2009/10 average speed cameras were installed along The Forty Foot Bank near Benwick. Investigations identified that inappropriate speed and overtaking featured in many of the most serious incidents, and speed survey data showed that many drivers are exceeding the posted speed limit both at night and during the day time. A high profile publicity campaign accompanied the introduction of the cameras. This is the first installation on Cambridgeshire County roads, and the effect on casualties will be closely monitored.

Case Study: A14 time over distance SPECS cameras

The pioneering A14 time over distance SPECS cameras have been operational since July 2007. As a result of this scheme, Killed and Seriously Injured (KSI) collisions have dropped by 68%, which equates to an average annual saving to the economy of £4.3m. In addition, feedback from road users suggests that journey time reliability has improved; providing smoother flows, reduced close following, less aggressive driving and better fuel consumption.

- *68.6% reduction in KSI collisions*
- *£4.3m annual average saving to the economy*
- *Improved journey reliability – non-recurrent delays reduced*
- *85th%ile speeds of 64.6mph post installation*
- *Only 404 Notices of Intended Prosecution issued in one year*
- *Improvements seen along 22km of road, not just at a collision hot-spot*

Targeting remedial measures at those accident cluster sites that will give the highest casualty reduction

Road safety engineering measures are central to addressing this challenge and complement the education, training and publicity elements recorded elsewhere in this section. Road safety engineering is based upon the investigation of locations with high rates of accidents, and identifying appropriate remedial measures to address the types of accident that have occurred. Where engineering measures are deemed the appropriate tool, schemes are put forward to bid for funding from the annual road safety engineering budget. Our engineers also apply their expertise to reduce the likelihood of future problems by conducting safety audits of all significant works on our highway network. This approach will be carried forward under the period of LTP3.

The main work areas covered by the Road Safety Engineering team include:

- **Accident Investigations**: Reviews looking at the accident history, site conditions and potential treatments at identified accident cluster and fatal collision sites
- **Minor road safety works**: Low cost treatment at junctions or short sections of road with a history of collisions
- **Local safety schemes**: More significant works costing between £50,000 and £500,000 targeted at reducing casualties at a junction, short section of road or along a route
- **Road Safety Audit**: A review of any proposed highways works to consider the potential longer term safety implications
- **Safety Camera partnership**: Identification of potential sites for camera enforcement. Installation and maintenance of existing sites and other engineering works

Casualty Reduction

Identifying and investigating sites that have a persistent history of injury accidents in a small area is an important part of our strategy (these sites are known as accident cluster sites). Owing to our proactive approach, many of the cluster sites that had straightforward engineering solutions have already been treated, and therefore the number of sites with high numbers of collisions is reducing.

However, there are many places, particularly on our high speed rural roads that see significant numbers of high severity injuries scattered over a wider area. Route investigations and treatments aimed at longer sections of road have subsequently been introduced over the last few years. The treatment of such long sections requires a very different approach to that taken with cluster sites. There may be some engineering treatments at specific hotspots, but overall a more holistic course of action is used. A targeted combination of engineering, enforcement, and education is now being used. It is a relatively new approach so there is limited evaluation data available yet, but early indications for routes appear very positive (see case study example for A1307 on page 4-65).

The number of sites that can be treated each year is limited, and there are always many more schemes bidding for funding than available budget. Each year potential sites are ranked according to the number and severity of casualties that have occurred during the previous three years, and also take into account the effect on road users, congestion and the environment. The highest-ranked sites are then allocated funding for remedial measures. This methodology is well-established to implement cost-effective safety schemes and allows us to spend the funds available effectively and fairly, giving priority to schemes that will have the most beneficial effect.

A key tool for the future delivery of this strategy will be the new Market Analysis and Segmentation Tools (MAST) web based data analysis engine. It will enable road safety practitioners across the UK to access road accident and casualty data, which has been integrated with socio-demographic data. This unique analysis will be used to support decisions about future intervention strategies to reduce casualties and increase efficiencies. The Council is also analysing the casualty data to identify, where possible, culpability in accidents to assist us to improve the way in which we target our road safety messages. In addition to this, the **DfT** and the **Royal Society for the Prevention of Accidents** are currently developing Eval-U-It, a tool which will help to evaluate the benefits of education programmes.

Safety Audits

We will continue to promote accident prevention by completing safety audits both during the design and after construction for all traffic management and engineering schemes, whether they be local authority schemes or works undertaken by private companies or developers. The full safety audit history of schemes are stored in a database for future reference.

Safety Audit work is undertaken in line with national best practice - the principles, auditors' qualification requirements and standards - are set out in HD/19/03 within the Design Manual For Roads and Bridges.

Urban areas

We are committed to improving safety in our urban areas where vulnerable road users, particularly pedestrians and cyclists experience a higher risk of injury. Road safety audits will continue to be carried out on schemes in urban areas taking into account the high levels of pedestrian and cycle activity we see on our urban networks.

Personal safety and perceptions of personal safety can also deter people who might otherwise walk or cycle. In partnership with the police and District Councils, we aim to address personal safety issues following the general principles below:

- Address night time safety issues by illuminating urban routes in line with the street lighting standards detailed in the Housing Estate Road Specification.
- Install Closed Circuit Television (CCTV) cameras to help reduce crime and disorder incidents.
- Manage vegetation of planted areas appropriately to avoid high growing shrubs and bushes close to walkways, as these are often perceived as a hiding location.
- Promote urban routes that are visible to passing traffic, houses and/or shops, rather than routes in isolated areas.

Rural areas

The approach to tackling accidents on our rural roads will continue to include treatment of individual cluster sites using engineering measures in combination with enforcement and education along longer stretches of problem routes. In terms of personal safety, managing vegetation is also an issue to be addressed in rural areas.

Speed management

Speed can be a significant contributory cause of road traffic accidents and higher speeds tend to generate higher casualty severity.

Research[18] by the European Transport Safety Council (ETSC) has shown that drivers exceeding the speed limit cause about one third of all fatal and serious accidents, with evidence showing that the faster people drive, the greater their chance of being involved in an incident.

The research demonstrates that on average, a 1% reduction in the mean speed of traffic leads to the following reductions in accidents:

- A 2% reduction in all injury accidents
- A 3% reduction in serious injury accidents
- A 4% reduction in fatal accidents

The County Council's Speed Limit Policy aspires to provide 30mph speed limits in the developed parts of all settlements in Cambridgeshire and complementary features to encourage drivers to travel within the limit are installed where appropriate. This policy complements the work undertaken by CPRSP which operates the county's speed enforcement cameras, including the 34 cameras on local roads.

In six locations across the county - Cambridge City, Wulfstan Way in Cambridge, Soham, Whittlesey and St Ives - there are currently 20mph speed limit trials in operation. These were set up to test community views on the potential for a wider application of 20 mph speed limits in response to residents' concerns about road safety and improving the environment for pedestrians and cyclists, following guidance from Government on trialling 20mph areas. The Council will use

[18] ETSC (1995): Reducing traffic injuries resulting from excess and inappropriate speed

the outcomes of the trials to help inform future policy on 20mph areas and their possible wider application.

Motorways and Trunk Roads

Several major roads across our county are managed and operated by the Highways Agency as they form part of the strategic road network. These include the M11, A14, A428, A11, A47, A1 and A1(M). We will continue to work closely with the Highways Agency through the CPRSP and other partnership arrangements to contribute to the Highways Agency's Area Safety Action Plans for Area 6 (Essex, Cambridgeshire, Suffolk and Norfolk) and Area 8 (Cambridgeshire, Bedford and Central Bedfordshire, Hertfordshire and parts of Suffolk).

Other policies and initiatives that impact on this challenge

There are a number of other policies, initiatives and considerations which impact on our ability to address this challenge. These are set out below.

National road safety strategy

The new national road safety strategy is likely to be published in the spring of 2011. The LTP will be updated to reflect the national strategy if necessary.

Improvements to trunk roads

http://www.highways.gov.uk/roads/1500.aspx

Vehicle technology

For information on vehicle standards, see:
http://www.dft.gov.uk/pgr/roads/vehicles/vssafety/

Challenge 7: Protecting and enhancing the natural environment by minimising the environmental impact of transport

Vision

To protect and enhance the natural environment by ensuring that new and existing transport has minimal impact i.e. it contributes to reduced emissions, climate change mitigation and improved air quality; and that environmentally friendly modes of transport are prioritised

Barriers

- High polluting older vehicles in bus fleet and other commercial vehicles
- Availability and cost of technology to minimise the impact of transport on the environment e.g. renewing the bus fleet and traffic management measures
- Availability and affordability of electric and other greener vehicles, e.g. hybrid vehicles
- Lack of charging infrastructure for electric vehicles
- Conflicting demands for higher frequency public transport and the need for lower emissions
- Willingness and ability to change travel behaviour
- Rising traffic levels in Cambridgeshire as a whole
- Affordability and availability of alternatives to the private car
- Transport-related noise

What we will do to overcome these barriers

- Manage the highways network and consider the environmental impacts of schemes at the planning, design and implementation stage (e.g. noise, heritage, biodiversity and landscape) to protect and enhance the natural environment
- Utilise new technologies as they become available to minimise the environmental impacts of transport e.g. new materials and construction methods
- Respond to the proposals of other infrastructure providers to highlight environmental impacts
- Work in partnership with the District Councils to monitor air quality at key locations across the county and develop and implement effective Air Quality Action Plans
- Develop, specific elements of the Joint Air Quality Action Plan for Cambridge, South Cambridgeshire and Huntingdonshire Districts, and implement those elements shown to be most effective and lowest cost
- To reduce overall vehicle mileage through a combination of demand management, infrastructure improvement and enhanced public transport provision
- Manage and reduce vehicle emissions
- Reduce the need to travel and encourage sustainable alternatives to the private car
- Encourage and promote the use of greener vehicles and fuels
- Contribute to the implementation of the Cambridgeshire Green Infrastructure Strategy, including provisions and maintenance of a network of green infrastructure
- Reduce transport-related noise pollution

Challenge 3 should be read in conjunction with this Challenge.

Manage the highways network and consider the environmental impacts of schemes at the planning, design and implementation stage to protect and enhance the natural environment

Protect and enhance the landscape

There are a wide range of landscapes in the county, for example chalk, limestone grassland, wetlands, woodlands, and hedgerows, which are covered by a network of easily accessible walking, cycling and vehicular routes. The County Council's Climate Change and Environment Strategy sets out its commitment to protect and enhance Cambridgeshire's landscape character and diversity (Policy NB1). Through our decisions and actions we have a pivotal role in safeguarding and enhancing the landscape.

Transport can have a major impact on the landscape. Cambridgeshire is crisscrossed by highways, varying in scale and impact from motorways to narrow country lanes. Roadside trees, hedges and verges add to the richness, diversity and special character of the landscape.

Cambridgeshire County Council works with other organisations, land managers, and district and parish councils to maintain the rights of way and improve access for all, promote new areas of greenspace, and protect and enhance the local landscape character set out within the Cambridgeshire Landscape Guidelines (Cambridgeshire County Council 1991).

Whether roads are primarily intrusions into or a means of enjoying and diversifying the countryside depends very much on scale - major roads with heavy traffic are clearly more difficult to integrate environmentally than a quiet country lane. However, design and siting can play an important role.

We consider the visual impact of the road network and associated street furniture, and will provide only such signing and other street furniture that is necessary for amenity and safety of people travelling on the road network. Specifically we will aim to reduce street clutter and make better use of existing street furniture by co-locating signage on street lamps and existing sign posts. Reducing unnecessary signage and other street furniture 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.

New Roads and Improvements

When developing new transport proposals we work with landscape designers to select road alignments which minimise impact on both the immediate road corridor and the wider landscape through which the road runs. Later detailed work involves advising on the specific route and designing the associated planting, landforms and other elements.

All major transport infrastructure proposals, such as **The Busway** 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. This also helps to identify any necessary mitigation measures. For The Busway scheme, we acquired 16 Landscape and Ecological Mitigation Areas with a total area of 15 hectares.

Protect and enhance nature conservation and biodiversity

Biodiversity is the wealth of wildlife around us. It includes species that are both rare and threatened, and those thought of as commonplace. In addition, Cambridgeshire supports a number of protected species, habitats and sites considered of nature conservation importance. The County Council has statutory and non – statutory responsibilities in relation to biodiversity and nature conservation. In addition, the County Council's Climate Change and Environment Strategy sets out its commitment to protect and manage Cambridgeshire's biodiversity (Policy NAB).

Having contact with nature and access to the countryside and open greenspace has been shown to have beneficial effects on our well-being, as well as providing an opportunity and incentive for outdoor exercise. In urban areas trees do more than just improve the scenery - they can improve air quality and provide shade. The Council has an important role in safeguarding and enhancing biodiversity to which this LTP will contribute.

National Biodiversity Action Plans and Cambridgeshire and Peterborough Biodiversity Action Plans have been produced for habitats and species considered of national or local conservation importance, respectively. The aims, objectives and targets of these Biodiversity Action Plans will be used to protect and enhance biodiversity on sites, land, buildings, structures and infrastructure owned and/or managed by the County Council.

In addition, a number of Sites of Special Scientific Interest, County Wildlife Sites and Protected Road Verges are present within land owned or managed by the County Council. These sites will be protected and enhanced as part of the maintenance and enhancement of the transport network.

We can also help to improve biodiversity as part of the transport network in urban areas. For example, our **Park & Ride** sites include trees and hedges which provide visual screening within and around the sites, while balancing ponds and grassland areas store and soak up rainwater. There are a range of species that inhabit the Park & Ride sites, these include:

- Pond and wildflower grassland (Trumpington)
- Chalk grassland supporting a rich and varied flora (Babraham Road)
- Pond and wooded belt (Madingley Road). The site supports a range of species, including Great-crested newts and White – letter Hairstreak and Purple Hairstreak butterflies

In rural areas our roadside verges and hedges provide important habitats. This includes species – rich grasslands, which support a range of locally nationally important species including Sulphur Clover and Fen Ragwort. These habitats also provide resource for a variety of small mammals, bats, birds and invertebrates, including butterflies.

Maintenance of road verges

Road verges probably constitute the largest area of unimproved grassland in the county. Their significance as landscape features and havens for wildlife is heightened by their prominence. Around 90 such road verge sites in Cambridgeshire have now been identified and marked for protection because of their wildlife interest. Protected Road Verges are only cut twice per year usually during spring and autumn after the flowers have set seed. However, where these verge areas occur at bends and junctions then safety shall always take priority over any delayed cutting. The Council encourages people to avoid parking on the verge and refrain from cutting the grass outside properties beyond what is necessary to maintain visibility for safety reasons.

As part of this LTP we will investigate opportunities within new road schemes for creating new road verges, which with the careful selection of appropriate species, could become valuable habitats for wildlife as well as extending and enhancing existing road verges.

Utilise new technologies as they become available to minimise the environmental impacts of transport

We will keep up to date with the latest research and policy on new technologies that may become available to help minimise the environmental impacts of transport. This could include more environmentally-friendly building materials or emissions standards and the use of sustainable drainage systems (SuDs) to help reduce pollution. We will look to implement such new technologies if effective and financially viable.

Respond to the proposals of other infrastructure providers

We have a duty to respond to the proposals of other infrastructure providers and are often statutory consultees for schemes, such as the Highways Agency's proposals for the A14. While supporting the scheme in principle, we raised a number of environmental concerns including the impact of the proposed scheme on flooding and local wildlife habitats. In addition, we will comment on proposals for other infrastructure projects such as rail schemes, airport expansions and new developments to ensure environmental issues are considered and recommend mitigation measures where necessary.

Work in partnership with the District Councils to monitor air quality at key locations across the county and develop and implement Air Quality Action Plans

Improving local air quality can contribute towards meeting two of our strategic objectives – Enabling people to thrive, achieve their potential and improve their quality of life; and Meeting the challenges of climate change and enhancing the natural environment. As set out in Chapter 3 poor air quality can have a significant impact on people's health and quality of life and on habitats and species of importance for nature conservation. Therefore through this LTP we aim to improve local air quality where transport is a key contributory factor.

The main source of air pollution in Cambridgeshire is vehicle emissions. The nature of the road network and spatial distribution of housing and industry exacerbate the air quality problems. 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 air quality problems in areas where relatively low traffic levels are experienced.

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

- Monitoring diffusion tube sites in all of the districts to measure NO2
- Real-time monitoring for a mixture of pollutants in Cambridge, Huntingdon, St. Neots, Godmanchester, Impington, Bar Hill and Wicken Fen

Where national Air Quality Objectives are unlikely to be met by a specified date, Air Quality Management Areas (AQMAs) must be declared and Air Quality Action Plans (AQAPs) developed to demonstrate how the local authority intends to work towards meeting the objectives. We will continue to support the District Councils in their air quality monitoring role and work in partnership to ensure AQAPs are integrated into the LTP and are implemented where feasible. Page 3-14 details the existing AQMAs in Cambridgeshire.

Using measured concentrations of key air pollutants from year to year is often a misleading metric to report progress. The reason for this is that annual concentrations fluctuate markedly by up to 20% depending on weather conditions. It is therefore necessary to study these data over periods of 5 to 10 years to establish firm trends.

However, the majority of air quality problems in the County are related to transport and so surrogate indicators of progress can be used to easily identify reductions in polluting emissions to the air.

For example the Cambridge Bus Emission Reduction Commitment uses real bus mileage and Euro standard within a fixed area to calculate notional tonnage of NOx emitted for a fixed period. Data is available back to 2008 and can easily demonstrate the level of improvement over the period 2008-2010.

Joint Air Quality Action Plan

A joint Air Quality Action Plan (AQAP) has been developed by Cambridge City Council, Huntingdonshire District Council and South Cambridgeshire District Council. It looks at how to improve air quality up to 2015 in order to meet national air quality objectives, setting 6 priority actions for each district, and focuses on reducing PM_{10} and NO_2 concentrations along the A14 and within each district. Some of the measures in the joint AQAP form part of our transport strategy and we will implement these over the life of the Plan. Other measures in the joint AQAP are the responsibility of the relevant District Council e.g. taxi licensing arrangements and planning conditions.

In addition to the implementation of LTP policies to encourage sustainable travel, this Joint Air Quality Action Plan identified the following priority actions:

Cambridge City

- Implementation of Air Quality policies in the (Cambridge) Local Plan – new development not permitted to adversely impact on AQMA.
- Improving of bus emissions in the Cambridge Core Area by agreeing A Bus Emission Reduction Commitment with operators as part of a wider action plan for bus management through the existing Quality Bus Partnership.
- Maintain 8-year limit on taxis for all taxis licensed by Cambridge City Council and all taxis entering the transponder-controlled Core Area - to ensure that the fleet is continuously improving.
- Creation of a low-emission zone – restricting access to the Core Area regulated by rising bollard transponder entitlement.

South Cambridgeshire

- Completion and opening of The Busway.
- Widening of the A14 carriageway between Fen Drayton and Histon - increasing the number of lanes from two to three on both eastbound and westbound carriageways should help to alleviate congestion and speed traffic through-flow.
- Re-alignment of the A14 and the construction of a local road between the M11 and Bar Hill junctions during the A14 Improvement Scheme.
- Become members of existing Freight Quality Partnership – the South Cambridgeshire District Council's Further Assessment of air quality along the A14 has identified HGVs as having the greatest impact on air quality in the District. If improvements in air quality are to be achieved on the A14 between Bar Hill and Milton it is vital that the Council seeks to give an understanding of local air quality issues to freight operators, who may in turn be able to offer invaluable input into reducing emissions from their fleet.
- Embedding the Local Development Framework (LDF) Air Quality Policy in Supplementary Planning Documents – this will ensure that air quality is considered at the planning stage and therefore not adversely impacted by new development it aims to explore the implementation of a low emission strategy to mitigate the impact of growth.

Huntingdonshire

- The rerouting of the A14 away from settlements.
- Implementation of Air Quality policies in the Local Plan – new development not permitted to have a significant adverse impact on air quality within Air Quality Management Areas.
- Development of an effective freight transport partnership between operators using the A14.
- Inclusion of Huntingdonshire in the Quality Bus Partnership - minimum emission criteria for all Public Service Vehicles as well as targets for ongoing improvements in emissions.
- Completion and opening of the Cambridgeshire Guided Busway.

It will also be important to promote emissions reductions with the Eastern Region Freight Quality Partnership. This Partnership will be an important tool in reducing emissions from freight using the A14.

Manage and reduce vehicle emissions

The most significant air quality issues in Cambridgeshire arise from traffic and congestion[19]. It is therefore essential that we manage and reduce vehicle emissions. As detailed in Chapter 3, congestion and 'stop-start' traffic can result in poor air quality, therefore Intelligent Transport Systems will be used to help smooth traffic flow which will help to reduce emissions.

Managing bus emissions and the Bus Quality Partnership

Most measures taken to mitigate climate change will also have a positive impact on air quality. However, it should be noted that while vehicles with diesel engines are more fuel efficient than those with petrol engines, because they emit less carbon dioxide per mile travelled, they actually emit a higher level of particulates. Therefore there is a need to strike a balance between tackling emissions that impact on air quality and reducing carbon emissions.

Poor air quality in Cambridge is mainly caused by the volume and type of traffic using the often congested narrow streets in the city centre, with buses a significant contributor to NO_2 air pollution. However, in the wider city, emissions from buses make a smaller, but still significant contribution towards poor air quality, which is mainly caused by volume of traffic.

While the number of buses using the central area of Cambridge continues to grow, air quality has remained at a constant level. This is in part due to the improved quality of vehicles (e.g. Park & Ride buses and Citi services) using the area, as well as infrastructure improvements nearby. However, the need for more people to travel by sustainable modes of transport will result in an increase in bus patronage and the number of buses serving Cambridge. At the same time we will need to ensure that vehicle emissions decrease in order to meet national air quality objectives. Action, underpinned by partnership working, is now needed to ensure that the likely increase in buses does not lead to increased congestion and poorer air quality. The Cambridge Bus Emission Reduction Commitment may require the renewal of the bus fleet or changes to the way buses serve and access the city centre. Progress in delivering this Commitment will be partly dependent on the availability of funding from operators to purchase new vehicles and will involve the implementation of additional traffic management measures to improve and reorganise access for buses. Since 2008 all main operators have reduced emissions and current emissions meet the proposed commitment trajectory up to the end of 2012.

The Cambridge Area Transport Strategy and Air Quality

Work is being undertaken by the County Council, Cambridge City Council and South Cambridgeshire District Council to develop a **new transport strategy** for Cambridge and the surrounding area. One of the key issues the new strategy will address is the environment in the city centre, with air quality a particular focus. The strategy will consider a range of potential interventions that could improve air quality, including, but not limited to:

- Additional areas of pedestrianisation.
- Changes to bus routeing, bus interchange and stop locations.
- Extension of the **Core Traffic Scheme** in the city centre.
- Increased priority for non-car modes outside of the city centre.
- A Low Emission Zone.

[19] Cambridgeshire Climate Change and Environment Strategy
http://www.cambridgeshire.gov.uk/environment/default/

The strategy will include a commitment to continue to work with bus operators to upgrade fleets to current emissions standards in an even handed, transparent and timely manner. Through the work to develop the Cambridge Area Transport Strategy, we will seek to identify and implement the most effective way in which buses can operate in the city centre, while:

- Meeting air quality objectives.
- Playing their role in catering for the transport demands of growth.
- Playing their part in reducing CO_2 emissions from transport across the city and the surrounding area.

Traffic management

The AQMA in St Neots is mainly the result of traffic congestion along the High Street. The **St Neots Market Town Transport Strategy** proposes to upgrade the existing Urban Traffic Control system within the town centre to include four junctions which are the most significant barriers to traffic flow, providing a coherent traffic management system through the town. The resulting free-flowing traffic conditions will lead to improved air quality, reduced congestion and also improved safety. The **Huntingdonshire Environment Strategy** 2008 and the **Huntingdonshire Car Parking Strategy** will also help to reduce emissions in St Neots AQMA and the wider district.

Further information on our approach to traffic management, reducing congestion for buses and increasing public transport use can be found in challenges 1 and 3.

Air quality on the trunk road network

Three of the four AQMAs in Huntingdonshire, and the single AQMA in South Cambridgeshire are caused by the heavy flow of traffic and regular congestion on the A14. The proposed Highways Agency scheme to reroute and widen the A14 was expected to have a positive impact on air quality along the route, particularly in Huntingdonshire and in Huntingdon itself. However, as a result of the Comprehensive Spending Review in 2010, the scheme has been dropped from the National Roads Programme. If the preferred route had progressed to construction it was envisaged that there would be a net improvement in air quality in the AQMAs and it was anticipated that the AQMA between Hemingford Abbots and Fenstanton would have been revoked. Further work is now needed with the district councils and the Highways Agency to investigate alternative solutions to the air quality problems along the route.

The opening of The Busway between Huntingdon, St Ives and Cambridge will improve the quality of the public transport network between Huntingdon and Cambridge, attracting new passengers who otherwise may have travelled by car along the A14. This will therefore have a positive impact on air quality and carbon emissions in the area. Further information about alternative fuels can be found on page xx.

In partnership with the District Councils we will investigate the feasibility of an effective freight transport partnership with operators using the A14 to tackle emissions from freight along the route.

Reduce the need to travel and encourage sustainable alternatives to the private car

As well as tackling specific air quality issues in the AQMAs, our transport strategy is aimed at improving overall air quality and reducing carbon emissions across the county, and therefore quality of life. In Cambridgeshire, the continuing rise in traffic combined with future population growth could exacerbate existing problems of carbon emissions and air pollution if measures are not put in place to manage this growth and travel behaviours altered. Therefore the focus of our strategy is to promote sustainable and environmentally friendly forms of transport, encourage behavioural change and cater for the transport needs of the growth agenda in a sustainable manner. Through our programme we will therefore implement measures that can either improve air

quality and carbon emissions or minimise impacts on climate change and air quality. Real Time Passenger Information will also be used to help manage the bus fleet.

Our programme of Market Town Transport Strategies will, over the longer term, bring about considerable improvements to sustainable transport options resulting in more trips on foot and cycle. In combination, these measures will help to improve the environment as fewer trips will be made by private car. Our wider accessibility / public transport strategy is set out in Chapter 4. For Cambridge, we are currently developing a Cambridge Area Transport Strategy as detailed on page 4-27.

The enhancement of the cycleway and bridleway networks will provide additional opportunities for residents of rural areas to make sustainable transport choices. Furthermore, the future development of a Rural Transport Strategy will provide additional opportunities for improving sustainable travel and therefore air quality and carbon emissions in rural areas.

Chapter 4 contains detailed information about these initiatives. Our proposals for demand management to reduce car use and give priority to cyclists, pedestrians and public transport support these initiatives.

Reduce the need to travel

One of the main approaches to reducing emissions is to reduce the need to travel and particularly the need to travel by private car. There are two main ways to achieve this. Firstly through land use planning by locating key facilities close to where people live; and secondly through the use of information technology which has the potential to enable access to the people, goods and services we need without having to travel.

Land use planning

As set out in Chapter 4, this Local Transport Plan is closely integrated with both national and local planning guidance. Our transport policies require new developments to be designed with sustainable transport in mind and be served by high quality public transport, walking and cycling facilities, including waiting facilities, cycle parking and cycle routes. We will work in partnership with the Districts and Cambridge City to ensure that proposals for new development contained in emerging development plan documents are located in sustainable locations. In addition, development plan documents for Cambridgeshire specify the need for mixed use developments which offer a range of facilities and amenities to new residents including employment, education and health care in order to reduce the need to travel. We also develop our Market Town Transport Strategies with new developments in mind, thereby identifying the need for cycle routes linking new communities to schools and jobs. In combination, these approaches will help to ensure that climate change and congestion impacts of new developments can be minimised.

Chapter 4 provides further detail on the development plan documents for Cambridgeshire.

Smarter choices and technology

Smarter choices are measures that aim to encourage sustainable travel by influencing individual travel behaviour and reducing the need to travel. As noted above reducing the need to travel and encouraging remaining trips to be made by sustainable modes rather than by private car are key to reducing carbon emissions in the county. Evidence shows that intensive smarter choices programmes can bring about significant reductions in CO_2. For example, in Peterborough, there were reductions of 31 million car kilometres and 6,400 tonnes of CO_2 per year between 2004 and 2008 as a result of the **Sustainable Travel Demonstrations Town** project.

We will support the introduction of smarter choices measures which reduce the need to travel. These include

- Encouraging flexible or home working through the provision of information technology
- Travel planning
- Improving information and understanding of making trips by foot, bicycle and public transport
- Incentivising people to choose more sustainable modes of travel where possible
- Considering the development of car clubs close to or within new developments to reduce traffic and emissions
- Integrated highways management centre
- Converting on-street residents and pay and display parking bays into car club use only.

Further detail of our plans to implement smarter choices can be found in Challenge 3.

Encourage and promote the use of greener vehicles and fuels

Due to the large scale growth planned for the county and the need to reduce vehicle emissions, tackle climate change and promote low carbon living, it will be essential to encourage and promote the use of greener vehicles and fuels alongside our strategy to get more people to walk, cycle and use public transport. The Department for Transport's **Low Carbon Transport: A Greener Future** states that nationally, vehicles will be more fuel efficient by 2022. This will mainly be achieved through advances in engine technology. In conjunction with this, vehicles with even lower emissions will be more readily available and affordable on the open market than they are today – it is expected that new cars will emit on average 40 percent less CO_2 than they do today.

While this is to be welcomed, action is still required to investigate new technologies and fuels more locally. At present, the lack of charging infrastructure and the cost and availability of electric vehicles is a real barrier to increasing the use of these types of vehicles. We are therefore supporting the East of England Plugged in Places project which has secured some £7 million from the East of England Development Agency (EEDA), European Regional Development Fund (ERDF) and other private and public sector organisations. The Plugged in Places project is an initiative to install publicly accessible electric charging points for electric vehicles in cities and regions in the UK. The initial focus of the project is on 8 key clusters supported by a wider charging network, Cambridge has been put forward as one of these key clusters. In the East of England as a whole some 1,200 charging points will be provided on-street in urban areas, within public car parks, in company car parks, retail and leisure sites, at transport interchanges and at individual homes. We fully support this project and will seek to integrate future charging points with other elements of our strategy. We would also support and encourage the use of greener vehicles in pool car and car club schemes.

Throughout the life of the Plan we will keep up to date with research on electric vehicles and alternative fuels to help inform our strategy and future implementation plan as appropriate.

Public transport

One of the main aims of this LTP is to encourage more people to use public transport instead of the private car. However, this brings a number of challenges in terms of increased emissions such as particulates, nitrogen dioxide and carbon which we need to tackle. Buses that will use The Busway will run on bio-fuel when The Busway opens. These buses are already operating on the route between Huntingdon and Cambridge, contributing towards a reduction in emissions. We are working closely with bus operators to further improve the bus fleet in the county and reduce vehicle emissions and will encourage bus operators to increase the number of vehicles which run on bio-fuels.

We fully support the government's proposals to reduce carbon emissions for rail by taking forward plans to electrify more of the rail network, and to encourage better energy and carbon efficiency on the railways. Our proposals to help encourage additional rail travel can be found on page xx.

Tackling our own emissions

We are also working hard to reduce our own emissions through our **Climate Change and Environment Strategy** which was adopted as Cambridgeshire County Council's policy framework in 2008. It reflects the Council's commitment to mitigation for and adaptation to climate change and sets out how we will work to tackle our own environmental impacts, and how we will work with partners to address environmental issues across the County. It is closely aligned with the Council's strategic objectives, and sets out how we will meet the environmental sustainability and climate change aspects of these. Examples of what we are doing include the following.

- We have set a business mileage reduction target – we are committed to reducing our business mileage by 10%
- We continue to implement our Travel to Work Strategy which encourages more people to travel to work by public transport, walking and cycling across all our sites
- Reduce emissions from County Council highway maintenance vehicles
- Reduce emissions from County Council buildings

Contributing to the Green Infrastructure Strategy

The provision of green infrastructure such as parks and bridleways contributes to and enhances quality of life by improving access to the countryside which in turn increases the opportunity for physical activity and also encourage more people to walk and cycle. This can lead to improved health and well-being, as well as a sense of community and improved quality of life.

To ensure that green infrastructure is provided to support the significant growth in housing provision over the next 20 years, a **Green Infrastructure Strategy** for Cambridgeshire was first developed in 2006 and is currently being reviewed and updated. The new strategy is expected to be completed in 2011. The four objectives for the strategy are:

- Reverse the decline in biodiversity
- Mitigate and adapt to climate change
- Promote sustainable growth and economic development
- Support healthy living and wellbeing

A strategic network of green infrastructure in Cambridgeshire has been clearly identified in the new strategy and there is a clear and simple strategic county-wide approach. A strong evidence base for the strategy means it supports the planning process and in particular will support Local Development Framework (LDF) documents and strategic funding systems such as the Community Infrastructure Levy (CIL) or similar.

The LTP complements the Green Infrastructure Strategy by supporting the maintenance and provision of Public Rights of Way, access to the countryside and the provision of sustainable transport.

A well-developed Rights of Way network is essential in providing access to the countryside. The **Green Infrastructure Strategy**, the Local Transport Plan and the **Rights of Way Improvement Plan** (ROWIP) outline plans for improving Rights of Way to enhance public access to the countryside. The ROWIP includes a strategy for the improvement of Public Rights of Way and together with the Green Infrastructure Strategy aims to provide a well connected network of routes and Green Infrastructure that is accessible to the public to enjoy. The ROWIP highlights the role that Rights of Way play in reversing the fragmentation of habitats and biodiversity by restoring the connectivity between them, providing access corridors which double as diversity corridors.

Reduce transport-related noise pollution

As noted in Chapter 3 transport-related noise pollution has a significant affect on quality of life, health and the local environment. Noise mitigation measures such as barriers will be considered and implemented as part of major infrastructure projects. In addition, noise-reducing road surfacing will be considered and put in place where needed. We will also continue to encourage walking and cycling as sustainable environmentally-friendly forms of transport to reduce noise pollution, and will work with bus operators to improve the bus fleet which will help to bring about environmentally friendly, quieter vehicles.

Strategic Environmental Assessment and Habitats Regulation Assessment

In line with our statutory duty, we have undertaken both a Strategic Environmental Assessment (SEA) and Habitats Regulation Assessment (HRA) on our LTP3 to identify any significant environmental impacts of any of the transport policies, schemes and measures contained within our Polices and Strategy document and Implementation Plan.

More detail on SEA - to be taken from ER when completed

Under the Conservation of Habitats and Species Regulations 2010 (the Habitats Regulations) the first stage of the Habitat Regulations Assessment process (Stage 1 - Screening) has been undertaken of the LTP3 in order to see whether its proposals could result in likely significant effects upon international sites. International sites are those that have been designated for their international nature conservation interests and include:

- Special Areas of Conservation (SAC) designated under European Council Directive 92/43/EEC(a) on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive)
- Special Protection Areas (SPA) designated under the European Council Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive)
- The UK Government in the Circular accompanying Planning Policy Statement 9 Biodiversity and Geological Conservation has as a matter of policy chosen to apply the Habitats Regulations Assessment procedures in respect of Wetlands of International Importance (Ramsar sites), candidate SACs (cSACs) and potential SPAs (pSPAs) even though these are not European sites as a matter of law

There are # international sites within Cambridgeshire including: ####. There are also # international sites within ## km of the LTP3 boundary including: ###.

The HRA Stage 1 Screening of the LTP3 has found that there are no likely significant effects on these international sites.

Other policies and initiatives that impact on this challenge

- Planning Policy Guidance 13: Transport **PPG13**
- **Planning for a Sustainable Future 2007**
- Planning Policy Statement: Planning for Climate Change - Supplement to PPS1 **PPS**
- Draft Planning Policy Statement: Planning for a low carbon future in a changing climate **Draft PPS**
- Planning Policy Statement 7: Sustainable Development in Rural Areas **PPS7**
- Local Plans / Local Development Frameworks
- **Cambridge Climate Change Strategy and Action Plan** (2008)
- Joint Air Quality Action Plan
- Planning Policy Statement 9: Biodiversity and Geological Conservation **PPS9**
- Draft Planning Policy Statement: Planning for a Natural and Healthy Environment **Draft PPS**

- **Cambridge Minerals and Waste Plan** and emerging revision
- **Cambridgeshire Landscape Guidelines 1991**
- **Natural Environment and Rural Communities Act 2006**
- **Natural England Guidance on Local Transport Plans and the Natural Environment**
- **Green Infrastructure Strategy**
- **Air Quality Management Areas and Action Plans**
- **Flood and Water Management Act**
- **National Air Quality Strategy**
- Continuation of OLEV consumer grant to encourage switch to ultra low carbon vehicles

Challenge 8: Influencing national and local decisions on land-use and transport planning that impact on routes through Cambridgeshire

Our vision is to ensure that the transport challenges facing Cambridgeshire are fully considered in national and local decision making and that improvements are made to trunk roads and railways in Cambridgeshire in order to get the best for services and infrastructure, and improve quality of life for the people who live, work and travel in Cambridgeshire. The sections below summarise the key national planning and transport policies that affect Cambridgeshire.

National planning policy

National planning polices form a particularly important part of the wider context of this LTP, setting the scene for the development strategy for the county. It is important that we are able to influence national policy and any decisions made. We will achieve this by participating in national consultations, sitting on national groups and lobbying to raise the profile of the needs of Cambridgeshire. National planning policy and guidance particularly relevant to this Plan include the following.

Planning Policy Guidance Note 13 (PPG13) sets out the government's principal policies relating to transport and planning, seeking to ensure co-ordination between land use planning and transport with the aim to reduce reliance on the private car, reduce the growth of motorised journeys and encourage the use of environmentally friendly transport. It details objectives to integrate planning and transport at the national, regional, strategic and local level and to promote more environmentally sustainable transport choices both for carrying people and for moving freight. In this way, planning policies can increase the effectiveness of other transport policies and help maximise the contribution of transport to improving our quality of life.

The principles of PPG13 have been fully integrated into Local Development Frameworks and the LTP. These important principles will help to ensure that our LTP strategy is as effective as it can be.

The Planning for a Sustainable Future (White Paper) of 2007 proposes reforms to the planning system in response to the challenges of economic globalisation and climate change. Sustainable planning of infrastructure relating to energy, waste, waste-water and transport is addressed in the White Paper. It emphasises the importance of planning in delivering sustainable development, including the delivery of the infrastructure which provides access for everyone to essential transport and recognises that local planning can give local communities real opportunities to influence and take action on climate change.

The Planning Policy Statement: Planning and Climate Change – Supplement to Planning Policy Statement 1 (2007) sets out how planning should provide for new homes, jobs and infrastructure required by communities and how it can take place in a way that minimises carbon emissions and is resilient to climate change. It contains two key planning objectives that can be met through the LTP. These are to improve sustainable travel options and reduce the need to travel by car.

Draft Planning Policy Statement: Planning for a Low Carbon Future in a Changing Climate (2010) supplements PPS1 by setting out how planning should contribute to mitigating climate change and adapting to its impacts. The Draft PPS contains two policies which aim to support the take up of electric and plug-in hybrid vehicles and create and secure opportunities for environmentally sustainable transport.

PPS7: Sustainable Development in Rural Areas, supports these objectives and states that decisions on the location of development in rural areas should, where possible, give people the

greatest opportunity to access them by public transport, walking and cycling, consistent with the main purpose of the development.

The Government is also keen to promote cycling and walking through providing new links and developing networks of green infrastructure. As the Draft PPS Planning for a Natural and Healthy Environment highlights, planning should deliver safe and attractive places to live, which promote health and well-being, by ensuring that people have access to high quality open spaces, green infrastructure and sports, which are safely and easily accessible by walking, cycling and public transport. Planning should also promote access and appropriate recreational opportunities in rural and coastal areas to enable people to enjoy the countryside

National Transport Policy

Government has highlighted its key overarching transport policies in its Business Plan 2011-2015 as those which help grow the economy and help tackle carbon emissions – i.e. green growth. Government also supports the need for safer, less congested and less polluted roads which contribute towards improved quality of life in our communities. This LTP reflects these national priorities as two of our five overarching objectives concentrate on the need to grow the economy and tackle climate change and are key priorities for the Council as a whole as well as the emerging Local Enterprise Partnership.

The Government's top five priorities are as follows[20]:

1. High speed rail
2. Secure our railways for the future
3. Encourage sustainable local travel
4. Tackle carbon and congestion on our roads
5. Promote sustainable aviation

The Government proposes to free local government from central government control, handing more power to transport users by giving them the information they need to hold Government and transport providers to account. Our approach for monitoring the success of this Plan in set out in Chapter 5.

We will take account of new national transport policy as it emerges.

The LTP must also take into account legislation for both the rail and bus industry, notably the Local Transport Act 2008 and Delivering a Sustainable Railway 2007.

In partnership with our District Councils we will continue to participate in consultations related to transport such as those concerning air quality, climate change, buses, rail and overarching transport policy to ensure that the needs of Cambridgeshire are best represented in national policies and plans.

Rail

Rail is an important mode of travel in Cambridgeshire, with a number of railway lines serving communities in Cambridgeshire including:

- Peterborough to London Kings Cross
- Kings Lynn to London (Liverpool Street and Kings Cross) via Ely and Cambridge
- Ely to Peterborough
- Cambridge to Norwich

[20] DfT Business Plan 2011- 2015

- Cambridge to Ipswich via Newmarket
- Ely to Ipswich

Securing our railways for the future is one of the top priorities for central Government, with Network Rail, DfT Rail and Train Operating Companies being responsible for the provision of train services and railway infrastructure. It is therefore important that we continue to work closely with the rail industry to lobby for improvements to Cambridgeshire's rail network through consultations on Route Utilisation Strategies and involvement in regional and national rail groups. Particularly, we would support the introduction of longer franchise periods to encourage Train Operating Companies to increase investment in railway stations and services.

As detailed earlier in our strategy, we continue to progress plans for a new station and interchange at Chesterton and will work with the rail industry to bring the scheme forward. In addition, we support plans for a new island platform at Cambridge Station. Outside of Cambridge we will work with East Cambridgeshire District Council, Network Rail and National Express East Anglia to investigate the feasibility of providing a railway station at Soham to support the planned growth of the town. Further detail on how we will help to encourage rail travel is set out in our strategy for addressing the challenge *to make sustainable modes of travel a viable and attractive alternative to the private car*.

The trunk road network

The Highways Agency (HA) is responsible for the county's trunk roads, namely the A14, A11, M11, A1 and A1(M), A47 and A428 as shown in Figure xx (in chapter 4). Changes and improvements to the trunk road network can have considerable impact on the transport network that the County Council is responsible for. For example, accidents on the A14 cause congestion in the surrounding area and can lead to rat running on local roads in villages along the route. This in turn leads to increased air pollution, congestion and reduced quality of life in these villages.

It is therefore important to continue to work closely with the Highways Agency to help bring about improvements to the trunk road network where appropriate and necessary. The following section sets out the main issues with the trunk road network in Cambridgeshire and details any improvements planned.

A14 corridor

The A14 is a major east/west route linking the Midlands with the east coast ports. A large part of the route falls within Cambridgeshire and this is one most congested sections as it links with M11 and A1(M) at either end carrying local, regional and international passenger and freight traffic.

The Cambridge to Huntingdon Multi-Modal Study (CHUMMS) was completed in 2001, recommendations included:

- Introduction of Rapid Transit (Guided Bus) System between Cambridge and Huntingdon, linking the new development at Longstanton / Oakington / Northstowe
- Widening of A14 to a dual 3 lane carriageway between Stow-Cum-Quy and Fenstanton and realignment of the route west of Fenstanton to Ellington, with 4 lanes between Girton and Histon
- Series of new parallel roads to serve existing and new developments
- Improvements to the Girton, Histon and Milton Interchanges on the A14 and Junction 13 on the M11
- Development and extension of demand management measure in Cambridge and
- Upgrade of the Felixstowe to Nuneaton rail line for freight.

The suggested measures arising from CHUMMS have had a major impact on our transport policy. This includes the extension of demand management measures in Cambridge through the

expansion of the Core Traffic Scheme, extending interchanges and Park and Ride sites to other urban areas in the county and the coordination of initiatives in Market Town Transport Strategies.

The proposed A14 Ellington to Fen Ditton improvement scheme was deleted from the National Roads Programme in the 2010 Comprehensive Spending Review as unaffordable. Government have indicated that a study of the alternatives will be carried out. We will continue to support and lobby for that vital scheme until an appropriate alternative is identified. In addition, we plan to set up an A14 Alliance with other local authorities, businesses and stakeholders to maintain recognition of the need for substantial improvements on the route and secure other sustainable improvements along the route. The removal of the A14 improvement scheme from the National Roads Programme will have an impact on the local transport network. For example it could lead to increased rat-running through villages along the route, more localised congestion as drivers seek alternative routes to the A14, and worsening air quality along the route and in nearby villages. Furthermore, there will also be an impact on the joint development strategy for Cambridgeshire, particularly on Northstowe, Cambridge fringe sites and Huntingdon.

CHUMMS also recommended improvements to the Felixstowe to Nuneaton rail line for freight. The proposals include double-tracking part of the line at Ely to cater for the increased volume of freight traffic – up to 56 freight trains per day. While we support and want to encourage freight to be transported via rail rather than by road, this proposal will increase the down time of the level crossing in Ely and consequently increase congestion around Ely station and the low bridge. This area already experiences congestion when the level crossing is down and this is set to worsen. We will therefore continue to investigate the provision of the Ely Southern Link Road and other alternatives to reduce congestion at the level crossing. Further detail on this proposal can be found in Chapter 4.

A47 corridor

The A47 links Norwich with Peterborough, via Wisbech. A government multi-modal study investigated current and future needs of the A47 and the rail link between Norwich and Peterborough. Proposals from the study included:

- Improvements to sections of the A47 between Peterborough and Norwich, and consideration of dualling in the longer term
- Local bus strategies with improved bus interchange facilities
- Improved bus services between the market towns of Peterborough and Norwich
- Potential for improved interconnection between services at Ely and Cambridge, and
- Improved rail freight operations at Ely.

Cambridgeshire County Council officers (along with officers from Fenland District Council, Norfolk County and District Councils) are part of the A47 Alliance. This Alliance supports and lobbies for the dualling of the A47 through Peterborough and parts of Norfolk, including the Norwich bypass.

London to South Midlands (LSMMS)

This multi-modal study looked at transport links between London and the South Midlands including the A5, M1, A1 and M11 and the east-west corridor, including A421/428 and A14 as well as rail improvements. The Study recommended:

- Reinstatement of east-west rail link between Cambridge and Oxford and between Bedford and Stansted
- Upgrading capacity on all main rail routes to London
- Widening of the M1, A1(M) and M11
- Widening the A14 corridor with a three lane dual carriageway from Cambridge to A14/M1/M6 junction at Catthorpe
- A Kettering bypass

- Upgrading the A428/A421

The A428 has recently become a dual carriageway from Hardwick to Caxton Common. As a result the east-west corridor from Ipswich to Milton Keynes/M1 is entirely dual carriageway with the exception of a stretch of the A421/A428 between Caxton Common and Black Cat Roundabout in St Neots. Cambridgeshire County Council, along with Bedfordshire, South Cambridgeshire and Huntingdonshire councils, wants to see the short section remaining widened to complete the dual carriageway and thereby complete the dualling of the east-west corridor.

We will continue to participate in national consultations regarding trunk roads, the rail network and other national strategies related to transport and lobby for improvements in the county.

Local policies

HCV Freight Advisory Map and Cambridgeshire Lorry Management Strategy

The fast and efficient delivery of goods is very important to the economy. While we want to encourage freight to be transported by rail, it is recognised that this is not feasible in all cases, and where freight has to be transported via the road network, this should not be at the expense of the environment and local communities.

The Advisory Freight Route Map provides operators with our preferred routes for planning their journeys, enabling operators to avoid unnecessary journeys through local communities unless making a delivery.

Parish Plans and the Rural Strategy for Cambridgeshire

Many parishes in Cambridgeshire have produced their own locally driven Parish Plans which include transport measures that the local community would like to see implemented. The County Council recognises that these Plans are an important part of community engagement and often contain transport schemes which would assist in meeting the strategic objectives of the Local Transport Plan and in this context is supportive of such plans. The County Council works with district and parish councils to bring forward small transport improvement schemes through the Jointly Funded Minor Improvement programme. This enables parish and district councils to contribute towards minor improvements such as parking restrictions or crossing facilities.

The County Council also supports the draft Rural Strategy, (produced by Cambridgeshire Acre) for Cambridgeshire 2010-2015 which aims to tackle issues such as rural poverty and deprivation, affordable housing and community engagement. The County Council's Community Engagement Strategy seeks to make strong links between Parish Plans, Neighbourhood Panels and the Local Strategic Partnerships.

Poor access to transport contributes to deprivation, particularly impacting on people's ability to access employment, education and health facilities. The Strategy states that 33% of rural households say that their local public transport needs to be improved, rising to 37% in the most rural areas . This is compared to 20% in urban areas. The LTP has a key role to play in reducing deprivation across the county by helping to facilitate better access to key services through improved walking and cycling routes, better information, and enhanced public transport options such as bus service, community transport and rail services.

The County Council supports Parishes seeking to project manage and deliver their own schemes, where this is appropriate and where such schemes meet the County's strategic transport objectives and policies.

Big Society

The government's proposals for a 'Big Society' will put more power and opportunity into people's hands to solve the problems they face and build the Britain they want. These proposals will impact on both transport and land-use planning. The Plan will take account of new arrangements as they come forward. Neighbourhood Panels will continue to provide a useful way of engaging with the public on transport issues.

Funding

Historically, much of our transport funding has come either directly from central government via the local authority financial settlement or is allocated via bidding rounds to particular funding pots, such as the Growth Area Fund and Housing Growth Fund. A significant proportion of our funding also comes from developers through Section 106 Agreements.

Given the current financial climate and the probable cuts to public sector spending we will need to work closely with our partners to secure funding from a range of public and private sources in order to bring about transport improvements. Furthermore, we will need to develop high quality business cases and effective schemes with high value for money that also contribute to wider objectives of growing the economy and tackling climate change.

Our emerging Local Enterprise Partnership will play a key role in securing funding for transport and other projects that will help to meet our LTP objectives, particularly those aimed at growing the economy and tackling climate change.

5. Conclusion

This third Local Transport Plan builds on our second Local Transport Plan to reflect new policy, guidance, opportunities and the current economic climate. Our overarching transport strategy reflects the need to address existing transport issues while at the same time catering for the transport demands of the growth agenda and meet the needs of vulnerable groups such as children and young people, and older people. While addressing these issues will we aim to meet our key objectives of enhancing the economy and tackling climate change. The LTP also sets out our Implementation Plan for 2011/12 demonstrating how we will spend our funding to meet these objectives. The Implementation Plan also shows how we will use our performance management system to monitor our progress. Overall, the LTP demonstrates how transport in Cambridgeshire will be improved over the coming years, all be it with limited funding in the early years of the Plan.