Cambridgeshire Local Transport Plan 2011-2031

Policies and Strategy

July 2015

Graham Hughes
Executive Director, Economy, Transport and Environment
Cambridgeshire County Council
Shire Hall
Castle Hill
Cambridge CB3 0AP

Third Cambridgeshire Local Transport Plan 2011-2031
LTP: Policies and Strategy document **version 1.2.1**, July 2015
For information on the review and update of this document since it was first adopted in March 2011, see the LTP: Change Log at http://www.cambridgeshire.gov.uk/ltp.

Contents

Executive Summary

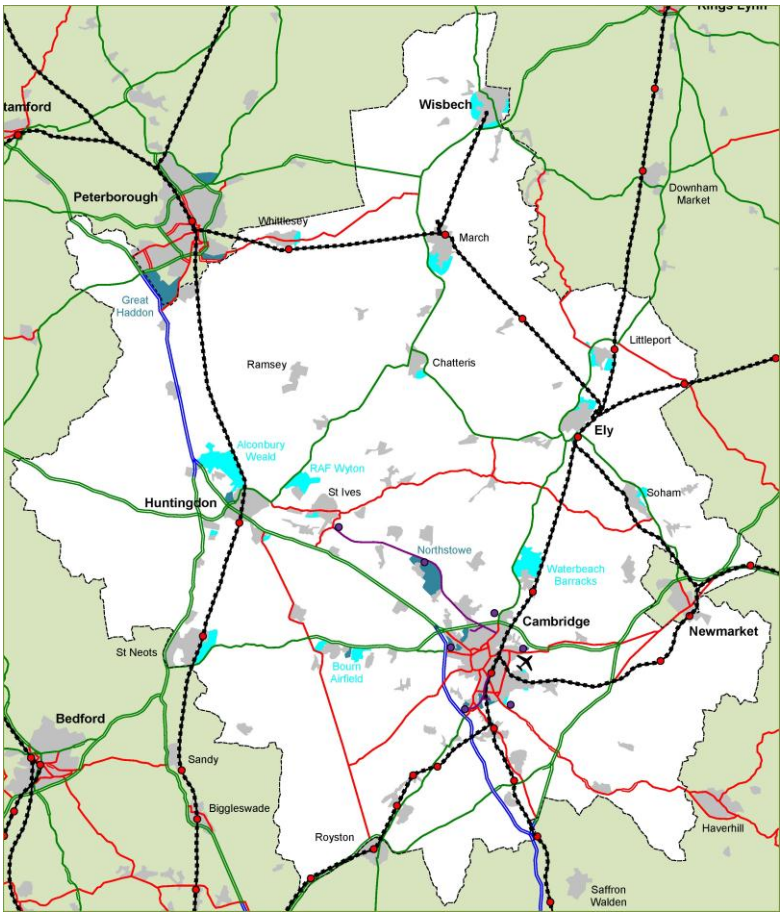
This is Cambridgeshire's Third Local Transport Plan (also referred to as the LTP, LTP3 and the Plan) and covers the period 2011-2031.

The Plan is split in to three main parts:

- This **Policies and Strategy** document sets out the Plan's objectives, problems and challenges and the strategy to meet the challenges.
- The **Long Term Transport Strategy** provides a high level view of the more substantial transport infrastructure and service enhancements that are needed across the county.
- The **Transport Delivery Plan** is essentially a business plan detailing how we will deliver the LTP3 Strategy. It details our programmes for the delivery of improvements to the transport networks managed by the County Council, and also for the day-to-day management and maintenance of the network.

Opportunities

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, particularly given the current economic climate.



Major housing and economic growth sites across Cambridgeshire

However, a City Deal for the Greater Cambridge area will provide up to £500 Million to invest in transport infrastructure in the next 15-20 years. We are therefore well placed to deliver improvements for the Cambridge area identified in the LTP Long Term Transport Strategy (and in the Transport Strategy for Cambridge and South Cambridgeshire that sits under it) that will supports economic and housing growth.

Even with the opportunity that City Deal funding brings, there are many other challenges we face across the county, and it is vitally important that the LTP sets a robust policy framework that leaves us well prepared to take advantage of further 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, council priorities and local consultation as and when needed. The Transport Delivery Plan will be updated on an annual basis.

Partnership and involvement

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 Transport Delivery Plan documents have also been informed by public and stakeholder consultation, so that these documents reflect local people's views and concerns.

Vision

This LTP was produced during a period of significant change, particularly in terms of the regional planning framework and the 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"

Funding

In the LTP3 period to date, our ability to deliver transport improvements in Cambridgeshire from traditional sources has been relatively limited compared to LTP1 and LTP2. However, other funding opportunities have allowed us to maintain levels of expenditure on new infrastructure and on road maintenance.

Broad Street March, looking south into the High Street

City Deal will allow us to address many of the transport challenges we face in the Greater Cambridge area. Measures in this LTP have also fed into the Greater Cambridge Greater Peterborough Enterprise Partnership's (GCGPEP) Strategic Economic Plan. The GCGPEP is seeking funding for a Growth Deal with government that will allow delivery of many of the transport schemes that are necessary to support growth in Cambridgeshire, Peterborough, Rutland and the other GCGPEP areas.

We are also seeking further Local Sustainable Transport Funding from government to continue our successful programmes of behaviour change measures in 2015/16, and hopefully beyond.

Monitoring and performance

Monitoring the effectiveness of our Policies and Strategy document and Transport Delivery 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.

Cyclists, pedestrians, buses and cars crossing the Hills Road railway bridge in Cambridge in the morning peak hour (Creative Commons licensed image, Klaas Brumann; CycleStreets #4882)

Objectives and challenges

The LTP3 document addresses the County Councils priorities. These are:

- Supporting and protecting people when they need it most
- Helping people to live independent and healthy lives in their communities
- Developing our local economy for the benefit of all

However, given that the plan was an evolution of LTP2, it also took forward that plans focussed strategic objectives:

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

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 dioxide 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, where appropriate and maximising the capacity and efficiency of the existing network

We will continue to investigate the potential to manage demand using the experience we have already gained within the county where this 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 it 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 will 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.

The planned new town of Northstowe

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, we aim 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.

Cambridge Dial-a-Ride

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

We will reduce carbon dioxide emissions through a programme of smarter choices measures, improvements to sustainable travel options and the management of car use. We will work with the district councils to reduce levels of air pollution in order to meet national objectives, by managing and reducing vehicle emissions and encouraging increased usage of sustainable modes of transport. We will address the impacts of our schemes on the environment, including noise, heritage, biodiversity and landscape impacts.

Measures to manage demand will also be investigated where appropriate in order to manage congestion and maintain accessibility. We will investigate and utilise new technologies as they become available. Environmental issues such as protecting biodiversity and impacts on the landscape will be considered at the earliest stages of transport projects and we will support the provision of green infrastructure.

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.

The A14 at Dry Drayton

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.

Major Schemes

The Long Term Transport Strategy sets out the scale of infrastructure provision that is needed to address current problems and provide for economic growth, informed by the policy basis in this document. This Policies and Strategy document provides detail of a number of major transport schemes that are planned to commence delivery in the next five years. Updates to this document will reflect progress on these schemes and will cover additional schemes as they come forward for delivery.

Conclusion

Our LTP3 Policies and Strategy, Long Term Transport Strategy and Transport Delivery 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 of falling core resources, but also of tremendous opportunity.

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 Transport Delivery Plan and by monitoring our performance against indicators relevant to local communities.

1. Introduction

This Policies and Strategy document forms part of Cambridgeshire's refreshed Third Local Transport Plan (also referred to in this document as the LTP, LTP3 and the Plan) for the period 2014 – 2031. The LTP Policies and Strategy document sets out the transport challenges we face and our strategy to address them over the next 15-20 years.

LTP3 has two further parts:

- The Long Term Transport Strategy gives a high level view of the substantial transport infrastructure and service enhancements that are needed across the county.
- The Transport Delivery Plan sets out the programme of schemes that we will deliver in the next two to three years, and an indicative medium term look at major schemes that are being brought forward.

Route A Bus on the Busway en-route to St Ives

The Plan has been updated from the original LTP3 (that was submitted to Government in 2011) in accordance with the County Council's duty to maintain an up to date Local Transport Plan as set out in Local Transport Act 2008[1]. There are a number of factors contributing to the decision to refresh the LTP at this time. These are:

- To reflect the longer timescales for the Local Planning Authorities' emerging Local Plans to 2031 (2036 in Huntingdonshire), and to provide support for future planned development and the growth agenda more widely.
- To incorporate the new Transport Strategy for Cambridge and South Cambridgeshire (TSCSC). This strategy was adopted as a daughter document to LTP3 in March 2014.
- To incorporate the Long Term Transport Strategy (LTTS) as an LTP3 core document.
- To refresh the Strategic Environmental Assessment (SEA), Habitats Regulation Assessment (HRA) and Community Impact Assessment (CIA) as part of the evidence base underpinning the LTP.
- To set the principle of the first LTP3 Implementation Plan being incorporated into the County Council's detailed Transport Delivery Plan, which will fulfil the role of LTP Implementation Plan from April 2015 (see below).
- To reflect the current funding environment for transport schemes (that has changed considerably since 2011).
- To refresh the text of this document to contain up to date case studies, scheme delivery information and statistics.

The LTP3 refresh has not amended the policy basis of LTP3, or the objectives and challenges. The core structure of the LTP Policies and Strategy document has not been

[1] The Local Transport Act 2008 removed the requirement to prepare a new LTP every five years, and replaced it with a requirement to keep the LTP under review and replace it as the authority sees fit.

substantially amended from the document published in 2011, with the following exceptions:

- Chapter 2 of this document now includes information on targets and indicators that was previously incorporated in the Implementation Plan.
- This document now incorporates summary information on major schemes that are planned to commence delivery in the next five years in a new Chapter 5.
- A new Chapter 6 in this document now includes context on the funding environment and programme development that was previously incorporated in the Implementation Plan.

The Long Term Transport Strategy incorporates a more substantive commentary on major schemes expanding on the text that was previously included in the Implementation Plan.

The County Council's Transport Delivery Plan (which sets out a detailed two / three year rolling transport programme and is updated annually) will fulfil the role of the LTP3 Implementation Plan from April 2015 onwards.

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. We will try and be innovative in the way that we use funds that are available and continue to prepare strong bids to funding streams as they become 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 LTP is intended to be a live document. As with this refresh, the Policies and Strategy document will be updated to reflect changes in the wider local and national policy context as and when needed. The Transport Delivery Plan will be updated on an annual basis to maintain a rolling three year programme from 2015 onwards.

The scope of the LTP

What funding is available?

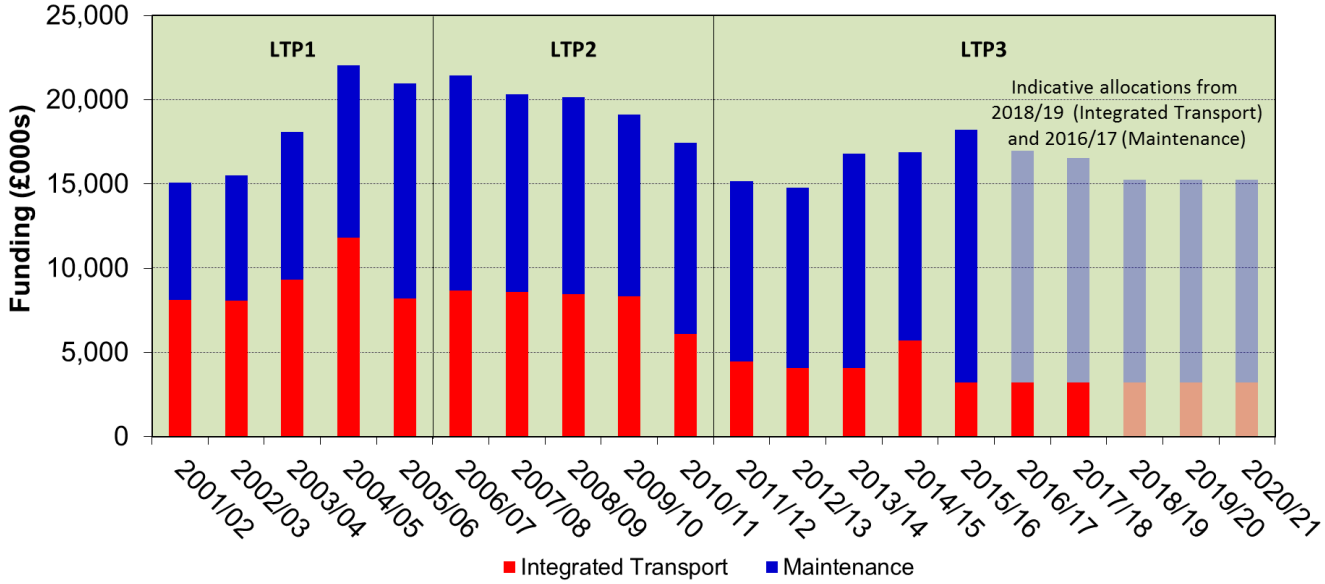
The funding environment overall for Local Government is challenging, and grant funding available for local transport improvements and maintenance directly from government has been around 21% lower in the first four years of LTP3 compared to the five years of LTP2. Figure 1.1 shows funding we have received from government for Integrated Transport and Maintenance since 2001/02.

However, other opportunities have been available, and investment in new infrastructure has continued with funding from sources such as the Local Sustainable Transport Fund (£5M) and the Better Bus Areas Fund (£1.7M), and from developer funding.

Integrated Transport funding from government will drop by 44% in 2015/16, as £200M of the £458M available nationally is moved into the Local Growth Fund. Compared to the start of the LTP period in 2001/02, the spending power of Cambridgeshire County Council from this source has reduced by over 75%.

The maintenance funding allocation for 2015/16 was announced in December 2014. Future year's allocations will have an incentive element based on efficiency and asset management. There will also be a challenge fund for major maintenance schemes.

Figure 1.1. LTP core funding allocations for Cambridgeshire in the LTP1, LTP2 and LTP3 periods



The City Deal that has been negotiated between the County Council and its partners and government will bring in funding at a level that will allow very significant investment in infrastructure to support growth in Cambridge and South Cambridgeshire. Up to £500 million grant funding may be available from City Deal in the 15-20 years from 2015/16.

Initiatives such as the Local Growth Fund may bring further investment opportunities, although the initial Growth Deal (focused on 2015/16) between Government and the Greater Cambridge Greater Peterborough Enterprise Partnership is disappointing.

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.

Traffic at Witcham Toll on the A142 to the west of Ely

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.

Due to the reductions in funding compared to the previous five years, it is therefore difficult for the Plan to deliver the fullest 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 of traditional bus services. 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. It can also help to develop more innovative approaches to transport provision.

What does £1,000,000 of investment in transport infrastructure buy?[2]

Transport Infrastructure tends not to be cheap. The list below gives some sample scheme costs in 2011.

- 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 to 3M per km.
- ⅓ - ½ of a cycle bridge over river or railway, such as Riverside Bridge, Cambridge at £2 to 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 £1.5 to £2.5M per km.
- 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 km.
- 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 people travelling in Cambridgeshire, and the needs of the economy and environment. It is only by doing this that we will be able to make the case for investment through processes such as City Deal or Growth Deal, or for investment from development.

Since LTP3 was first adopted in 2011, the development of the Transport Strategy for Cambridge and South Cambridgeshire and the Long Term Transport Strategy have provided more comprehensive detail on the specific transport capacity needed to provide for planned growth, and have been critical in shaping both the City Deal and Growth Deal proposals.

[2] 2010 Prices

In setting out our strategy for the next 15-20 years, we therefore provide the policy basis on which we can continue to make the case for funding to help maintain and enhance the transport network in Cambridgeshire.

What has already been achieved?

Our previous two Local Transport Plans covered the periods 2001 – 2006 and 2006 – 2011 respectively. Many transport improvements have been delivered through previous plans, including the following.

- Major schemes
  - The A1198 Papworth Everard bypass
  - The A142 Fordham bypass.
  - Addenbrooke's Road.
  - The Busway and parallel cycleway between Cambridge and St Ives.
  - Huntingdon West of Town Centre Link Road.
- Expansion of the five Cambridge Park & Ride sites.
- Numerous road safety schemes, including:
  - New pedestrian / cyclist crossing on the Sawston Bypass.
  - Signalisation of the A141 / A605 Hobbs Lot junction.
  - Signalisation of the Mitchams Corner gyratory system in Cambridge.
- Pedestrian and Cycle infrastructure.
  - The Coldhams Lane and Bridge and Riverside Bridge in Cambridge.
  - The Willow Bridge in St Neots.
  - New cycle routes / infrastructure:
    - Hills Road Bridge, Cambridge.
    - A505 cycleway linking to Whittlesford Parkway Station to Granta Park.
    - A1307 cycleway linking to Babraham Park & Ride to Wandlebury Country Park.
- Expansion of the Cambridge Core Traffic Scheme
  - Phase 3: Silver Street and Phase 4: St Andrews Street.

Construction of Busway bridge over railway at Addenbrooke's

The Hobbs Lot junction of the A141 between March and Wisbech, and the A605 to Whittlesey

Babraham Park & Ride to Wandlebury Country Park cycle route

- Public transport improvements
  - A new bus station at Addenbrooke's hospital.
  - Ongoing programme of bus stop improvements and rollout of real time passenger information countywide.
- Improvements to the Rights of Way network.
- Cambridgeshire Travel for Work Partnership.

Cambridge Core Traffic Scheme Phase 3 – Silver Street

These schemes, and others implemented through the LTP, have resulted in:

- Increased bus use across the county.
- Nearly 4 million Park & Ride journeys per year.
- 29% of journeys to work in Cambridge are made by cycle, 9% of journeys in Cambridgeshire.
- Reduction in road casualties.

Maintaining momentum in challenging times

We have been able to broadly maintain levels of spending on new local transport schemes. Programmes that have been and continue to be delivered include:

- **Greater Cambridge Cycle City Project (GC3)**
  £4.1M secured from the Department for Transport's Cycle City Ambition Grant, complemented by a £4.1M local contribution. Funding to be spent by March 2015 with the aim of providing separate cycle lanes on main roads into Cambridge and creating good quality cycleways to employment areas in South Cambridgeshire.
- **Better Bus Areas Fund**
  £1.7M of funding from DfT and with match funding from local partners – a total investment of £5.2M – to increase bus use by reducing congestion, improving bus journey times and increasing the attractiveness and accessibility of buses. Funding focussed on Cambridge in 2012/13 to 2013/14. Measures have included 500 additional spaces at Babraham Road Park & Ride site, the launch of a real time bus info app for smartphones, 11 new buses added to the Stagecoach Citi 2 fleet and improved school drop off facility at Trumpington Park & Ride site.
- **Local Sustainable Transport Fund**
  £5M of funding focussed on Ely to Cambridge and Huntingdon to Cambridge corridors from 2012/13 to 2014/15, to reduce congestion and help improve journey choices. Measures have included resurfacing of cycleways, covered cycle parking at Park & Ride sites and rail stations and doorstep personalised travel planning.
- **Local Developer contributions**
  £25.5M of Section 106 contributions collected from developers for the two years 2011/12 and 2012/13, towards infrastructure requirements for new developments.

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, through the emerging Local Plans, including at Cambourne, Bourn Airfield, Wyton, Alconbury and Waterbeach, and at existing sites such as Northstowe and on the edges of Cambridge, as shown in Figure 1.2.

The development strategy for Cambridgeshire 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.

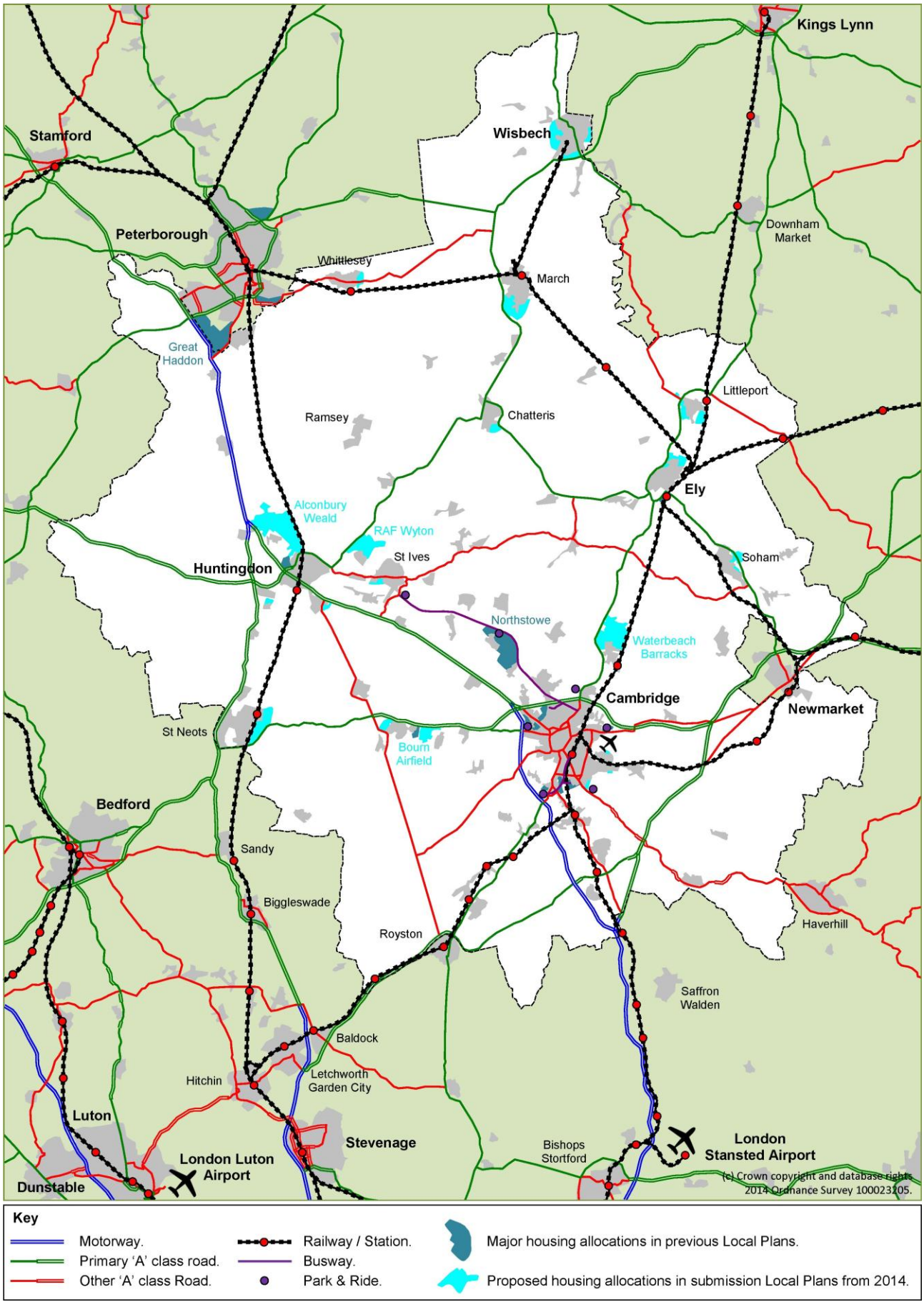
While the development strategy has been developed to reduce the need to travel, there will still be pressures on the transport network and the environment, including the risks of increased congestion, decreasing air quality and increased levels of carbon dioxide emissions. At the same time, many rural 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, improving accessibility and helping people to live independent lives, 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 dioxide emissions come from the transport sector. In Cambridgeshire in 2007, some 32% of the carbon footprint came from transport. Therefore, reducing carbon dioxide 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 dioxide emissions.

Addressing these issues was particularly challenging in the first three years of this plan, as funding from core sources declined and with the absence of certainty with regard to long term funding of transport on an ongoing basis. Local government continues to face enormous budgetary challenges, with diminishing core resources and increasing pressure on key services. In a strongly growing county such as Cambridgeshire, these pressures are acute.

Figure 1.2. Growth Areas In Cambridgeshire



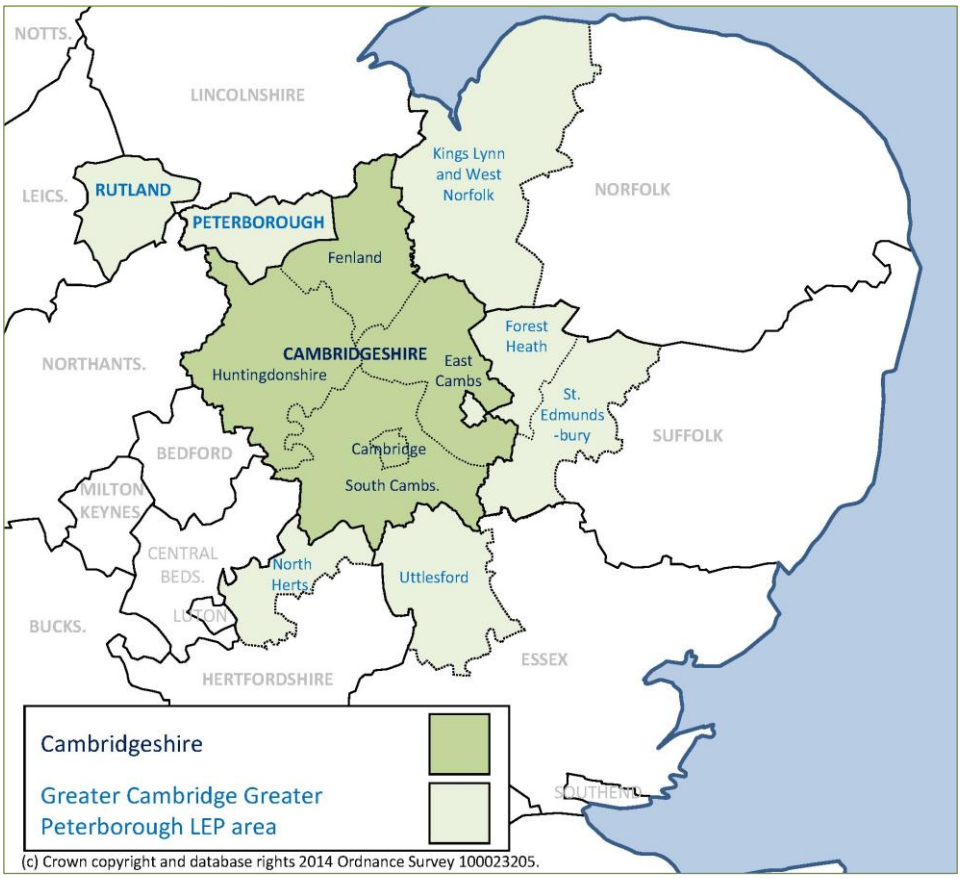
However, with opportunities such as City Deal and Growth Deal, we are well placed and should be able to positively engage with planned growth agenda and with the wider transport agenda. We still need to retain our focus on doing more with fewer resources to address the problems we face. We will need to work more closely with partners in both the public and private sector to make the most of the opportunities and funding available.

Greater Cambridgeshire Greater Peterborough Enterprise Partnership (GCGPEP)

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 agreed that the proposed Greater Cambridgeshire Greater Peterborough Enterprise Partnership should move forward and establish its Partnership Board.

The GCGPEP is now well-established and focused on helping to drive forward sustainable economic growth with local business, education providers, the third sector and the public sector working together. The area covered by the LEP currently has a population of 1.3 million people, which is estimated to grow to 1.5 million by 2031. The area boasts 700,000 jobs, 60,000 enterprises and generates £30 billion per annum.

Figure 1.3. Cambridgeshire and the wider GCGPEP area



In April 2014, the GCGPEP's Strategic Economic Plan was submitted to Government, and is vying for a share of the Local Growth Fund via the Growth Deal process. The Local Growth Fund will inject at least £2 billion of funding per year into economic growth related projects across England over the next six years. In total GCGPEP has bid for £119 million of funding for 2015/16, with an overall funding bid of around £500 million over the next six years. As a result of the investment, the Plan would support the delivery of 70,000 new jobs and 50,000 new homes, leading to a £2.8 billion uplift in GVA across the LEP area. The Strategic Economic Plan forms the basis by which individual Growth Deals will be negotiated by LEPs with Government to determine future funding levels from the Local Growth Fund.

Aims and Objectives

The Council's Priorities are set out below. They reflect the most important things we will do as a Council.

- Supporting and protecting people when they need it most
- Helping people to live independent and healthy lives in their communities
- Developing our local economy for the benefit of all

The LTP will contribute towards the Council's Priorities while also focusing on five LTP Objectives which are set out below. 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

Figure 1.4. Council Priorities and LTP Objectives

LTP Challenge	LTP Objectives*				
	1	2	3	4	5
Supporting and protecting people when they need it most	✓	✓✓			
Helping people to live independent and healthy lives in their communities	✓✓	✓✓	✓✓		✓
Developing our local economy for the benefit of all			✓✓	✓✓	✓

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

The objectives of the LTP will be kept under review to reflect the priorities of the Council, its partners and the community. This will allow the LTP to continue to contribute towards the wider objectives of the Council and help to improve the quality of life of Cambridgeshire residents.

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 Assets Count will lead the way.

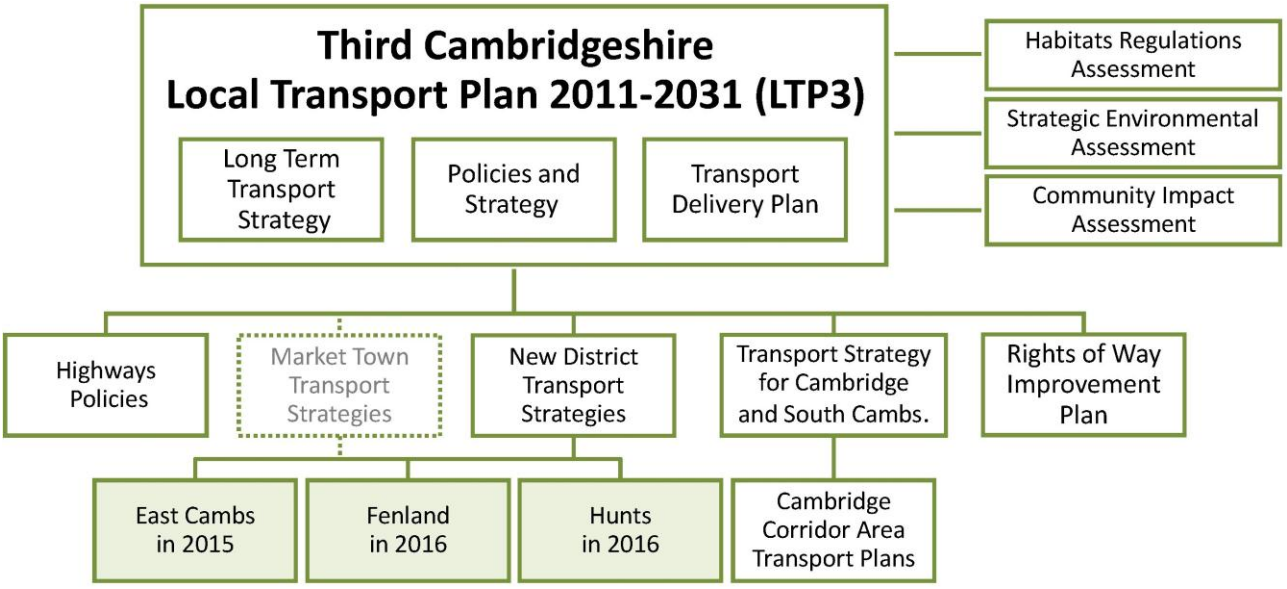
The strategy

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 and improving air quality. 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. 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 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 Transport Delivery Plan, which sets out our overall programme for transport and which will be updated annually prior to the start of each financial year. The key documents that form part of the LTP are shown in Figure 1.5.

Figure 1.5. Local Transport Plan Documents



Links with other Policies and Guidance

The framework of transport strategy documents that sit below the LTP, and that cover themes and areas in detail are shown in Figure 1.6 and Figure 1.7. New strategies will be developed for East Cambridgeshire, Fenland and Huntingdonshire, and the nine current Market Town Strategies will be incorporated into them.

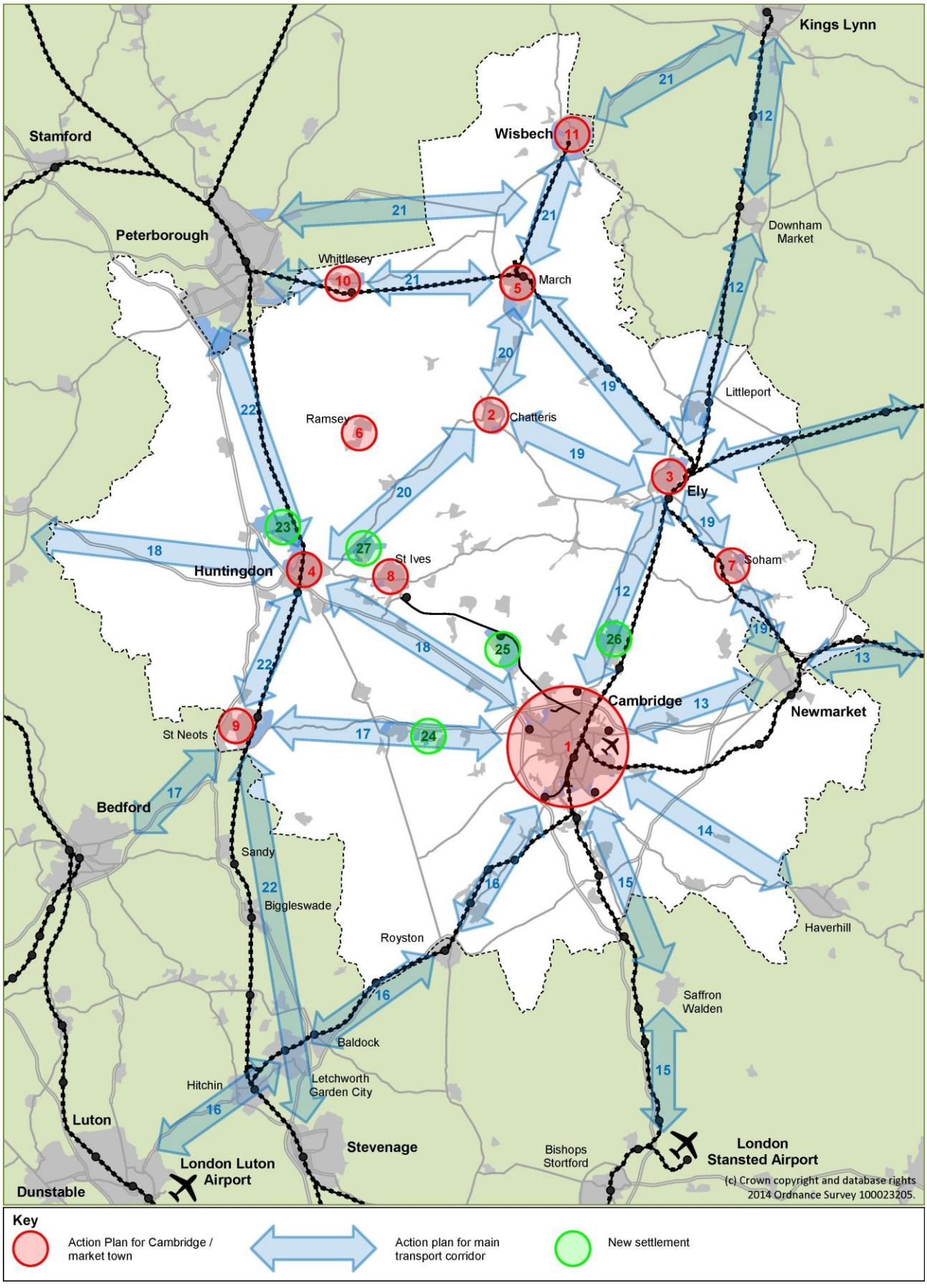
Why a refreshed LTP?

LTP3 was developed in line with government guidance and the requirements of the Local Transport Act 2008 which states that all local transport authorities had to have a new plan in place by 31st March 2011.

Figure 1.6. LTP documents and their links to wider policies, strategies and plans

Strategy		Status
Area strategies		
Transport Strategy for Cambridge and South Cambridgeshire		**Adopted March 2014**
Action Plans	Cambridge **(1)**	
	Littleport, Ely & Waterbeach to Cambridge corridor **(12)**, including Waterbeach New Town **(26)**	
	Newmarket to Cambridge corridor **(13)**	
	Haverhill & Saffron Walden to Cambridge (also includes consideration of Royston to Newmarket) **(14 & 15)**	
	Royston to Cambridge corridor **(16)**	
	St Neots to Cambridge corridor **(17)** including Bourn Airfield **(24)**	
	Huntingdon and St Ives to Cambridge corridor **(18)**, including Alconbury Weald **(23)**, Wyton Airfield **(27)** and Northstowe **(25)**	
Local improvements programmes		Reviewed annually
Transport Strategy for East Cambridgeshire (TSEC)		**To be adopted in 2015**
Action Plans	Ely Market Town **(3)**	Review as part of TSEC
	Soham **(7)**	Develop as part of TSEC
	Newmarket to Ely, Chatteris and March corridor **(19)**	Develop as part of TSEC / TSF
Local improvements programmes		Reviewed annually
Transport Strategy for Fenland (TSF)		**To be adopted in 2016**
Action Plans	Chatteris Market Town **(2)**	Review as part of TSF
	March Market Town **(5)**	Review as part of TSF
	Whittlesey Market Town **(10)**	Review as part of TSF
	Wisbech Market Town **(11)**	Review for adoption in 2014
	Huntingdon and St Ives to Chatteris and March corridor **(20)**	Develop as part of TSF / TSH
	March & Wisbech to Whittlesey & Peterborough corridor **(21)**	Develop as part of TSF
	Newmarket to Ely, Chatteris and March corridor **(19)**	Develop as part of TSEC / TSF
Local improvements programmes		Reviewed annually
Transport Strategy for Huntingdonshire (TSH)		**To be adopted in 2016**
Action Plans	Huntingdon and Godmanchester Market Town **(4)**	Review for adoption in 2014
	Ramsey Market Town **(6)**	Review as part of TSH
	St Ives Market Town **(8)**	Review as part of TSH
	St Neots Market Town **(9)**	Review as part of TSH
	Huntingdon and St Ives to Chatteris and March corridor **(20)**	Develop as part of TSF / TSH
	St Neots to Huntingdon and Peterborough corridor **(22)**	Develop as part of TSH
Local improvements programmes		Reviewed annually
Thematic strategies covering the whole County		
Highway policies (including parking policy, speed limit policy and street lighting policy)		Updated in April 2011
Heavy Commercial Vehicles strategy		Adopted January 2012
Cambridgeshire Future Transport programme		Ongoing
Cycle strategy		To be developed 2014/15
Rail Strategy		To be developed 2014/15
Rights of Way Improvements Plan		To be reviewed by March 2016

Figure 1.7. Coverage of Action Plans covering Cambridge, the market towns and the main transport corridors (including major new settlements)



This refreshed Plan provides the opportunity to review progress made to date, take account the views of the public and stakeholders, incorporate major new strategies (the Long Term Transport Strategy and the Transport Strategy for Cambridge and South Cambridgeshire) and reflect the current funding climate. We can then ensure the Plan is up to date and reflects the needs of people who live, work and travel in Cambridgeshire.

Figure 1.8. Adoption and review of the Third Cambridgeshire Local Transport Plan

Document	Status
LTP: Long Term Transport Strategy	Adopted November 2014.
LTP: Policies and Strategy (this document)	Adopted March 2011. First refresh adopted November 2014.
LTP: Transport Delivery Plan	Implementation Plan adopted March 2011. Transport Delivery Plan to incorporate Implementation Plan and fulfil role from April 2015.

As noted earlier, 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.

2. Objectives, Indicators and Targets

This chapter sets out the overarching objectives of the Local Transport Plan (LTP) and demonstrates how our transport policies and plans will contribute towards the 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 Priorities, set out below. These priorities have been developed with the current financial climate in mind and reflect what communities want and need from the Council.

- **Supporting and protecting people when they need it most.**
  We will provide a safety net for vulnerable people until they can take back control of their own lives. Our support will be targeted to those most in need and where we do provide support, it will be to help people towards independence.
- **Helping people to live independent and healthy lives in their communities.**
  We want people to be in control of their own lives, as individuals and as part of their community.
- **Developing our local economy for the benefit of all.**
  We will help people to access the support they need to get the jobs being created in Cambridgeshire – supporting children and young people to stay in learning and providing a range of options for adults. Across the county, we'll ensure that people can travel safely and are able to access economic opportunities.

The Milton Park & Ride site

These Priorities reflect the most important activities of the Council and will help to inform future decision making and spending plans. The LTP will contribute towards delivering these priorities. In addition, five specific LTP objectives have been set, providing a focus for our strategy and programme. These have been based on the views of people across Cambridgeshire and will ensure that our work meets the needs of our communities.

Our LTP Objectives are:

LTP Objective 1
Enabling people to thrive, achieve their potential and improve their quality of life.

LTP Objective 2
Supporting and protecting vulnerable people.

LTP Objective 3
Managing and delivering the growth and development of sustainable communities.

LTP Objective 4
Promoting improved skill levels and economic prosperity across the county, helping people into jobs and encouraging enterprise.

LTP 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.

We will review our objectives to reflect emerging national and local policy if appropriate.

Huntingdon town centre and the West of Town Centre link road, (bottom centre, above the East Coast Main Line railway) which was under construction when this photo was taken. The A14 Trunk Road crosses the East Coast Main Line and Brampton Road at Huntingdon Station (right centre). The River Great Ouse is in flood as far as St Ives and beyond (top left).

How LTP3 contributes towards achievement of our objectives

To achieve the LTP 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. Summary of how LTP Objectives will be met

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 district based transport strategies for East Cambridgeshire, Fenland and Huntingdonshire • 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 with investment 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 district-based transport strategies for East Cambridgeshire, Huntingdonshire and Fenland • Implement the district based strategies and the Transport Strategy for Cambridge and South Cambridgeshire (TSCSC) • 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 measures to manage demand where traffic congestion hinders economic prosperity
5. Meeting the challenges of climate change and enhancing the natural environment.	• Consider new, and expand existing, 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 transport programme, and will report our progress each year.

Performance management and Local Transport Plan indicators

Monitoring the effectiveness of our strategy and is a key part of this LTP. We want to ensure that the delivery of the Plan is as effective as possible and is providing value for money. We have therefore developed a monitoring framework to assess and review progress. This rest of this chapter sets out the indicators and targets we will use to monitor progress towards delivering our strategy and achieving our objectives. The indicators we have chosen reflect the transport 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.

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 Transport Delivery Plan. Figure 2.3 details two indicators that have been removed from the plan since it was first adopted.

Figure 2.2. Cambridgeshire LTP3 indicators

Area	Ref.	Indicator	Target set (Yes No)
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 06a	A. Percentage of buses running on time	✓
		B. Excess waiting time for frequent bus services	✓
	LTP 07	Cycling trips index	✓
	LTP 09	Traffic travelling across the Cambridge radial cordon	✓
	LTP 10	Congestion – average journey time per mile during the morning peak	✓
Environment	LTP 11	Emissions of Greenhouse gases from road transport	✓
	LTP 12	A. Trends in NO_2 concentrations in the Cambridge Air Quality Management Area, expressed as a 5 year running annual mean	×
		B: Trends in PM_{10} concentrations in Air Quality Management Areas in Cambridgeshire, expressed as a 5 year running annual mean.	×
Road and footway condition	LTP 14	Principal roads where maintenance should be considered	✓
	LTP 15	Non-principal classified roads where maintenance should be considered	✓

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

Figure 2.3. Indicators removed from the Plan since it was first adopted

Area	Ref.	Indicator	Date removed
Trends in travel	LTP 08	Mode of travel to school (see below)	June 2014
Environment	LTP 13	A. Indicator LTP 13A: Reduction in emissions of NO_2 from buses in the Cambridge core area (see below)	June 2014
		B. Reduction in emissions of PM_{10} from buses in the Cambridge core area (see below)	June 2014

Performance management

The Council has comprehensive systems in place for monitoring and managing performance, projects and finance. Thorough monitoring of targets allows the Council and its partners to take action when targets are not on track, thereby delivering improved outcomes and demonstrating an effective performance management system. Furthermore, this robust system for reviewing LTP targets ensures they are (and will remain) realistic and challenging. The Department for Transport will not formally assess this LTP or require submission of a formal monitoring report. It is therefore up to the Council to decide how best to report progress in delivering our strategy and meeting our targets. To ensure the LTP is accountable to the local community we will report progress on an annual basis via our website.

The Busway at Histon

Targets

Each indicator will be monitored over the lifetime of the LTP, unless it is removed or replaced in the indicator set as a result of changes to national or local policy or monitoring practice. For a number of indicators, detailed targets have been set. Figure 2.2 notes which indicators have associated targets. For others, assessment of progress may be through the assessment of trends rather than of absolute numbers. An example of this is air quality, where absolute data on pollutant concentrations will not give a robust year-on-year picture of the position, as there can be marked variations due to weather conditions. However, in cases such as this, looking at longer term trends can allow progress to be assessed.

All indicators cover the whole of the county unless otherwise stated.
Where targets have been set, they are based on a realistic assessment of what we can achieve given the current position and past trends, funding we have available and the planned impact of our Transport Delivery Plan. They aim to be realistic yet challenging. However, the current funding climate does bring a degree of uncertainty as to how much progress will be possible in some areas; indicators where this may be an issue are highlighted in the supporting text.

Road safety indicators

On 11th May 2011 the Government published a Strategic Framework for Road Safety, which included a forecast of a 40% reduction nationally in deaths and serious injuries by 2020, from a 2005-2009 average baseline.

On 27th September 2011 the County Council's Cabinet approved the council's Road Safety Strategy, which includes a commitment:

"*To continue the downward trend in road casualties in line with performance targets (By 2013/14 no more than 308 deaths and serious injuries,* (and no more than) *21.2 [3 year average] child deaths or serious injuries)*".

Additionally this LTP includes a target to reduce cyclist and pedestrian killed and seriously injured casualties, and monitors slight casualties.

Figure 2.4. Indicator LTP 01: People killed or seriously injured in road traffic accidents in Cambridgeshire

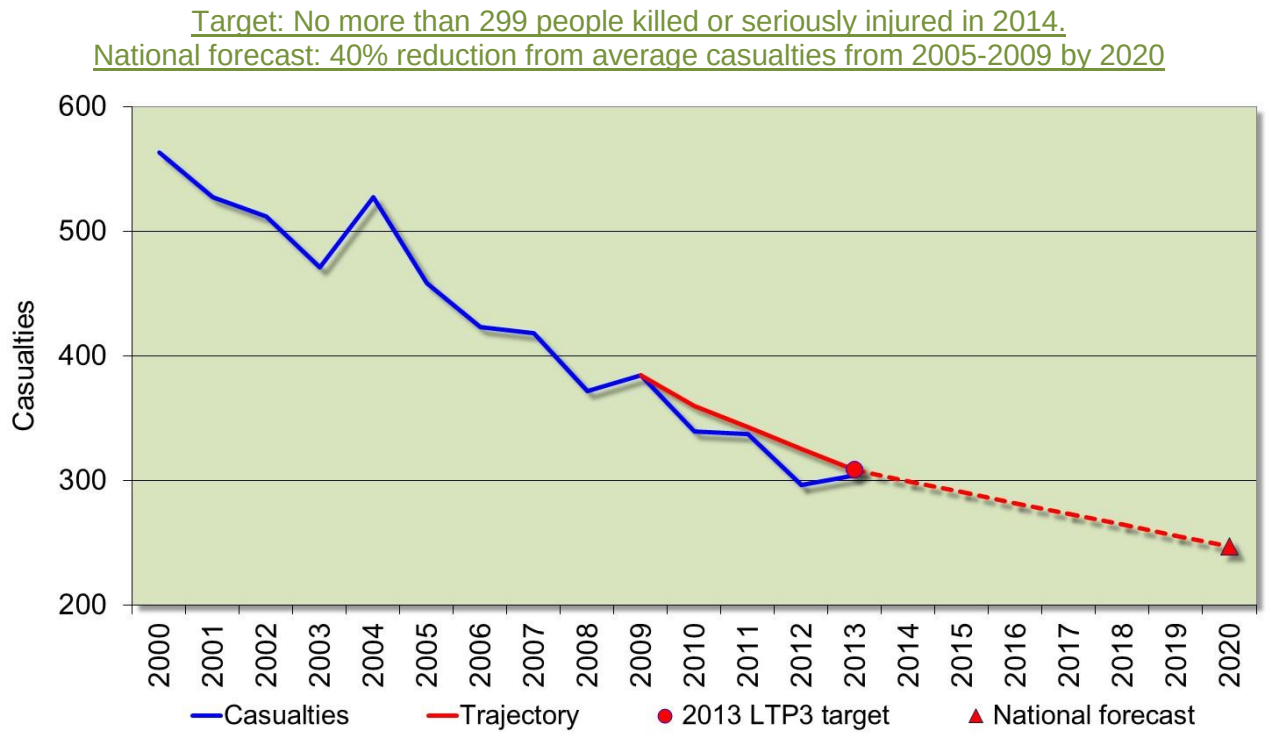


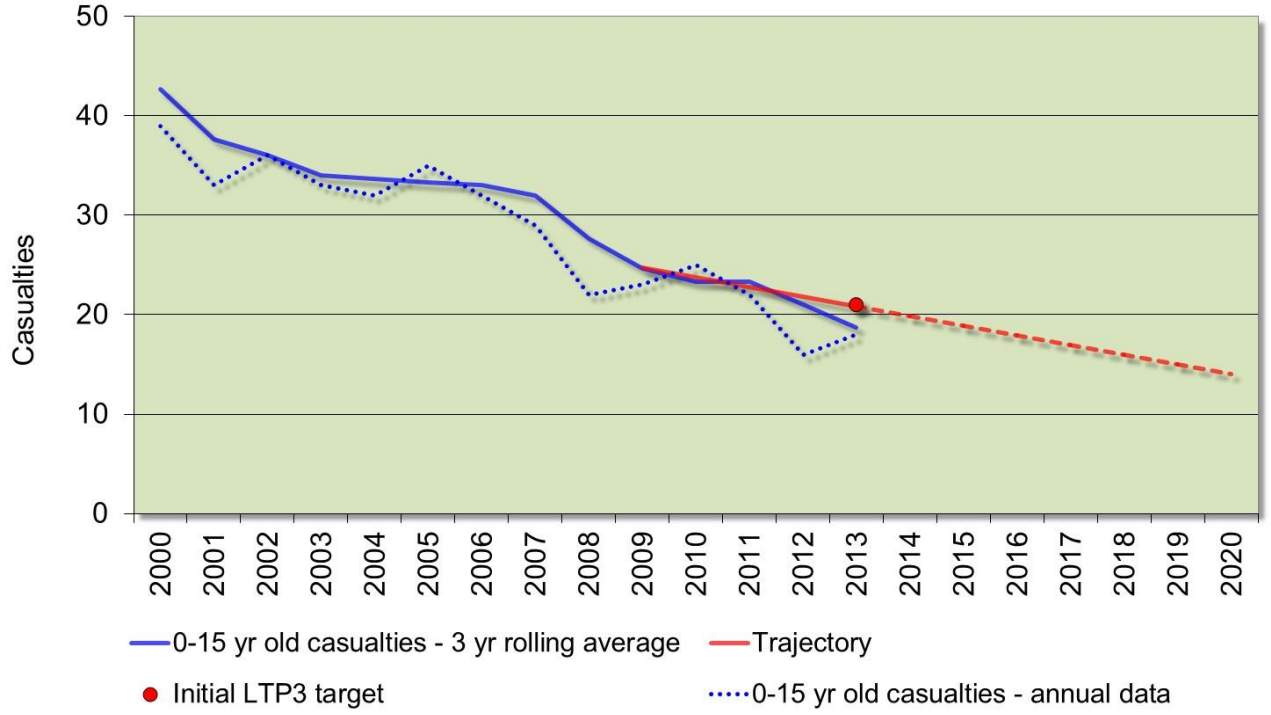
Figure 2.4 shows that casualties killed and seriously injured on Cambridgeshire's roads are continuing to drop and that we are currently on track to meet the government's forecast 2020 reduction in casualties.

Figure 2.5 sets out our progress in reducing the number of children killed or seriously injured in road traffic accidents. We have met our 2013 target.

Cambridgeshire has high levels of involvement of cyclists in accidents, particularly in Cambridge, where 56% of injury accidents in 2009 involved cyclists. Positively, casualty rates in Cambridgeshire for pedestrians and cyclists are generally better than the average for Great Britain, but high levels of cycling lead to more incidents than in many other areas. Figure 2.6 shows progress in reducing the number of pedestrian and cycle casualties involved in accidents.

Figure 2.5. Indicator LTP 02: Children killed or seriously injured in road traffic accidents in Cambridgeshire

Target: No more than 21 children killed or seriously injured per year on average in 2011, 2012 and 2013.



As the numbers of casualties covered by this indicator is small, targets are framed as a three year average rather than for a single year, to reduce the chances of unusually high or low figures for individual years skewing the assessment.

Figure 2.6. Indicator LTP 03: Pedestrians and cyclists killed or seriously injured in road traffic accidents

Target: No more than 86.6 pedestrians and cyclists killed or seriously injured per year on average in 2012, 2013 and 2014.

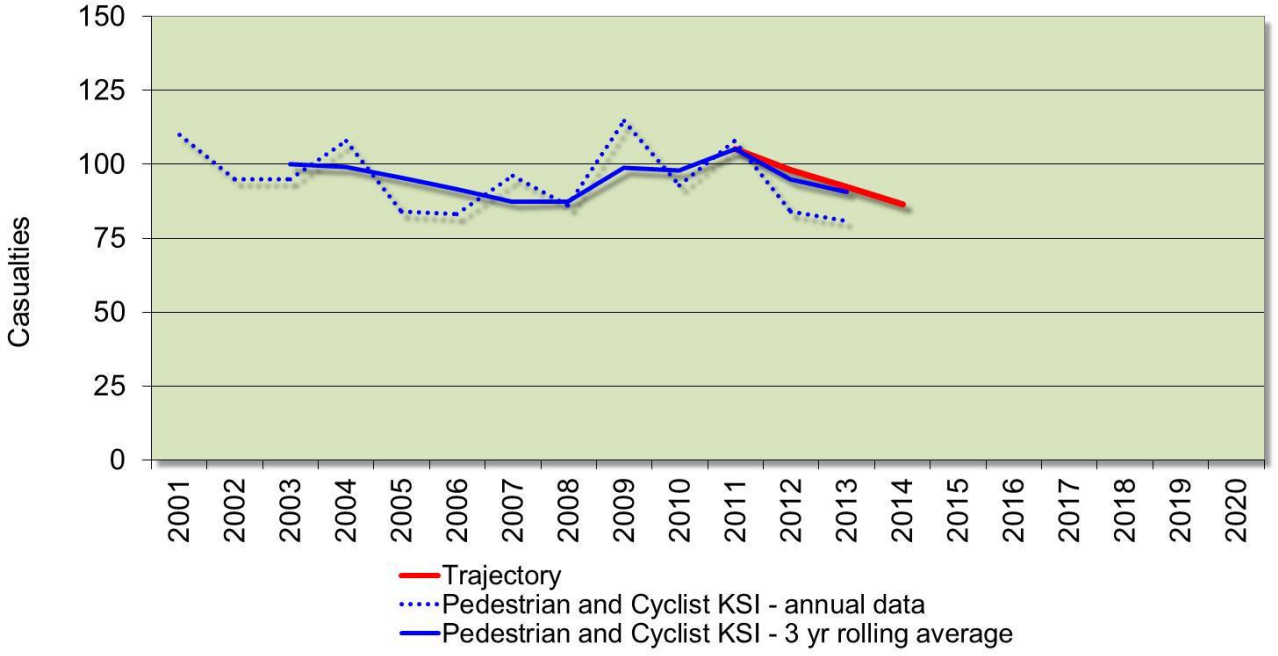
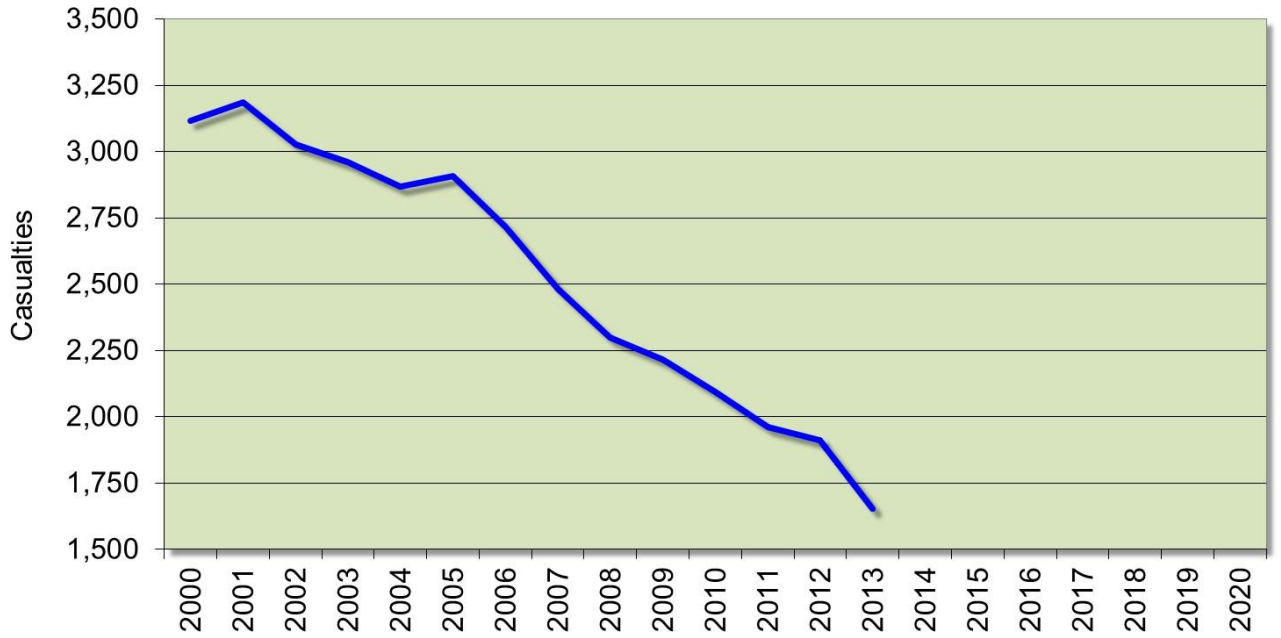


Figure 2.7. Indicator LTP 04: Road accident casualties slightly injured



The number of slightly injured casualties in road accidents is included as an LTP indicator but does not have a specific target for reduction set against it. The number of slight casualties is often under-reported by those who receive them, in large part due to the fact that the injuries involved are by their very definition, slight. Nonetheless, this indicator provides useful context to the other safety indicators, and with them, gives the overall context of reported road accident casualties in the County.

Key actions to meet Road Safety targets

The Council will continue to deliver safety schemes in line with our strategy. We will work closely with partners to promote road safety and improve education and training. This will include new and improved pedestrian crossings, speed reduction measures and training initiatives for both children and adults.

The Council will progress the road safety education programme and continue to implement safety schemes, including Bikeability cycle training, Walk to School Week and cycle parking at schools.

Principal risks to the achievement of Road Safety targets and how they will be managed

Risks to the achievement of this target include higher than forecast levels of traffic growth; and delays or failure to deliver safety improvements due to lack of funding. To manage these risks we will continue to work closely with partners to ensure a focus on the most cost effective measures and initiatives, and on timely delivery.

Delays to the implementation of local safety schemes and education programmes could jeopardise the achievement of this target. Regular communication with partner agencies and thorough project management will help to minimise these risks.

Trends in travel indicators

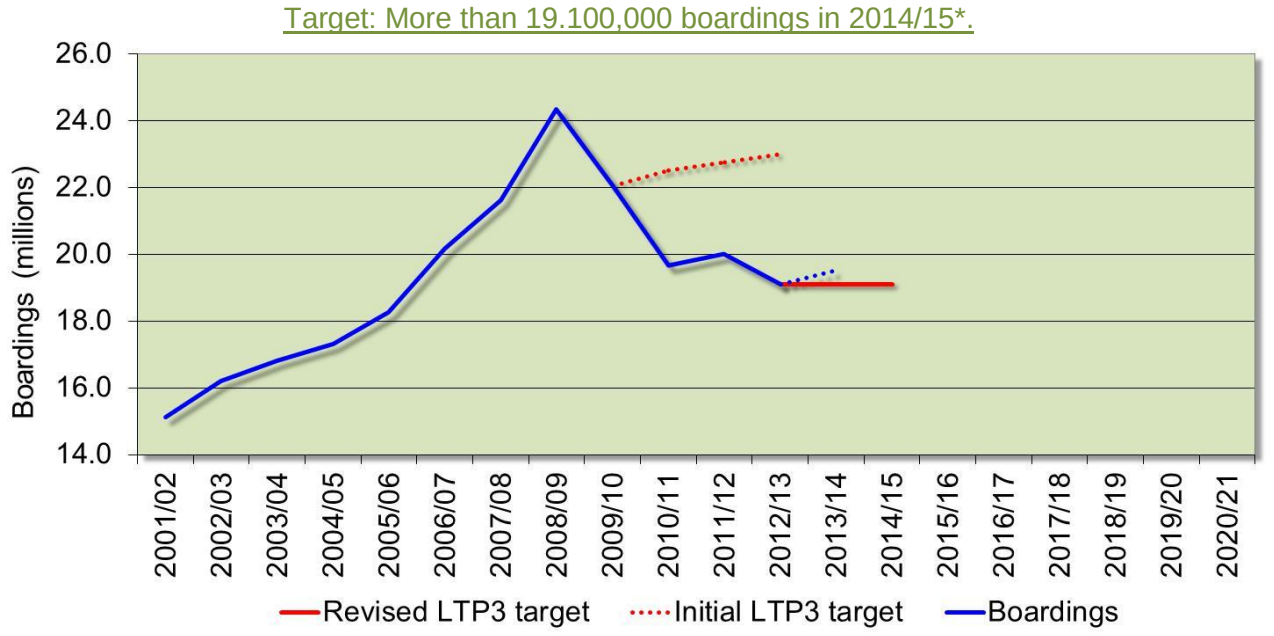
Bus patronage and punctuality

Bus patronage in Cambridgeshire grew strongly throughout most of the LTP1 and LTP2 periods, as illustrated in Figure 2.8. Strong partnership work between the local authorities and the bus companies to improve the infrastructure and services was critical to this.

The challenging financial climate we faced by local government has led to cuts to bus services that were previously subsidised. The Cambridgeshire Future Transport programme is addressing the issues this has brought across the county, and there are frequently new solutions or alternative provision that has been put in place that will not register in this indicator.

Nonetheless the drop in bus patronage from the high point seen in 2008/09 is concerning. Over the period of this plan, we will now look to consolidate patronage levels, and through the investment in infrastructure by the public sector and in services by the private sector (particularly in the Cambridge area with City Deal funding), see patronage growing again. This is a challenging within the context of falling ridership nationally and the introduction of Park & Ride car park charges (again due to the challenging financial climate).

Figure 2.8. Indicator LTP 05: Bus trips originating in Cambridgeshire



*Provisional figure for Boardings shown for 2013/14.

There are two indicators for bus service punctuality that are measured to nationally set criteria. The first, LTP 06A, shown in Figure 2.9, is the percentage of services that arrive on time. The second, LTP 06B, shown in Figure 2.10, relates to frequent services (defined as services with a 10 minute frequency or less), and measures the excess time that passengers have to wait to board such services[3]. Performance in 2012/13 against these indicators was poor, in large part due to significant road works in Cambridge city centre at various points in the year, including on East Road and at the Catholic Church junction.

[3] For a 10 minute frequency, the average amount of time that someone arriving at a stop at random should have to wait is 5 minutes, and the excess waiting time is the amount by which the average waiting time is more than 5 minutes.

Figure 2.9. Indicator LTP 06A: Percentage of buses running on time

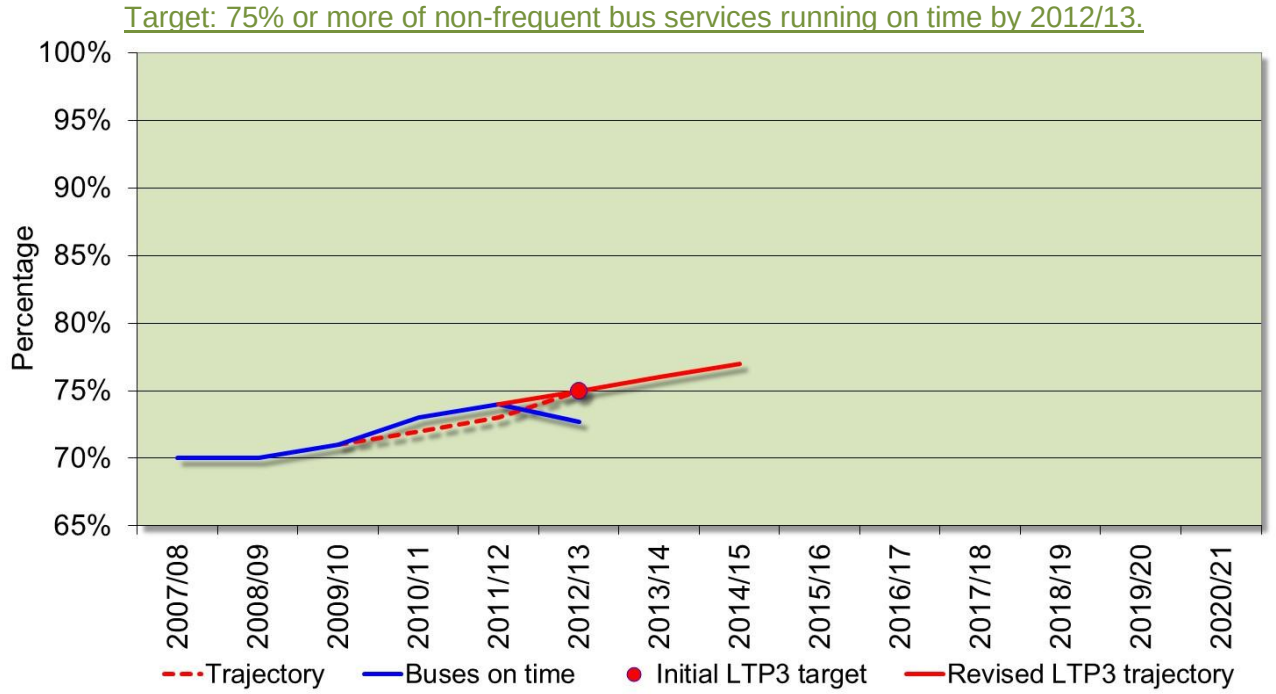
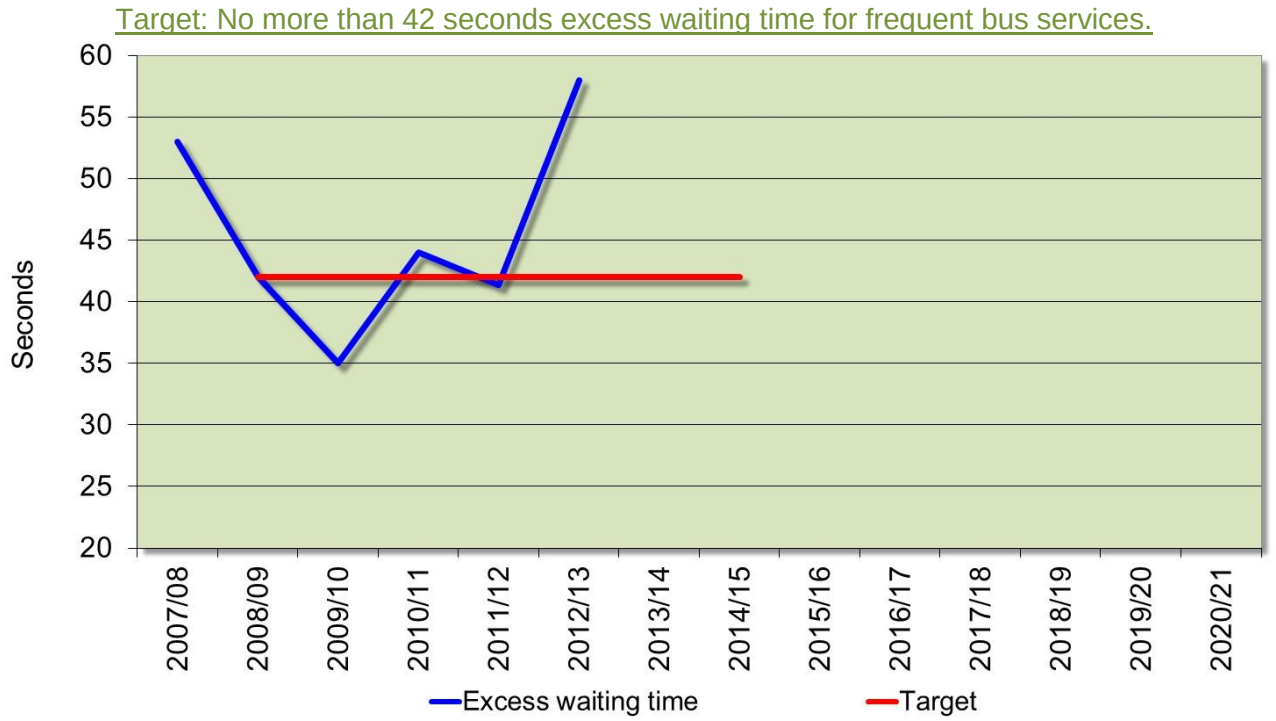


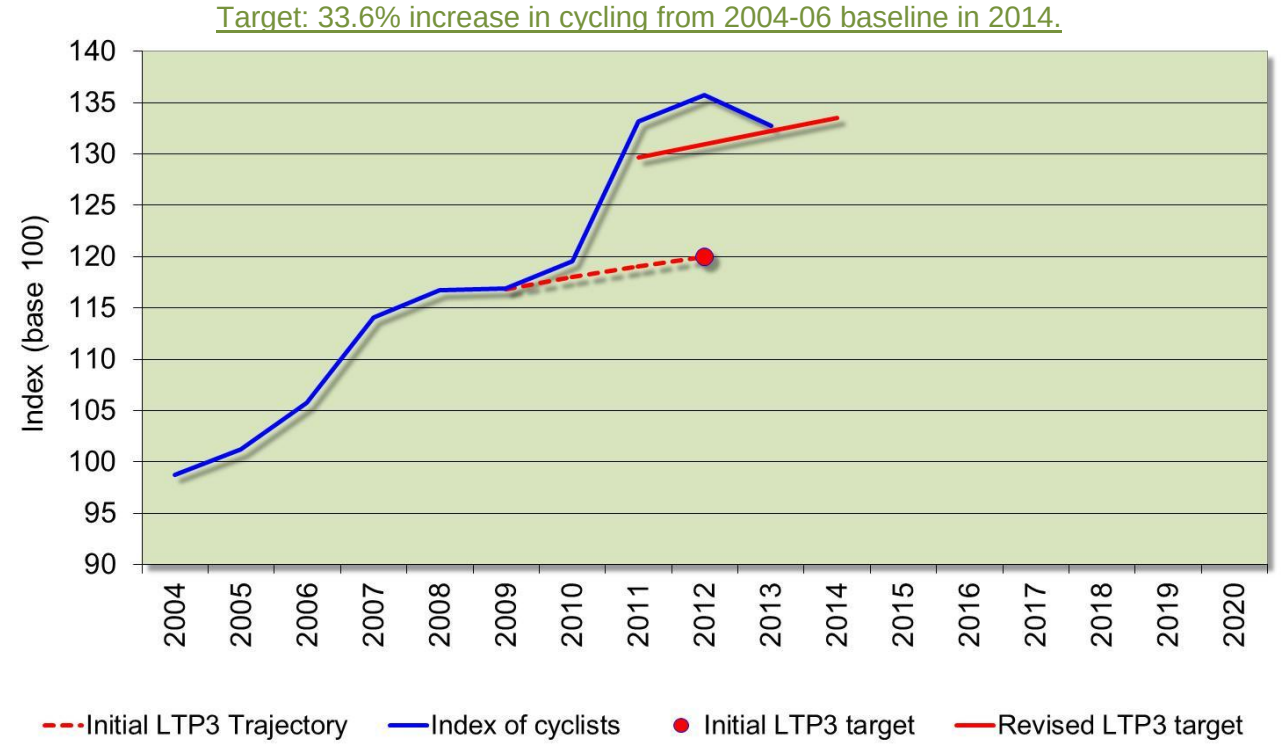
Figure 2.10. Indicator LTP 06B: Excess waiting time for frequent bus services



Cycling trips

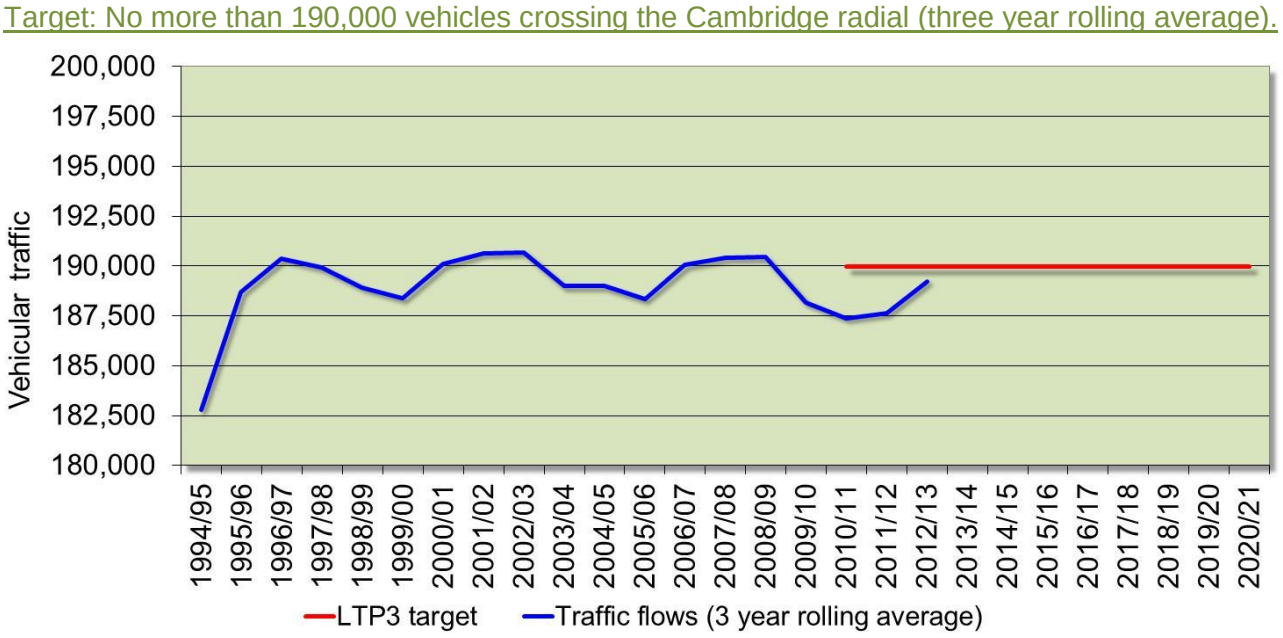
Figure 2.11 shows the increase in cycling rips that has been seen since 2004/05, which reflects our commitment to improving on road and off road facilities for cyclists and our associated programmes of education, training and promotion. In 2009/10 we have delivered a number of new cycle routes in and around the Cambridge area with funding received from the Cycle Demonstration Town Fund, and their usage contributed towards the achievement of our initial target.

Figure 2.11. Indicator LTP 07: Index of cycle trips in Cambridgeshire (base = 100)



Traffic in Cambridgeshire

Figure 2.12. Indicator LTP 09: Daily vehicular traffic crossing the Cambridge radial cordon[4]



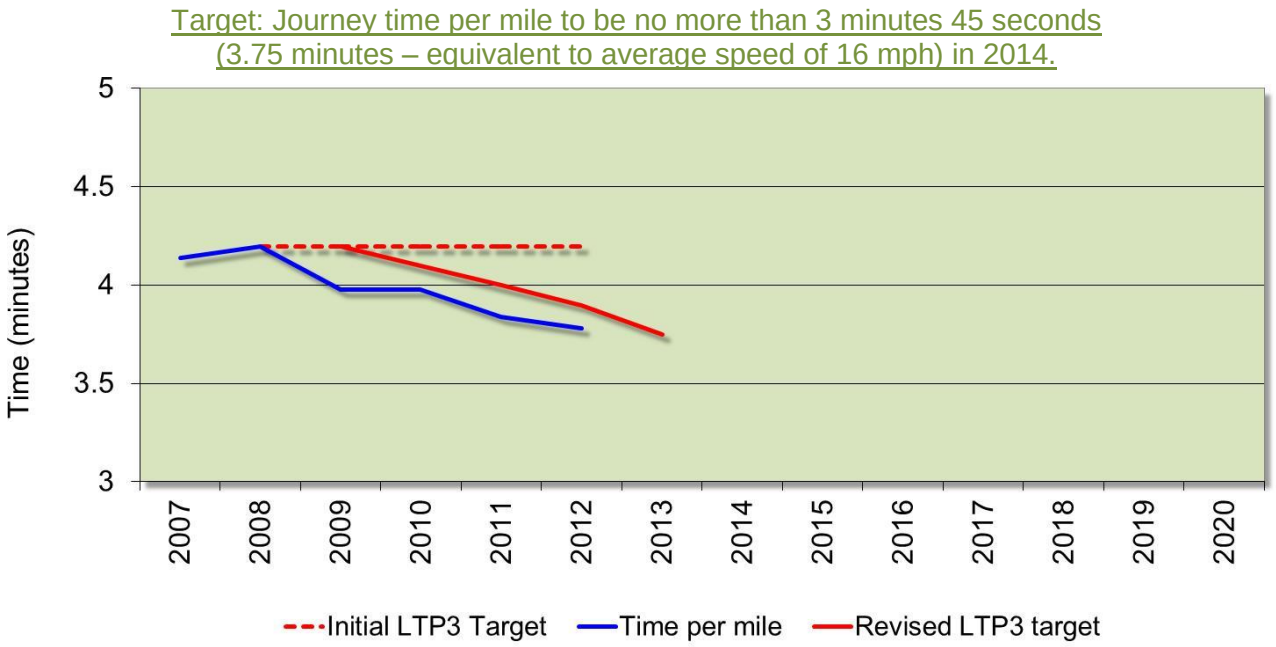
For the past 17 years, traffic flows into Cambridge have remained relatively stable as shown in Figure 2.12, with growth in travel into and out of the city accommodated by rail,

[4] Changes to the cordon points were made in 2004/05. Data was collected at both sets of cordon points in 2004/05 and 2005/06. Data in Figure 2.12 for 1989/90 – 2003/04 (shown as a dashed blue line) has been normalised to be consistent with the new cordon points, and is used to illustrate the trend in traffic levels.

bus and cycle trips. The Transport Strategy for Cambridge and South Cambridgeshire aims to keep Cambridge traffic at current levels while accommodating major growth in the city. A target for LTP 09 of no more than 190,000 vehicles a day crossing the cordon has therefore been set.

Figure 2.13 shows indicator LTP10, which measures average journey time per mile during the morning peak hour. The data to monitor this is received from GPS devices in vehicles travelling on the transport network, and is provided by government. The indicator assesses the average time to travel a mile on a sample of main routes in the county in the morning peak hour.

Figure 2.13. Indicator LTP 10: Average journey time per mile during the morning peak hour



Key actions to meet Trends in Travel targets

LTP 05 and LTP 06

The Transport Strategy for Cambridge and South Cambridgeshire includes major investment in demand management and bus priority measures, aimed at giving the bus a competitive advantage on all major corridors into the city, and when making orbital movements around Cambridge. The Long Term Transport Strategy similarly includes major investment in bus infrastructure to serve the Huntingdon and St Ives area, including major new development at Alconbury Weald and Wyton Airfield. Up to date accurate information and raising awareness are also important. Measures such as off bus ticketing in key locations will also enhance the effectiveness and attractiveness of the bus network.

LTP 07

Investment in new cycleways, providing more joined-up and coherent networks will help to meet this target. In addition, the continued provision of cycle training and promotional events will lead to increases in cycling.

LTP 09 and LTP 10

To meet these targets we will use our Intelligent Transport Systems and the Integrated Highways Management Centre to better manage traffic. We will continue to encourage the use of sustainable modes of transport and reduce reliance on the private car. For example, we will implement small-scale walking and cycling improvements in the market towns through our new district based transport strategies, work closely with bus operators to encourage increased use of public transport and implement the Transport Strategy for Cambridge and South Cambridgeshire. We will also continue to support car sharing schemes and the development of car clubs.

Principal risks to the achievement of Trends in Travel targets and how they will be managed

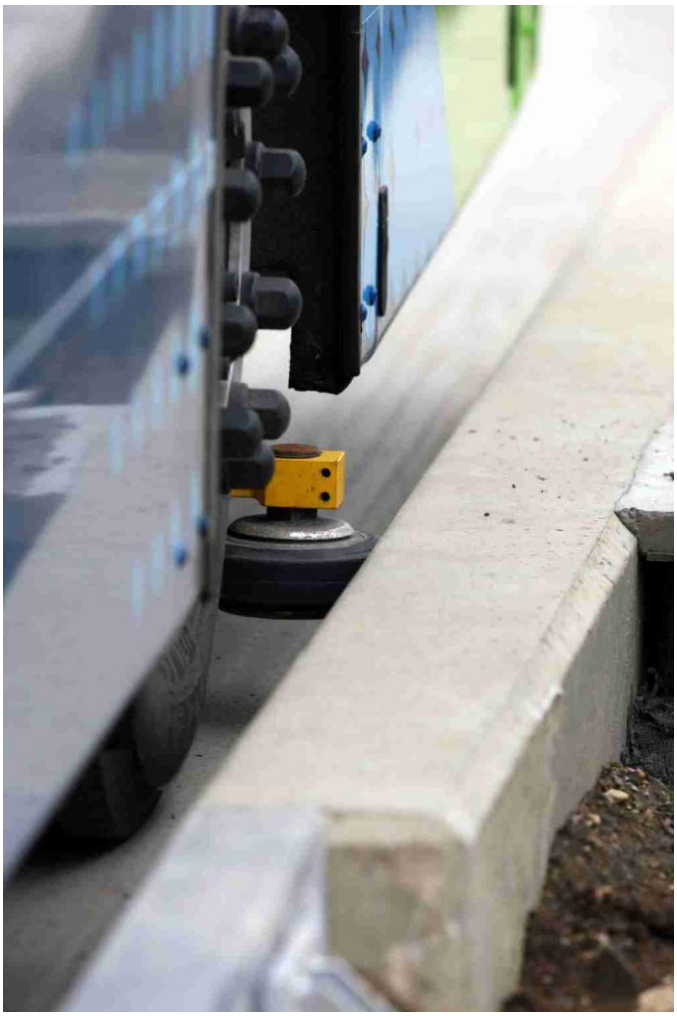
LTP 05 and LTP 06

A key risk to the achievement of LTP 05 is an insufficient level of reimbursement from Government to cover the demand for free travel under the concessionary fares scheme. As there is no other funding available to subsidise concessionary fares, insufficient funding could lead to the withdrawal of some bus services, and a reduction in bus patronage across the county.

Other risks for LTP 05 and LTP 06 include:

- Insufficient funding for / failure to implement bus priority measures and off-vehicle ticketing.
- Increase in costs of running infrastructure such as Park & Ride and the Busway, leading to increase in costs for passengers.
- Higher than anticipated traffic growth and increased congestion leading to increased unreliability of bus services.

Availability of funding from non-core sources such as from developers, or the Sustainable Transport Fund could reduce these risks.



Guide wheel on a Busway bus

LTP 07

The main risks to the achievement of this target include higher than forecast traffic growth, which can deter people from cycling; inclement weather can also put people off from making a journey by bicycle. We will manage these risks by working closely with partners to manage traffic growth and offer cycle training to encourage new or less confident cyclists to cycle more often.

LTP 09 and LTP 10

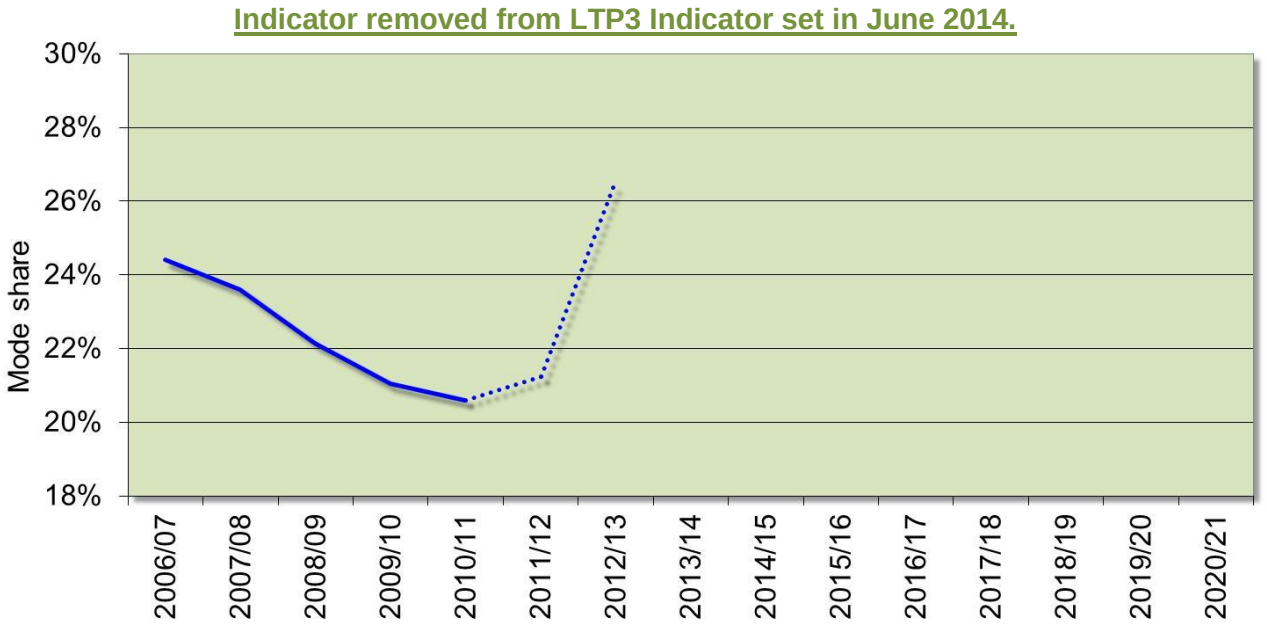
The principal risk to meeting these targets are:

- Additional traffic growth resulting from new homes planned in the area if sustainable alternatives are not provided, by developers or from sources such as City Deal / Growth Deal.
- The delay (or future postponement) of the A14 improvement scheme could lead to extra traffic on the local transport network.

Indicator removed from the LTP3 Indicator set: Trips to school by private car

The proportion of trips to school made by private car has dropped markedly in recent years, as shown in Figure 2.14. However, the requirement to ask travel questions on the school census is no longer mandatory and as a result, the data for this indicator is not as robust as it once was. There are also issues of relating to the coverage of academies by the school census that further lessens the value of this indicator. We do not believe the figures shown for 2012/13 are representative for these reasons, and as we have no reason to believe the robustness of the data will improve, will be ceasing to monitor this indicator in 2013/14.

Figure 2.14. Indicator LTP 08: Trips to school by private car



Environment Indicators

Climate Change

Indicator LTP 11 measures total carbon dioxide emissions from road transport in Cambridgeshire. Data (provided on a national basis for all Local Authority area) suggests that carbon emissions from road transport in the county have been on a downward trend since 2007 in Cambridgeshire, broadly in line with this target.

Figure 2.15. Indicator LTP 11: Carbon dioxide emissions in Cambridgeshire from road transport

Target: Carbon dioxide emissions from road transport to drop by 20.1% in 2020 compared to 2005 (equivalent to 34% drop from 1990).

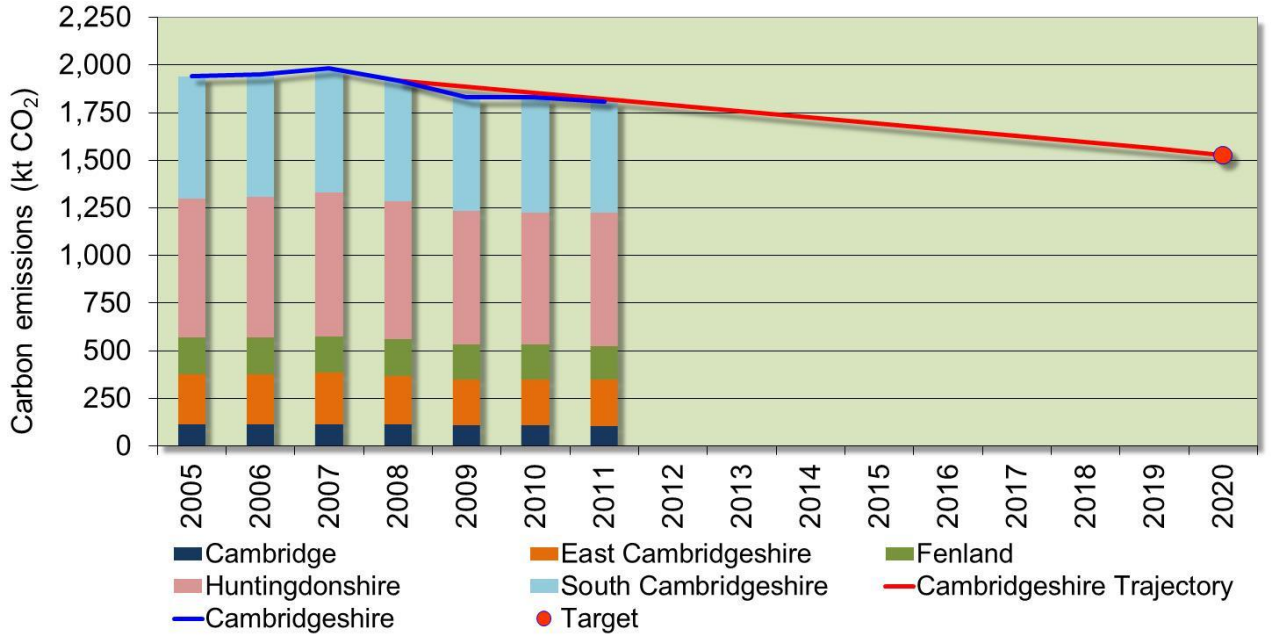
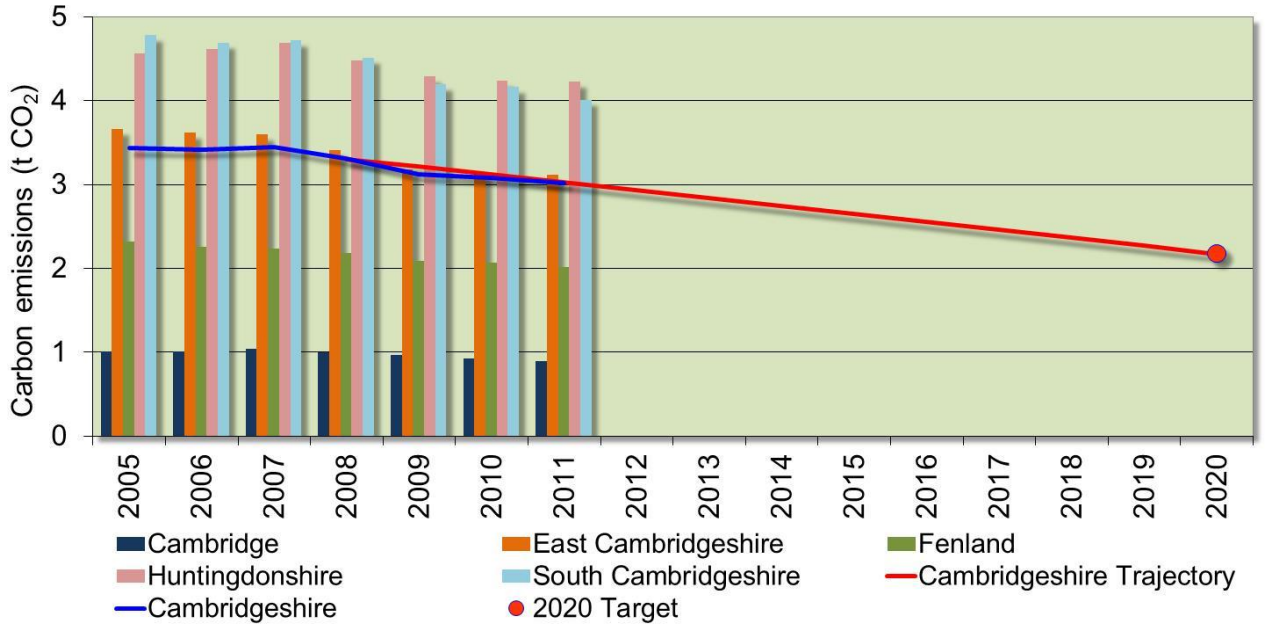


Figure 2.16. Per capita carbon dioxide emissions from road transport in Cambridgeshire



We have updated the climate change target in this refreshed LTP to be equivalent to a 34% drop from 1990 figures by 2020 (see Figure 2.15), in line with the legally binding carbon budgets that emerged from the Climate Change Act 2008 (see Figure 3.3). Given the growth in population that is planned for in Cambridgeshire, this equates to a 34.2% drop in transport CO_2 emissions per person between 2008 and 2020, as shown in Figure 2.16. For Cambridgeshire, the target is especially challenging in a period when the county is facing unprecedented housing and employment growth and associated increased demand for travel. We will review our targets if there any revisions to the national target, or changes in local circumstances.

Air Quality

There are seven Air Quality Management Areas (AQMAs) in Cambridgeshire where the air quality problems are primarily due to emissions from vehicles on the road network. Of these, all seven are related to concentrations of nitrogen oxides (NO_x) but one (A14 South Cambs.) is also related to concentrations of fine particles (PM_{10}).

Figure 2.17. Indicator LTP 12A: Trends in NO_2 concentrations in the Cambridge Air Quality Management Area, expressed as a 5 year running annual mean.

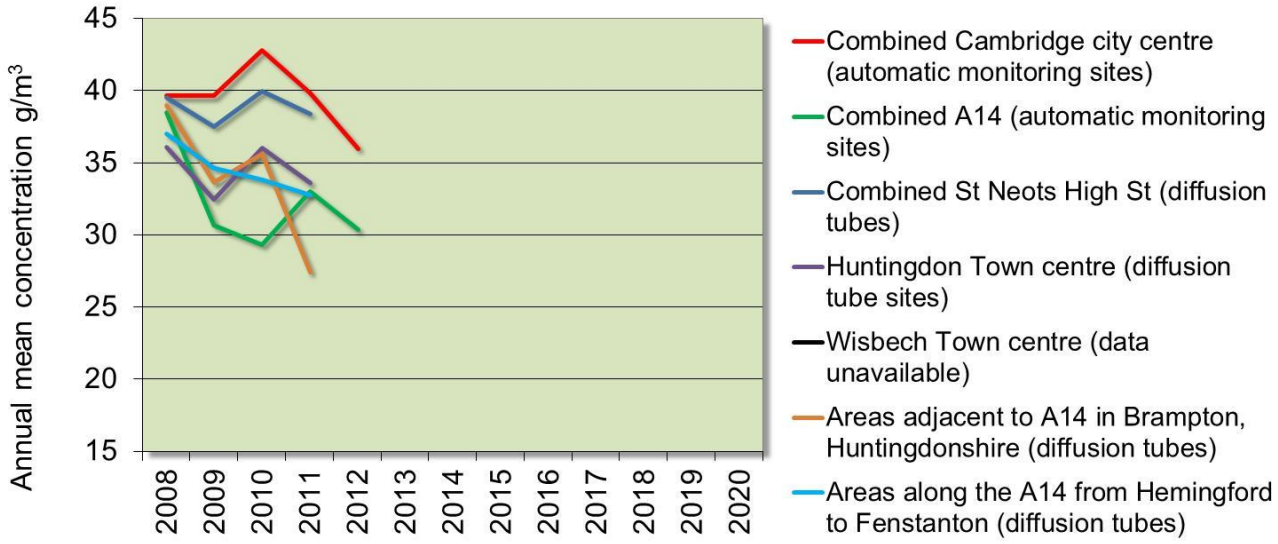
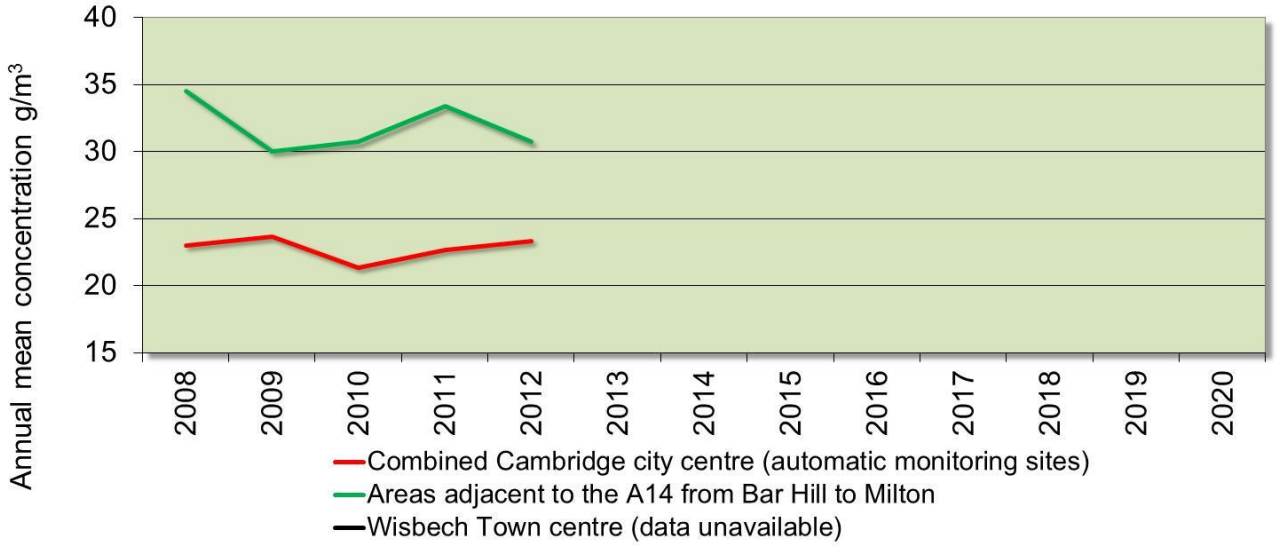


Figure 2.18. LTP 12B: Trends in PM_{10} concentrations in Air Quality Management Areas in Cambridgeshire, expressed as a 5 year running annual mean.



Indicator LTP 12 is a composite indicator measuring levels of these pollutants in the declared AQMAs across the county. LTP 12A (Figure 2.17) measures levels of NO_x and LTP 12B (Figure 2.18) measures levels of PM_{10}. In each case, the measured level of pollutants is expressed as a five year running average mean. This is because certain weather conditions can lead to particular air quality problems, even in scenarios where actual emissions have reduced. A rolling average irons out some of this natural variation, and allows a more robust assessment of longer term trends to be made.

Key actions to meet environment targets

To meet these targets we will continue to implement our programme of sustainable travel initiatives to encourage more people to walk, cycle or use public transport rather than the car. In addition we will investigate measures to manage demand in Cambridge in order to manage car use and congestion. We will continue with initiatives that reduce the need to travel including flexible working, personalised journey planning, car sharing and other smarter choices. Infrastructure investment in rail and bus travel will also contribute to managing car use.

Technology has an important role to play in meeting this target, and the efficiency of new vehicles is gradually being improved as a result of EU legislation. These general improvements to the vehicle fleet will help to reduce emissions but in Cambridgeshire we will also encourage use of cleaner and greener electric vehicles through the East of England's Plugged in Places bid for the EValu8 Project.

Further detail on the actions we will take to reduce carbon dioxide emissions are set out Chapter 4 of this document. This will be achieved by encouraging more people to use sustainable modes of travel (Challenge 3), reducing the need to travel (Challenge 7), working with bus operators to improve the emissions of the bus fleet (Challenge 7), and by managing demand for private car use (Challenge 1).

Key risks to meeting environment targets

The main risks to meeting these targets include:

- Higher than forecast traffic growth.
- Not enough people transferring to sustainable modes of transport.
- A limited take up of cleaner and greener vehicles.

Indicator removed from the LTP3 Indicator set: Reductions in emissions from buses in the Cambridge core area

Indicator LTP 13 measured calculated emissions of NO_x and PM_{10} from the bus fleet in the core area of Cambridge. Since 2008, all main operators have reduced calculated emissions. The current calculated emissions meet the proposed 2015 commitment for PM_{10} emissions; the calculated NO_x emissions have reduced by 43%, so this target should be met by 2015. We have therefore agreed with colleagues at Cambridge City Council that this indicator will be removed from LTP3 as of June 2014.

However, it should be noted that LTP13 related to calculated emissions based on bus mileage and routeing information. As noted in Chapter 3, there may be a disparity between calculated and actual emissions for engines of less than Euro 6 standard in certain driving conditions. We will continue monitor measured emissions, and will reinstate an equivalent indicator if necessary.

Road and footway condition indicators

Figure 2.19. Indicator LTP 14: Principal roads where maintenance should be considered[5]

Target: Percentage of network where intervention is needed to be 4% or less in 2014/15

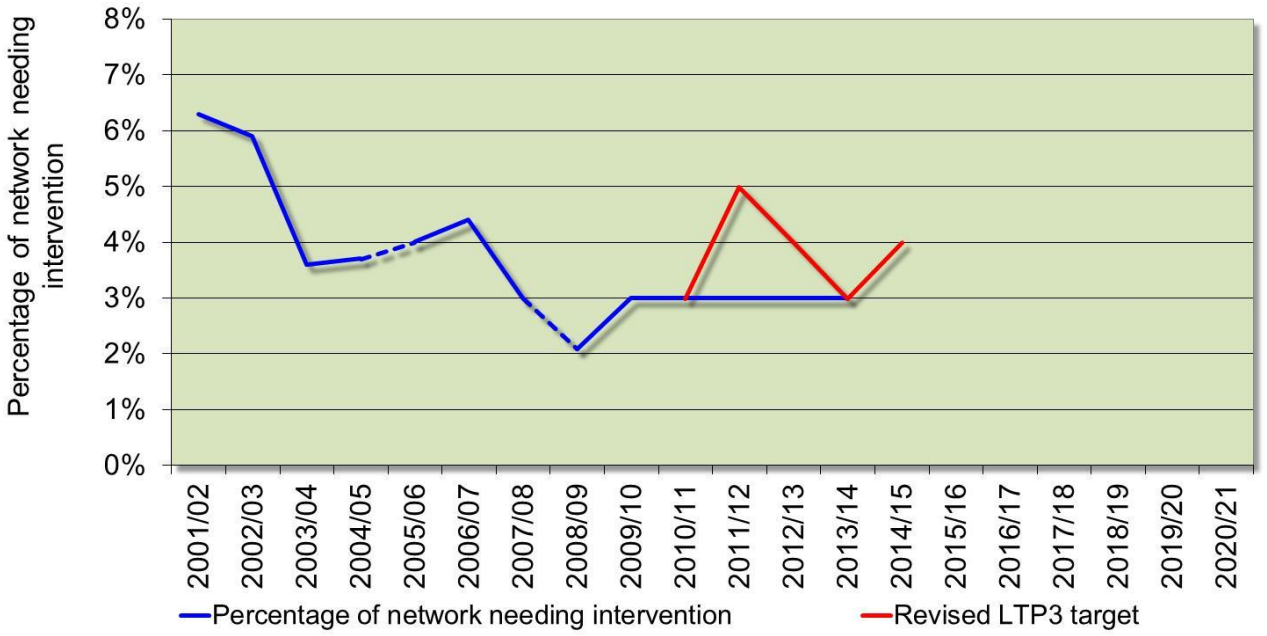
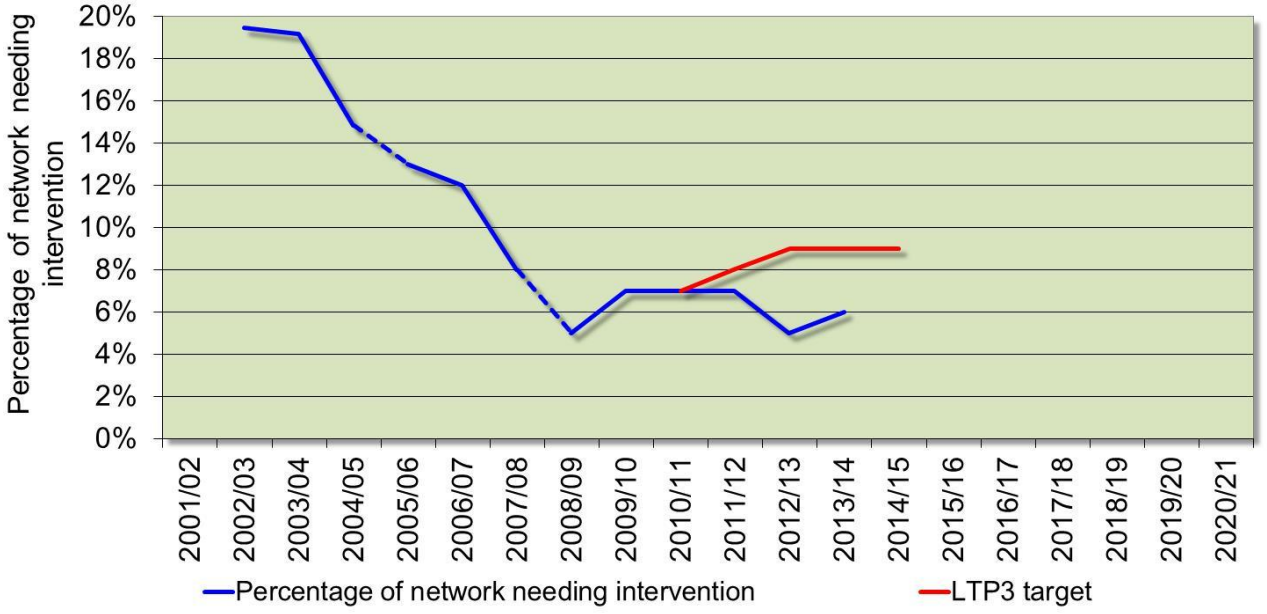


Figure 2.20. Indicator LTP 15: Non-principal classified roads where maintenance should be considered

Target: Percentage of network where intervention is needed to be 9% or less in 2014/15

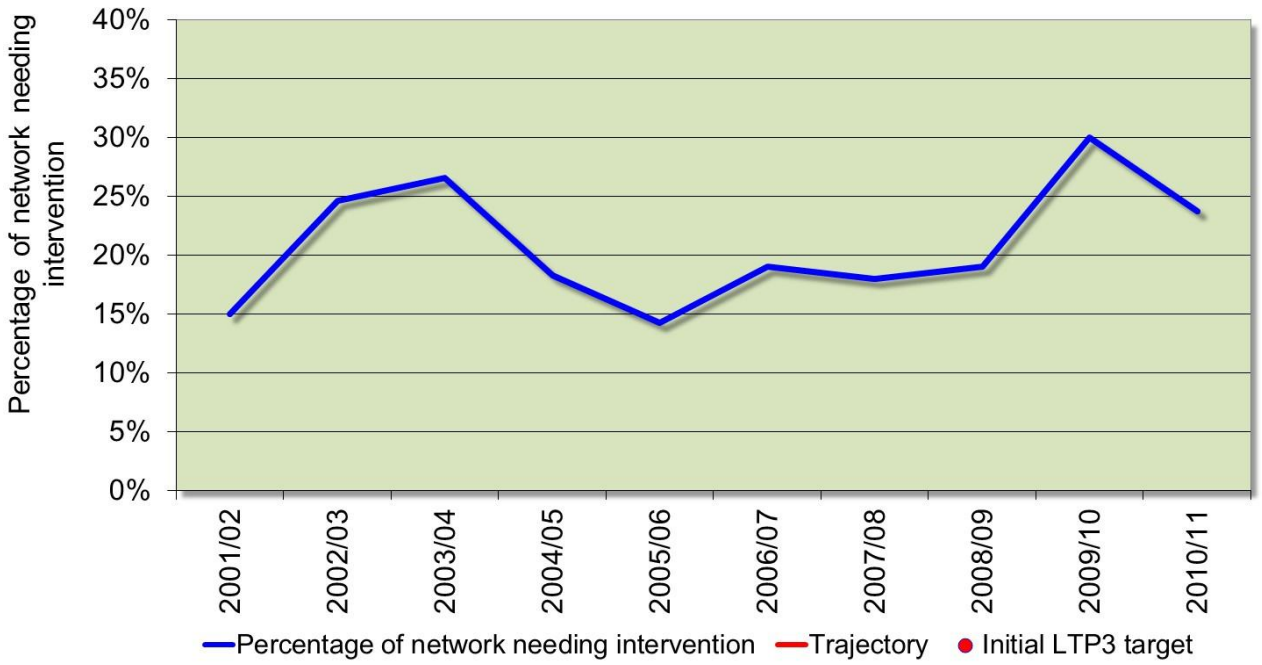


[5] Figure 2.19 and Figure 2.20 show historic data for the period before 2008/09. The Department for Transport changed the methodology for monitoring of principal and non-principle road condition twice in the period between 2001/02 and 2008/09. The periods of change are shown as dotted lines. The different methodologies produce similar results, but the figures cannot be directly compared. However, the trend in principal road condition can be seen from the graphs.

Indicators LTP 14 and LTP 15 monitor the condition of the principal[6] and non-principal[7] road networks, and are shown in Figure 2.19 and Figure 2.20. The methodology for measuring condition has changed twice in each case since our first LTP was adopted (shown as dotted lines in the graphs).

Figure 2.21 shows footway condition as measured by Best Value Performance Indicator 187 (BVPI 187) in the period between 2001/02 and 2010/11.

Figure 2.21. Historic Footway condition data as measured by Best Value Performance Indicator 187



We are currently considering a new footway indicator, the data for which will cover 100% of the footway network over a period of years. This national data set should be able to provide us with a red/amber/green % figure every year.

Key actions

To meet these targets we have developed a well-planned and targeted maintenance programme and will deliver this in a timely manner. Where appropriate we will combine maintenance works with other improvements, such as road safety schemes which include anti-skid surfacing.

Principal risks and how they will be managed

The UK Climate Impacts Programme is predicting drier summers and wetter winters. This could lead to increased damage to the road network in the county. We have produced an Action Plan for adapting to climate change which will include measures to future-proof our maintenance strategy against the effects of climate change.

[6] A category of road identified in the Highways Act 1980, consisting of all A roads and motorways. This term is now largely unused except in legislation, and in road condition monitoring.
[7] The B Road network and 'classified unnumbered roads'.

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.

The junction of Brampton Road with Huntingdon Station access and the new Huntingdon West of Town Centre Link Road (Edison Bell Way), which is opening up land for development.

- Public consultation
- 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 LTP Objectives, highlight the key challenges which form the basis of our transport strategy.

LTP 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.

LTP Objectives 1 and 4, outlined in Chapter 2, 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.

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[8] 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.

[8] 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 be phased out over the coming years. In light of this, the Cambridgeshire Future Transport programme was set up as a joint initiative with partners from across Cambridgeshire and Peterborough to help provide solutions to the County's transport challenges.

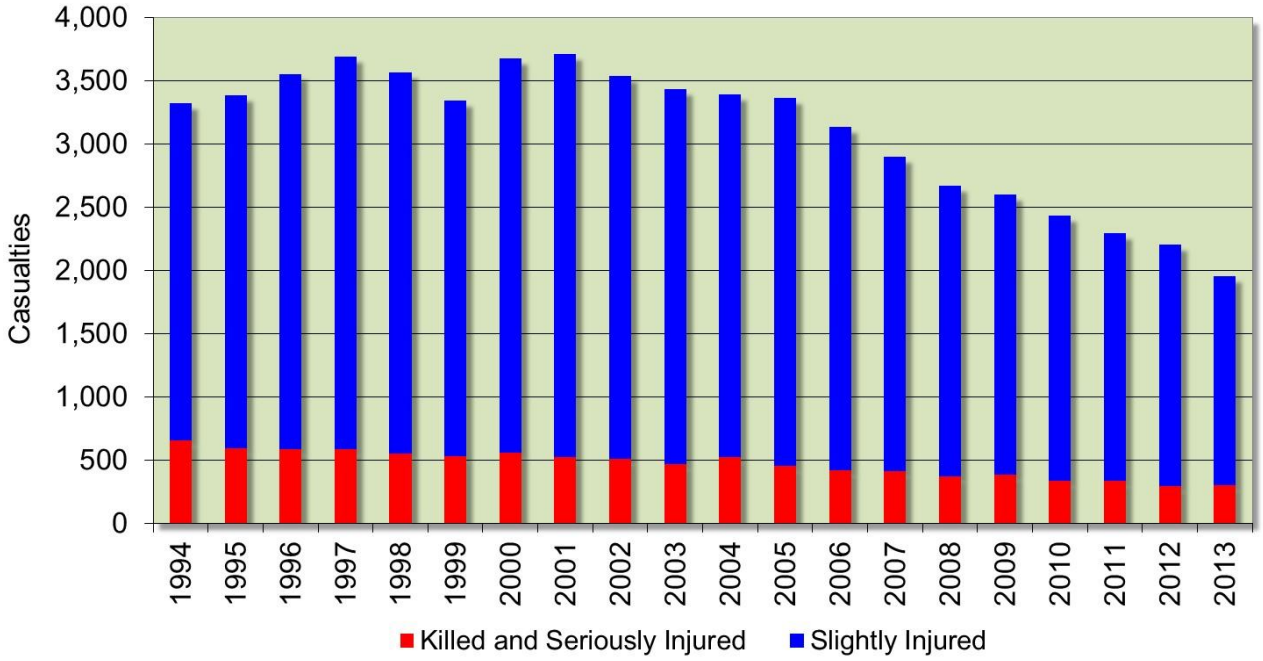
The lack of public transport in rural areas causes real issues for those who do not own, or have access to a private car, which at the time of the 2001 Census was 18% of the population of the county, although this varies by district.

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. In addition, 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 2013 there were 1,475 accidents that resulted in injury reported on Cambridgeshire's roads, in which 305 casualties were killed or seriously injured. It is estimated that injury accidents on our roads cost £167 million annually[9], but the impact of these tragedies on families and communities is impossible to quantify. Figure 3.1 shows casualties from road accidents in the county since 1994.

Figure 3.1. Road accident casualties in Cambridgeshire since 1994



Since our baseline of 2005-2009, across Cambridgeshire the number of people killed or seriously injured has dropped by 26%, and slight injuries have reduced by 34%. However one death or injury is one too many therefore we need to continue to do all we can to

[9] 2012 Joint Casualty Data Report

make our roads safer, address misperceptions of safety and to train and educate people to travel more safely.

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 peak age for car driver and car passenger casualties is 18. The peak for motorcyclists is aged 16-17.
- **Work-related:** Nearly one half of all injury accidents occur during journeys undertaken to/from or as part of work.
- **Motorcycle accidents:** Motorcyclists in Cambridgeshire account for a disproportionately high percentage of overall deaths and serious injuries.
- **Speed:** National research estimates that excess speed is a contributory factor in a third of all fatal accidents.
- **Rural roads:** Accidents on rural roads are a significant issue in Cambridgeshire. In 2013, 54% of all casualties, 64% of serious injuries and 89% of deaths occurred on rural roads, figures which are much higher than the average for Great Britain. Above average traffic density on Cambridgeshire's rural roads is a major factor in the high per capita casualty rate in the county, which is particularly poor for the rural district of Fenland.
- **Pedal Cycle Accidents, particularly in Cambridge City:** Pedal cyclists account for over one half of all casualties injured on the roads in Cambridge. This is related to high levels of cycling in the City.

Cyclist on Silver Street, Cambridge

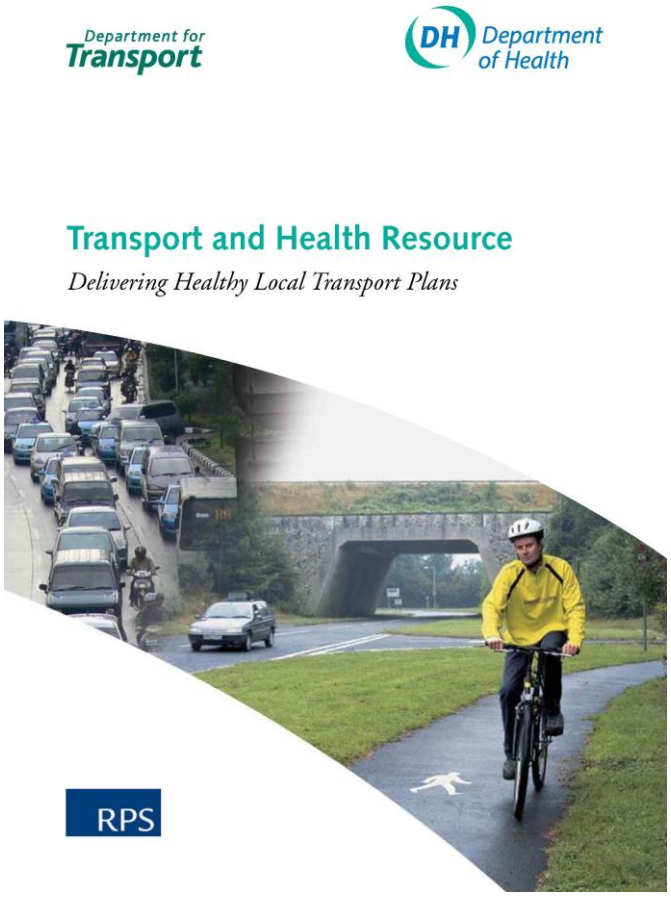
Issue – contributing to better health and active travel

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, also 25% of trips are for journeys under two miles. 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.

Good transport links can improve access to health-improving life opportunities such as education, fresh food and health-care. Transport planning can encourage active forms of transport which can lead to improvement in the physical activity. Good transport planning can also enhance social capital by increasing the number of people walking or cycling on the streets and making the streets a place of social interaction.

Ability to access transport, particularly in rural areas, can affect access to health services, and may also affect people's ability to access their social networks, which are important to maintaining mental and physical health. Nearly one in five of Cambridgeshire's population do not have access to a car or van. This goes down to less than one in ten for children living in households with no access to a car or van but up to four in ten pensioners. The full Joint Strategic Needs Assessment (JSNA) contains links to detailed maps that demonstrate the patterns and inequalities for transport and access that are present in Cambridgeshire.



Government advice on Delivering Healthy Local Transport Plans

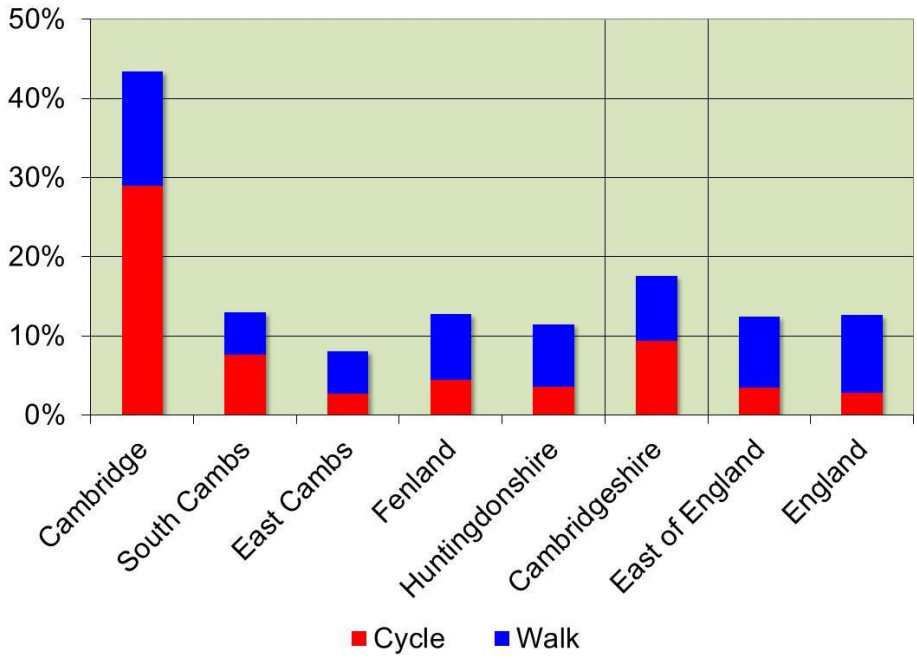
The impact of physical inactivity on society is becoming a significant issue at both a local and a national level. In recent years obesity has emerged as an important public health issue, particularly among children. Physical inactivity is a major risk factor for Coronary Heart Disease. Weight gain is 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.

Nationally the prevalence of obesity among adults has increased over recent years. The estimated levels of obesity in Cambridgeshire (22.1%) are significantly lower than in England (24.2%). Fenland, with estimated obesity at 25.8%, is significantly higher than the county level (22.1%) but is not in comparison to the national levels (24.2%). 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 in 2012-13 7.5 % of reception class children and 15.8% of Year 6 primary school children are classed as obese.

The significance of the problem at a local level and the need to address it before it gets worse is recognised. In addition, The Cambridgeshire Health and Wellbeing Board's Health and Wellbeing Strategy Priority 3 contains an action to increase participation in sport and Physical Activity

Figure 3.2. Levels of walking and cycling to work 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 achieve the recommended levels of physical activity for adults of being active daily. Over a week, activity should add up to at least 150 minutes (2½ hours) of moderate intensity activity in bouts of ten minutes or more. 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 in Chapter 4 (Challenge 3). 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.

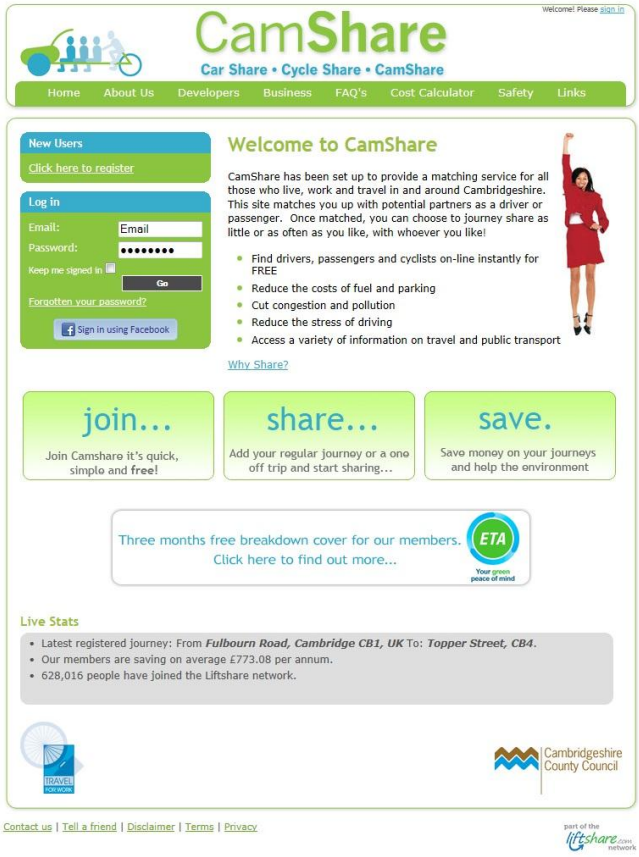
LTP Objective 2

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. For example, Camshare provides a facility that enables cyclists to find a cycle buddy to share their journey.



The CamShare website

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 evidence suggests that there is some depravation 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.

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[10]. Conversely Huntingdonshire will see a significant decrease in the number of young people, as will, to a lesser extent, East Cambridgeshire and Fenland[11] .

Ely and Soham dial-a-Ride minibus

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.

[10] Cambridgeshire Joint Strategic Needs Assessment
[11] Fenland Sustainable Community Strategy Evidence Base

In all areas of the County, but particularly in rural 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 they can access positive leisure activities especially in the evenings, weekends and in school holidays contributes to the quality of their own and their 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.

Think! sign

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.

School Crossing Patrol

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.

LTP 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

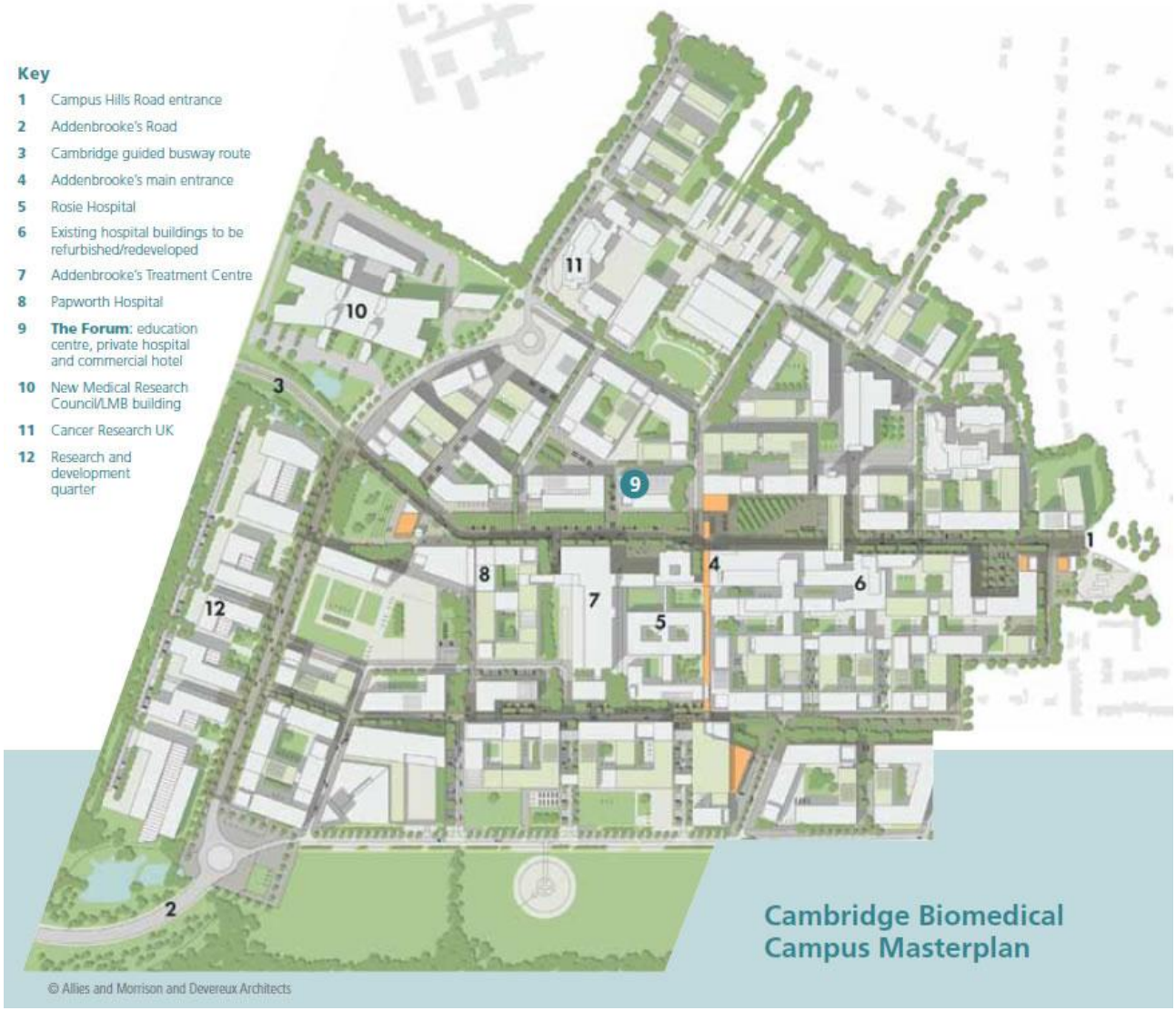
The Greater Cambridge area is an economic success story. The growth of the local economy has brought many new jobs and people to the region but population growth of over 20% since 1981 has placed significant pressure on the county's housing supply. In Cambridge, the average house price is nine times 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.

The area around Cambridge Station.
Since this photo was taken in 2011, two new platforms have been built at the station, the Busway has opened, and large parts of the site have been redeveloped for office, housing, student residence and retail use. Developers are contributing to station improvements including enlargement of the ticket hall and a 3,000 space cycle park.

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. Traffic congestion in the eastern 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.



Cambridge Biomedical Campus Masterplan (see [Cambridge University Hospitals] website)

In order to accommodate and plan for growth in the region, the Local Planning Authorities in Cambridgeshire all have targets for the delivery of jobs and housing through their Core Strategies and emerging Local Plans. Each Authority hopes to have their Local Plan adopted during the lifetime of LTP3. Alconbury will be a major new employment location and as ever, Cambridge and its surrounds will be the focus for many new jobs.

The majority of new housing 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 village extensions and to the county's towns such as Ely (North), March, Wisbech, Huntingdon and Soham. Subject to approval from the Secretary of State, Waterbeach New Town and new large extensions at Bourn Airfield and Cambourne West will also be delivered in South Cambridgeshire, whereas in Huntingdonshire there are proposals for large settlements at Alconbury and Wyton Airfield.

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.

The Boathouse Business Centre, Nene Waterfront, Wisbech

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.

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 high levels of through-traffic and freight traffic in Cambridgeshire, particularly on the A14. Major port development at Felixstowe and Harwich will lead to further through freight traffic on our roads, even allowing for the major efforts being made to accommodate more freight by rail. 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, where appropriate and maximising the capacity and efficiency of the existing network.

LTP Objective 5

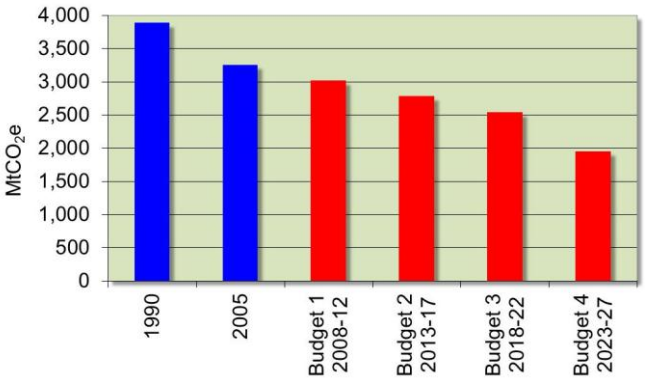
Meeting the challenges of climate change and enhancing the natural environment.

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 future generations. Domestic transport emitted around 137 million tonnes of carbon dioxide equivalent ($MtCO_2e$) in 2009, accounting for around 24% of UK domestic greenhouse gas emissions[12]. 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 offer opportunities for recreation while protecting and creating habitats for our flora and fauna.

Issue – reducing carbon dioxide 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. To drive progress and set the UK on a pathway towards these targets, the Act introduced a system of legally binding carbon budgets (see Figure 3.3), which set limits on the amount of emissions that may be produced in successive five-year periods, beginning in 2008.

Figure 3.3. UK Carbon budgets set in law in 2009 and 2011



The first three carbon budgets were set in law in May 2009 and require emissions to be reduced by at least 34% below the 1990 base year levels by 2020. The fourth carbon budget, covering the period 2023-2027, was set in law in June 2011 and requires emissions to be reduced by 50% below 1990 levels. The Carbon Plan (2011) sets out the Government's policies and proposals for meeting these carbon budgets, including transport polices. As transport contributes significantly to current emissions, reducing transport emissions will be vital if the budgets are to be met.UK Carbon budgets as introduced by the Climate Change Act.

The latest available data is from 2011, and shows that across Cambridgeshire, road transport emissions were 3.0 tonnes of CO_2 per person, down from 3.3 tonnes per person in 2008. It will be a challenge to reduce absolute levels of carbon dioxide 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 dioxide emissions from transport.

[12] HM Government (2011): The Carbon Plan: Delivering our Local Carbon Future.

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°C and 3.4°C warmer; and the summer mean between 1.2°C and 4.3°C warmer. 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 affecting low-lying parts of the county, especially in 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 £3 Million 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°C and 4.3°C over the next 40 years, we can expect to see further disruption to the network through heat and subsidence damage.

More intense rainfall will affect embankments and bridges, as well as washing more debris into gullies. There will also be a greater risk to 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 Review 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.

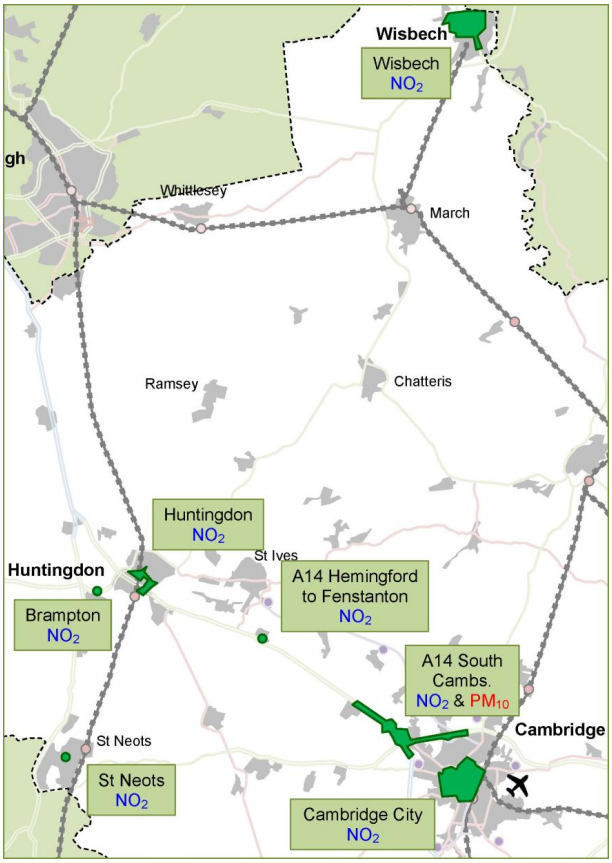
Issue – air quality

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, 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; DEFRA make a conservative estimate for one type of pollution (particulates) is that it reduces average life expectancy in the UK by around six months. Poor air quality is thought to cause more mortality and morbidity (deaths and illness) than passive smoking, road traffic accidents or obesity.

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 Chapter 4, Challenge 7 for more detail). Local Authorities are under a legal duty to take action in pursuit of these objectives under the Environment Act 1995 and under EU law.

In Cambridgeshire there are seven traffic related AQMAs as shown in Figure 3.4 and set out in Figure 4.10.

Figure 3.4. Traffic related AQMAs in Cambridgeshire



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.

Despite technological improvements in recent years and traffic levels in the County remaining broadly similar over the past decade, PM_{10} particulate matter and nitrogen dioxide levels have remained high. NO_2 is the main air pollutant of concern in the majority of Cambridgeshire AQMAs, with PM_{10} a key concern in South Cambridgeshire.

There are disparities between forecast emissions and measured concentrations of pollutants that are not fully understood. It is thought to be related to the actual on-road performance of diesel road vehicles being worse than shown in 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 standard vehicles. 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 to play a major role (post-2015).

The emission performance of the Cambridge vehicle fleet was surveyed in May 2013. The study reported that diesel vehicles are more polluting than petrol vehicles, and that particulate matter emissions are much higher from heavy diesel vehicles than light. Euro 6 vehicles demonstrated low emissions and petrol hybrid emissions were very low. Cars and light diesel vehicles contributed the largest share of NO_x and PM pollution on the inner ring road; buses and taxis the largest share in the city centre. The report recommends that for a real improvement in air quality in Cambridge, a shift to ultra-low emission vehicles is needed and taxis and buses should be targeted. The full report is available here and here.

The negative health impact of poor air quality on human health is now well defined. The 2013 WHO report concluded that annual $PM_{2.5}$ concentrations are associated with all-cause mortality, there is no safe level of PM exposure because it is toxic well below current EU and UK limits, and that nitrogen dioxide is toxic at concentrations at and below the current legal limits.

For this reason, it is vitally important that the LTP seeks the implementation of measures that will create conditions that will change travel behaviour and bring about the use of cleaner vehicles. Air quality, particularly in the designated AQMAs must be improved. Reductions in vehicle mileage by moving journeys to sustainable modes such as walking, cycling and public transport is important, but needs to be achieved alongside improvements to the vehicle fleet in terms of polluting emissions. This is most important for buses in Cambridge City Centre and for HCV on the A14 Corridor. A Joint Air Quality Action Plan for Cambridge, Huntingdonshire and South Cambridgeshire has been developed. It sets out a range of actions and initiatives aimed at improving air quality in the AQMAs. Further information on this can be found in Chapter 4 (Challenge 7).

Issue – noise

Noise is a common problem arising from transport, and studies have shown it can have major negative direct and indirect effects on health and well-being, on quality of life and on wildlife. Exposure to noise can increase stress levels, disrupt communications and disturb sleep. 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 (including Cambridgeshire County Council) to be "noisemaking authorities" in agglomerations of more than 100,000 people (such as Cambridge) or on roads which carry more than six million journeys per year (such as the A1, A1(M), A11 and A14, all managed by the Highways Agency). Under the regulations, the noisemaking authority is responsible for informing DEFRA's 'Noise Action Plans' to reduce the noise emitted on roads identified in those plans. An opportunity is presented by these Noise Action Plans to reduce noise from transport in the most severely affected areas.

The County Council also has a duty to mitigate adverse noise impacts that may be due to its actions in modifying infrastructure or building new infrastructure.

North Brink, Wisbech
(Creative Commons licensed image, Jim Linwood)

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

The natural environment is a very wide term which incorporates green infrastructure, landscape, biodiversity and the built and 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.

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 green spaces. 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
- 259 scheduled monuments
- 7,288 listed buildings
- 194 conservation areas
- 33 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 road 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 duties. 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.

Kings Parade, Cambridge

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 the National Planning Policy Framework and associated Guidance documents.

Challenges for the strategy

The challenges we face in reducing carbon dioxide 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 LTP objectives of the County Council. These are:

- **Challenge 1:** Improving the reliability of journey times by managing demand for road space, where appropriate 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 eight 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

Citi 1 bus on Bridge Street, Cambridge

This LTP sets out the transport strategy for Cambridgeshire to 2031. It has been developed using a variety of evidence and has been informed by consultation. It aims to address the challenges identified in Chapter 3. The implementation of this strategy will contribute towards the achievement of the Council's Priorities and the LTP 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.

With the adoption of the Transport Strategy for Cambridge and South Cambridgeshire (TSCSC) in March 2014 and the development of the draft Long Term Transport Strategy for Cambridgeshire (LTTS) comes more detail of the types of schemes and measures needed across the county to support the growth agenda and to keep Cambridgeshire moving, well in to the future. By the end of 2016, it is anticipated that new strategies for East Cambridgeshire, Fenland and Huntingdonshire will have also been adopted (see Figure 1.6), incorporating the current Market Town Strategies, and complementing the TSCSC.

In addition, this strategy and the LTTS are aligned with Peterborough City Council's Long Term Transport Strategy to 2026. Together, Cambridgeshire and Peterborough form the core of the Greater Cambridge Greater Peterborough Enterprise Partnership (GCGPEP). The County and City Council's Long Term Transport Strategies are critical parts of the evidence base for the LEP's Strategic Economic Plan, which forms the basis for negotiations for a growth deal with government through the Local Growth Fund.

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 to 20 years. This will assist us in securing funding from other sources such as the Local Growth Fund, future City Deal monies, developer contributions and the Local Sustainable Transport Fund which will be used to fund measures set out in this Plan and its daughter documents (see Figure 1.6).

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 LTTS and TSCSC particularly, set out some large-scale schemes which will be needed to deliver the growth agenda. These will need to be funded from sources other than the limited LTP funds, such as the Local Growth Fund and City Deal. More information on these funding streams can be found in Chapter 6.

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. For this refreshed version of LTP3, we have also refreshed our environmental assessments (Strategic Environmental Assessment and Habitats Regulation Assessment) to cover the large scale transport improvements planned, and these are appended to this document.

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 dioxide emissions, and encourage wider use of sustainable modes of transport. In addition, we will investigate opportunities for reallocation of road space 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.

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.

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, where appropriate 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 to manage demand where this 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	Our Strategy
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 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, historic environment and impacts on the landscape will be considered at the earliest stages of transport projects. • Support the provision of green infrastructure. • Reduce carbon dioxide 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.

While we aim to address all of the challenges, the main focus of our strategy is on measures and initiatives that maintain and enhance the economy, and that tackle climate change. This reflects the outcomes from public and stakeholder consultation as and the direction of national transport policy. The strategy recognises the need to balance economic growth with the need to tackle climate change. Many 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 relevant strategies.

User hierarchy

The user hierarchy reflects Manual for Streets 1 and 2, and is shown below.

1. Pedestrians.
2. Cyclists.
3. Public transport.
4. Specialist service vehicles.
   (e.g. emergency services, waste collection, disabled drivers).
5. Other motor vehicles.

The user hierarchy 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 Long Term Transport Strategy, the emerging district-based strategies and the Transport Strategy for Cambridge and South Cambridgeshire. The principles of Manual for Streets will also be applied to scheme design and implementation.

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 4.3. 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 primary 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. Owing to local geological conditions, many of our fen roads are particularly affected by weather conditions and it will continue to be a priority to be both proactive and to react quickly to maintenance needs.

The challenges

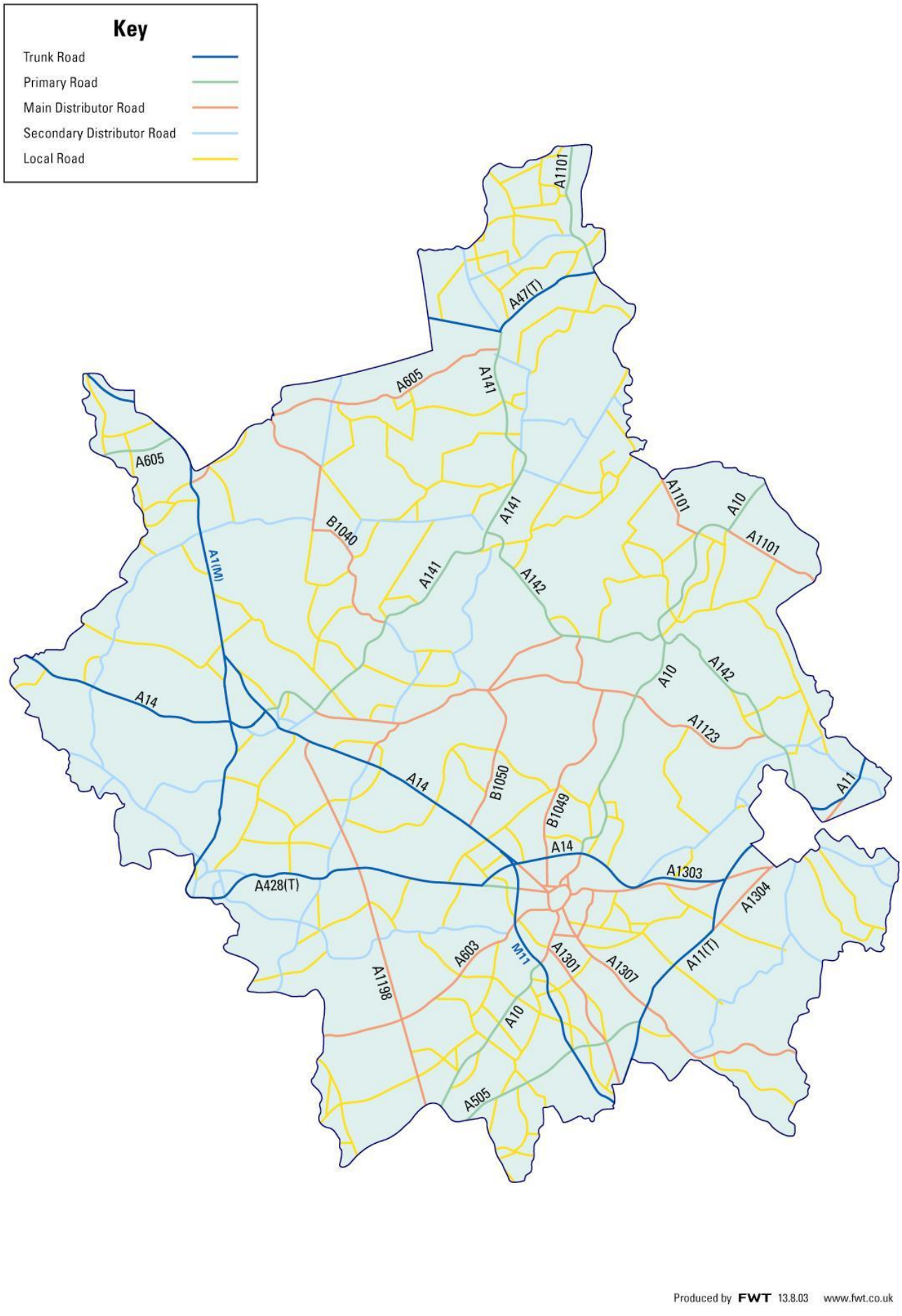
This chapter sets out the challenges for transport that we have identified to meet each of our LTP objectives, the linkages between which are summarised in Figure 4.2.

Figure 4.2. Challenges to meet our LTP Objectives

LTP Challenge	LTP Objectives*			
	1 & 4	2	3	5
Challenge 1: Improving the reliability of journey times by managing demand for road space, where appropriate 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			✓	✓

* LTP 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 4.3. Cambridgeshire Road hierarchy



Challenge 1: Improving the reliability of journey times by managing demand for road space, where appropriate 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 measures to manage demand
- Use Intelligent Transport Systems (ITS) to actively manage traffic and make more efficient use of existing assets
- Develop and keep under review the Long Term Transport Strategy, district based transport strategies and the action plans contained within them.
- 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. Consultation closed on 19 May 2014 on a document setting out what traffic commissioners should expect from operators who run registered bus routes and the standards for reliable and punctual services.

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 some cases congestion is caused by particular pinch points. An example of this at the national level is the A14 between Cambridge and Huntingdon (where the Highways Agency's A14 improvement scheme is now being consulted on, with scheme construction due to commence in 2016).

However, in many other cases congestion is caused by the sheer volume of traffic over a wide area on a constrained road network, where releasing congestion at one pinch point would simply relocate it to the next. This is particularly the case on the radial routes into Cambridge and routes around the city centre. Details of how we intend to make environmentally sustainable modes of transport a more viable and attractive option are detailed in Challenge 3, 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 measures to manage demand

Cambridge Core Traffic Scheme Phase 1: Bridge Street

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 techniques to manage demand in order 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, stronger measures are likely to be needed in Cambridge than will be needed in the market towns. We will be undertaking a detailed study looking at access and capacity issues across the city to better understand the constraints and opportunities for improving the way people and goods move around the city, to ensure continued economic prosperity and that Cambridge remains a place that people want to live, work and enjoy.

Measures to manage demand 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 and the District Councils are responsible for off-street parking, in public car parks.

There is a wide variation in parking charges across the county, from very high in some 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 road space. 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 measures to manage demand will be needed and we may explore the application of the principles of the Core Traffic Scheme over a wider area. This will be looked at in detail through the access and capacity study noted above.

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 delivery of the Transport Strategy for Cambridge and South Cambridgeshire and of the planned district-based strategies, we will implement schemes that prioritise specific users through reallocation of road space.

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. In addition to traditional timetable information, on-line tools include the 'Connect' mapping tool to locate your nearest bus stop and departure information; live traffic and travel information is available via Twitter and www.cambridgeshire.roadworks.org provides mapping software detailing current and planned road closures. This information allows the travelling public to better plan their journeys and to make arrangements to use alternative routes, when necessary.

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.

Our Integrated Highways Management Centre (IHMC) brings 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),

Good practice: sharing resources

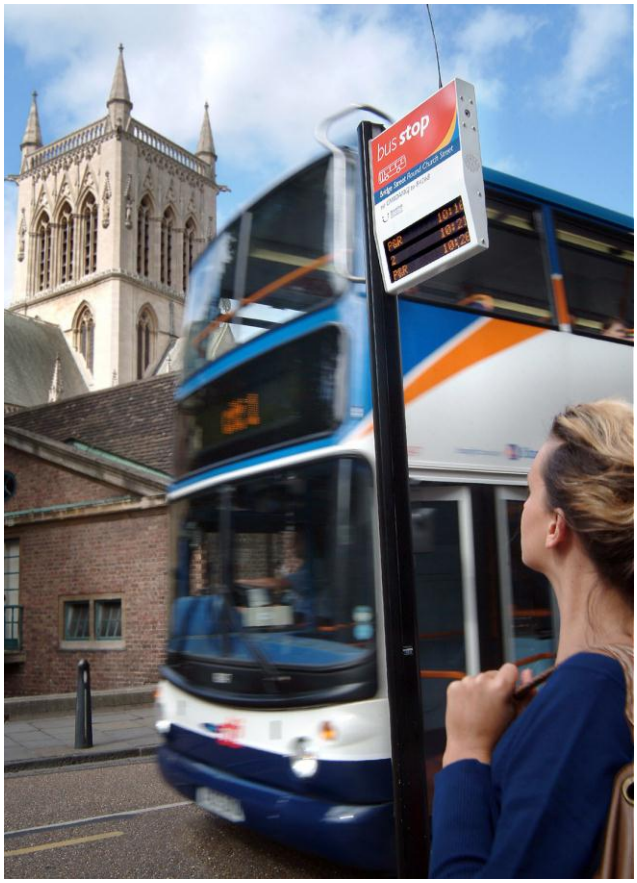
Cambridgeshire County Council leads a partnership with Peterborough City Council and Cambridgeshire Constabulary to share information that is captured by Automatic Number Plate Recognition cameras. The cameras are primarily used by the local authorities to capture real time information on vehicle journey 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 un-anonymised data for intelligence purposes.

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 understand the complexities of the causes of problems on the network. This is building 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.

We will expand our existing Intelligent Transport Systems to provide further integration in delivering transport information to the public and our partners by providing new facilities into the IHMC including additional CCTV coverage, VMS and other technology to better inform the public on highway network conditions

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.



Real Time Passenger Information, Bridge Street, Cambridge

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. We continue to support and promote the national journey planner transportdirect.info which is directly linked to our website. This gives information on travel options available for 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 & 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.

Real Time Passenger Information has provided a step change in the way that bus information is provided but more work is required. All of the major operators' bus fleets in the County are now RTPI enabled, although this is not the case with smaller operators. Whilst significant investment has equipped many bus stops with electronic flags displaying RTPI, there are still many bus stops where electronic flags could be provided.

Subject to the availability of funding, we will now concentrate on equipping the remaining operators, provide RTPI to commuter hotspots and delivering electronic flag displays at more bus stops in the main urban areas and corridors between them. This is where there is the greatest opportunity for modal shift and where more bus services pass through individual stops.

However, this does not mean it is any less important for bus stops in rural areas to have good real time information, and in the fullness of time we would aim for many rural stops to be equipped with electronic flag displays. However, we need to have a different approach to providing information in these areas. This includes greater promotion of our mobile phone application, development of our web based applications and ensuring that the necessary information for their use is available at bus stops.

Develop and keep under review the Long Term Transport Strategy, and district-based transport strategies,

Figure 1.5 in Chapter 1 shows the detailed strategies that sit under the Local transport Plan, and the timescales for their development and review (as of April 2014). Figure 1.6 shows the coverage of the action plans detailed in Figure 1.4.

Long Term Transport Strategy

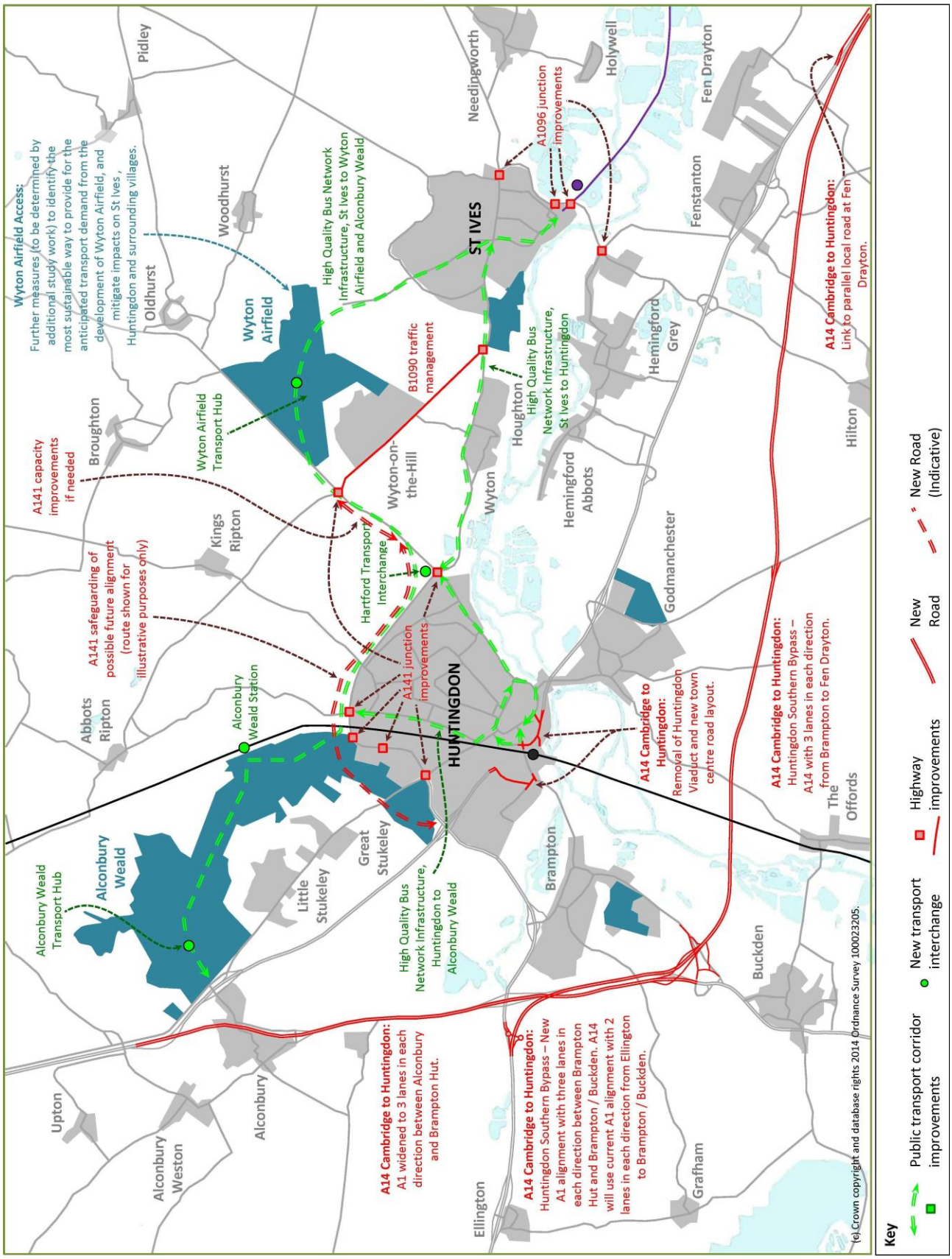
The Long Term Transport Strategy forms part of this Local Transport Plan and sets out the major transport improvements which will be needed to facilitate the large-scale growth which is planned through the current and emerging new Local Plans to 2031 (2036 in Huntingdonshire).

Growth and the Long Term Transport Strategy in the Huntingdon area

An example of the scale of growth is that in the Huntingdon area. With 8,000 new jobs planned at the Enterprise Zone at Alconbury Weald, together with well over 10,000 new homes at Alconbury Weald, Wyton Airfield and around Huntingdon over the next 25 years, the economic profile of the area will drastically change. The area will be a major economic hub, with new travel patterns and new pressures on the transport network.

The A14 Cambridge to Huntingdon improvement will provide some relief to traffic problems in Huntingdon, Godmanchester, Brampton and St Ives, but new transport links will still be needed to cater for this level of new development. There will be considerable demand for travel between Alconbury and Huntingdon (the main service centre for the new development) with a strong need for sustainable transport links between the two settlements. The transport interventions proposed for this area in the LTTS are shown in Figure 4.4. Detail of these interventions can be found in the LTTS, along with details of major interventions required in the rest of the county.

Figure 4.4. LTTS plan showing major infrastructure required in the Huntingdon area



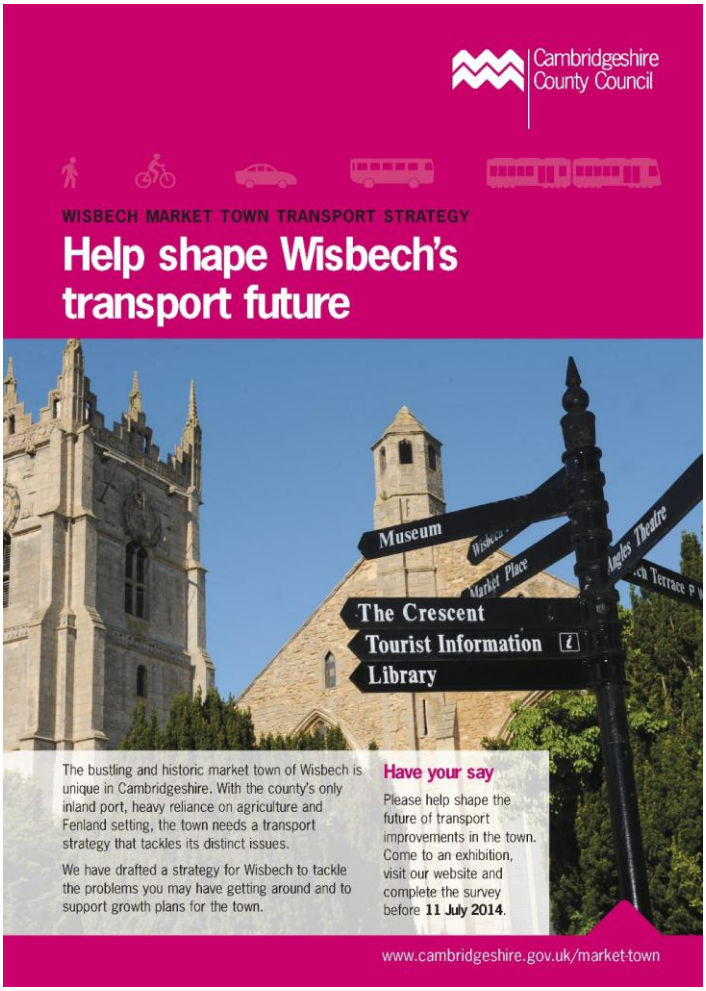
District based transport strategies

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]. The strategy for Whittlesey, (the final market town in Cambridgeshire for which a strategy was developed) was adopted in November 2012.

Again using Huntingdon as an example, the Huntingdon and Godmanchester MTTS is closely aligned with and reflective of the wider and longer term transport needs of the area. The draft updated MTTS has been developed alongside the LTTS. We have worked closely with all of our District Councils, and in this case, Huntingdonshire District Council, to prepare these strategies, taking account of their emerging Local Plans.

Moving forward, the action plans contained in the market town strategies will be reviewed on a rolling basis to ensure that they remain up to date and that the delivery programmes of schemes and measures remain appropriate. They will consider the detail of many of the principles surrounding measures to manage demand outlined in this section, as well as many other areas of this strategy, particularly sustainable transport and road safety.

The strategies themselves will be incorporated in district wide transport strategies that will be in place across the county by the end of 2015/16. These strategies will look at all aspects of transport need in the districts, and will be closely aligned with the Local Plans to ensure that transport and growth continue to be planned together. The first of these, the Transport Strategy for Cambridge and South Cambridgeshire is discussed below. Timescales for the development of the remaining strategies can be found in Figure 1.6.



Wisbech Market Town Transport Strategy consultation leaflet

Transport Strategy for Cambridge and South Cambridgeshire

A new transport strategy covering Cambridge and South Cambridgeshire was adopted as part of LTP3 in March 2014. It sets out how in transport terms we intend to accommodate the growth that is planned for the city and the district of South Cambridgeshire. It is a strategy which supports growth while protecting the historic environment and special

[13] Existing Market Town Transport Strategies can be viewed at http://www.cambridgeshire.gov.uk/info/20006/travel_roads_and_parking/66/transport_plans_and_policies/3

character of Cambridge. It has been developed closely with Cambridge City Council and South Cambridgeshire District Council in the development of their respective draft submission Local Plans to 2031.

The development of TSCSC was steered by the Joint Strategic Transport and Spatial Planning Group (JSTSPG) and took forward earlier work under the Transport Innovation Fund programme which was cancelled by the previous government in March 2010. This earlier work 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 measures to manage demand were coupled with the transport improvements. As such, the strategy contains some major public transport improvements and through a separate capacity and access study will consider demand management options.

The strategy will also be important as a 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 fully. The objectives of the strategy are:

- To ensure that the transport network supports the economy and acts as a catalyst for sustainable growth.
- To enhance accessibility to, from and within Cambridge and South Cambridgeshire (and beyond the strategy area).
- To ensure good transport links between new and existing communities, and the jobs and services people wish to access.
- To prioritise sustainable alternatives to the private car in the strategy area, and reduce the impacts of congestion on sustainable modes of transport.
- To meet air quality objectives and carbon reduction targets, and preserve the natural environment.
- To ensure that changes to the transport network respect and conserve the distinctive character of the area and people's quality of life.
- To ensure the strategy encourages healthy and active travel, supporting improved well-being.
- To manage the transport network effectively and efficiently.

The strategy itself can be found here.

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 predicted to continue to increase over the next 20-30 years. Network Rail expects rail freight traffic to quadruple from 2010 levels by 2030.

This increase in freight traffic will need to be accommodated while minimising its impact on the transport network and local communities. At present the estimated cost of congestion on the A14 is £80 million[14] each year. Congestion and quality of life issues such as road safety, the historic environment, noise, climate change and greenhouse gas emissions also need to be considered when planning for the movement and management of freight.

[14] See http://www.networkrail.co.uk/aspx/8512.aspx

Road freight

Freight routeing

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.

In early 2012, an updated Heavy Commercial Vehicle Strategy was adopted by the County Council. The strategy recognises the economic importance of road haulage and the need to balance this with the environmental impact of lorries, through partnership working with the haulage industry and local communities. It sets out a range of interventions to mitigate lorry impacts, stressing that formal regulation should be considered the final and not the first option.

Lorry routeing agreements

A lorry routeing agreement is in place between the County 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 advised that they had 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.

An advisory freight map for the county is available on our website. It aims to reconcile the needs of local communities and lorry operators. 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.

A tanker on Branch Bank between Ely and Littleport

A Cambridge city centre map displays recommended access points into and out of the city. HCVs should only use the routes within Cambridge if they are collecting or delivering

within the city centre. In addition to this map, there are also downloadable satellite navigation apps available which alert the user to the county's weight restrictions.

In addition, as part of planning agreements we will continue to 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.

As part of the Regional Freight Quality Partnership (RFQP), we work with our neighbouring counties and partners to try to improve HCV management around the Eastern Region. By adopting this approach we work to ensure that the economy can be sustained and any adverse effects on the environment and communities, minimised. Our current partners in the RFQP are:

- The Freight Transport Association.
- The Road Haulage Association.
- The Highways Agency.
- Neighbouring local authorities including Bedford, Central Bedfordshire, Peterborough, Norfolk, and Suffolk.

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; every freight train takes more than 30 HCVs off the roads. The Council strongly supports increasing the amount of freight transported via rail, and the shift from road to rail wherever possible.

One of the three rail terminals at the Port of Felixstowe

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. Our Railway's Future was a report published by Network Rail in 2012, and sets out that rail freight was up 60% in 10 years, with 100 million tonnes of freight moved by rail in 2011.

Network Rail predicts that rail freight will grow by over 30% in the next decade and by as much as 140% in the next 30 years. 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. Current plans for rail investment in the Anglian region alone should take 750,000 lorry journeys off roads in the region each year.

Felixstowe to Nuneaton – F2N

Freight train on the Ipswich Chord, which opened in April 2014 as part of the F2N project.

The upgrading of the route from Felixstowe to Nuneaton via Ely, Peterborough and Leicester will substantially increase capacity for rail freight movements from the Port of Felixstowe, which currently has three rail terminals. The F2N 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. Rail freight traffic through Cambridgeshire is likely to more than quadruple.

The predicted increased share of rail freight from Felixstowe will help to reduce congestion on the road network, and in particularly on the A14 through Suffolk and Cambridgeshire. It will improve road safety and reduce CO_2 emissions by around three-quarters compared to a road freight trip. 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.

There are particular constraints on the rail network at Ely which cause capacity problems for both the rail and road networks. These include:

- The Ely north rail junction where the lines from Peterborough, Kings Lynn and Norwich converge.
- The single track section of line between Ely and Soham.
- Congestion at the A142 low bridge / level crossing immediately north of Ely station.

To address the first two points, Network Rail has programmed improvements in its Control Period 5 between 2014 and 2019. These are part of wider improvements over the entire F2N route that will allow more and longer freight trains to run.

A southern bypass of Ely has been prioritised by the Local Transport Board (LTB) for delivery from 2015/16, and will allow the closure of the A142 level crossing, removing the conflict between road and rail traffic at this location.

Similarly, the LTB have prioritised investment in a bridge or underpass to replace the A605 Kings Dyke level crossing in Whittlesey, where there will also be large increases in train movements and increased congestion as a result.

Further detail of the Ely Southern Bypass and Kings Dyke schemes can be found in the Long Term Transport Strategy and on the County Councils website.
These schemes will enable more freight to be transported by rail, but further potential may be unlocked with additional investment, such as the electrification of the F2N and rural rail routes, and potentially the delivery of the central section of East West Rail between Bedford and Cambridge. The County Council is lobbying for the electrification of F2N in Network Rail's control period 6 between 2019 and 2024.

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 2011 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
- 22 km of Busway
- 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.

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 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 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.

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. It is recognised that high quality design and maintenance standards of the transport network provide community safety benefits. The extent of our transport assets is extensive and as such demands on resources always outstrip what funding is available.

Our overall maintenance strategy

The County Council's Highway Asset Management Strategy sets out how the County Council will best manage the maintenance of the County's highway network, taking into consideration customer needs, local priorities, asset condition and best use of available resources. This will ensure best use of the Council's capital funds to gain the maximum efficiency and to ensure that savings can be achieved where possible.

It is intended that in December 2014 update of the Transport Delivery Plan (TDP) covering 2015/16 to 2017/18 will deliver comprehensively on the new Highway Asset Management Strategy. The TDP will be updated on an annual basis to maintain a three year forward programme. The Transport Delivery Plan sets out the delivery of major schemes, cycleways and minor improvements and the forward maintenance programme. The TDP sets out the whole transport programme in a single document. The current TDP for 2014/15 and 2015/16 sets out a preventative approach for the maintenance of both carriageway and footway assets to extend the whole life of assets by arresting / delaying deterioration.

Resurfacing work

Night time maintenance work

During 2014, the County Council will produce its Highway Infrastructure Asset Management Plan (HIAMP) that will detail how the Asset Management Strategy is to be fully applied. It will set out agreed levels of service, performance targets, standards for reactive maintenance, and will detail the mechanisms for putting together forward programmes that will be fully incorporated within the next TDP for the period from 2015/16 to 2017/18.

The TDP continues to support the jointly funded Local Highway Improvements Programme which aims to help meet some of the most pressing needs of our communities and businesses. Since this initiative was introduced in 2012, over 130 maintenance schemes of local importance have been delivered in partnership with local communities. Whilst the current TDP now includes all schemes for delivery in 2014/15 and 2015/16, the implementation of the schemes remains subject to ongoing review and change to allow for flexibility in dealing with emergencies and reprioritisation of schemes and to allow for detailed design considerations (e.g. unexpected ground conditions or utilities' works), opportunities and constraints on implementation (e.g. weather and traffic conditions) and best value considerations (e.g. where efficiencies can be achieved by grouping schemes together, including coordination with projects such as the Street Lighting PFI Contract and Connecting Cambridgeshire Superfast Broadband.

Street Lighting Private Finance Initiative (PFI)

The County Council maintains over 57,500 street lights, 3,900 illuminated traffic signs and 2,300 illuminated bollards in the County. In 2011 the Council agreed a 25 year street lighting PFI to replace:

- 56,000 street lights.
- All the illuminated road signs with new or de-illuminated road signs.
- All the illuminated bollards, most of which will be replaced with solar powered bollards.

Street light maintenance

The replacement programme is expected to run for five years. 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. The second part of the programme uses a new Central Management System to alter lighting times and lighting levels remotely. This means we can dim lights at off peak times and as a result we will reduce our energy consumption by approximately 46%, or 8.5 million kWhrs. At today's energy prices this will save in the region of £850,000 each year. By April 2014, 23,205 street lights had been replaced.

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. 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:

Peak hour traffic on Milton Road, Cambridge

- Work with local planning authorities to bring about new developments in the most sustainable and accessible locations
- Encourage and promote the adoption of travel plans
- Support the development and adoption of local guidance and policies that promote travel planning, such as the upcoming Travel Plan Guidance for planning applicants/developers being developed by the Travel for Work Partnership
- 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

Future development 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. Planned development set out in existing Local Plans / LDFs and in the emerging Local Plans to 2031 promote development in the following types of location.

- Within Cambridge or as sustainable extensions to the urban area, subject to environmental capacity and compatibility with Green Belt objectives
- At new settlements at Northstowe, Bourn Airfield, Waterbeach barracks, Alconbury Weald and Wyton Airfield.
- 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
- A village extension at Cambourne West.
- Within, or as extensions to, other 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 the Local Development Frameworks (LDFs) and Local Plans for each District as follows.

- Cambridge Local Plan 2006 and Cambridge Local Plan 2014: Proposed submission.
- East Cambridgeshire Local Development Framework Core Strategy 2009 and draft Local Plan.
- Fenland Local Plan 1993 (as amended) and Fenland Local Plan Core Strategy 2014.
- Huntingdonshire Local Development Framework Core Strategy 2009 and draft Local Plan to 2036.
- South Cambridgeshire Local Development Framework Core Strategy 2007 and Proposed Submission Local Plan.

Many of the LDFs and Local Plans of neighbouring authorities will impact on Cambridgeshire, including Peterborough, 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 sustainable settlements to reduce the need to travel.
- identifying land needed for transport improvements and making planning decisions which parallel the Manual for Streets 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 Community Infrastructure Levy.
- through development control decisions that support general transport aspirations of LTP3
- through the adoption of planning obligation strategies to secure funding for transport

The Localism Act 2011 published in December 2010 returned decision-making powers in housing and planning to local authorities and the communities they serve. Particularly, the Act set out:

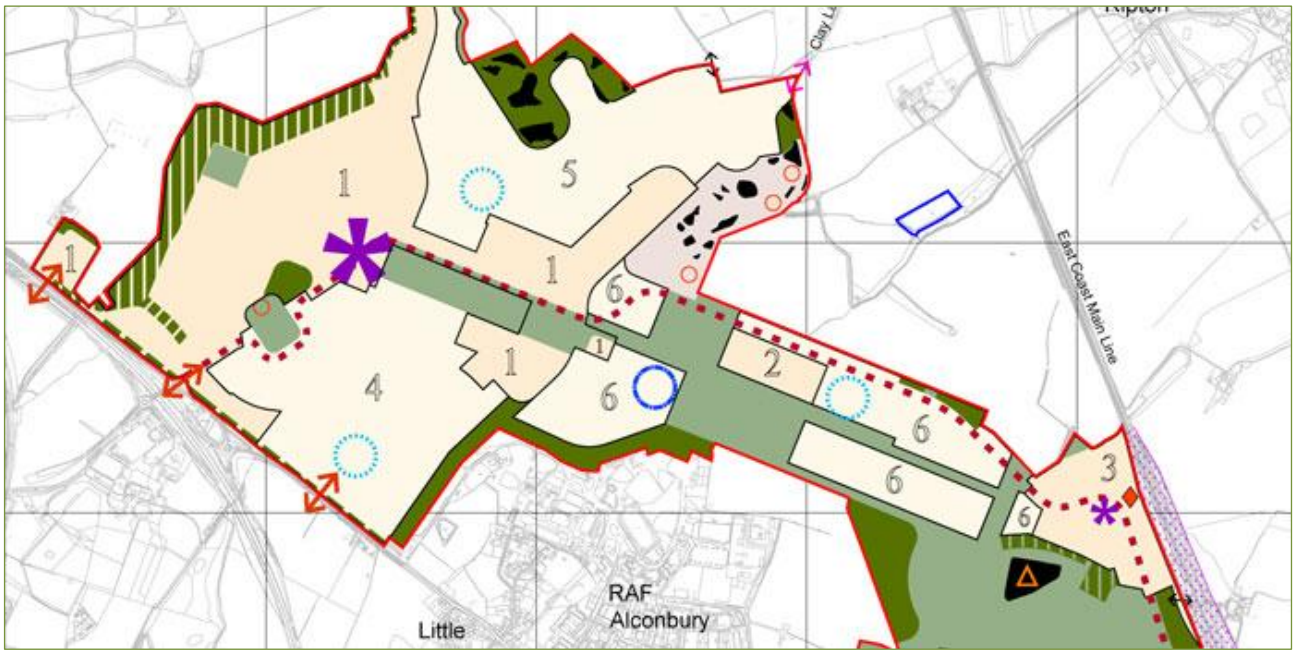
- The abolition of Regional Spatial Strategies.
- Transfer of national infrastructure decisions to the Secretary of State.
- The Community Infrastructure Levy (CIL), which allows councils to charge developers to pay for infrastructure. Some of the revenue will be available for the local community.
- Provide for neighbourhood development orders to allow communities to approve development without requiring normal planning consent.

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

Developer Funding

Section 106 Agreements

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.



The Alconbury Weald site

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.

Corridor Area Transport Plans

Four Corridor Area Transport Plans (the Eastern, Northern, Western and Southern) cover the whole of the Cambridge city area, and some of the necklace villages surrounding the city which lie in South Cambridgeshire. These plans were drawn up by Cambridgeshire County Council, in partnership with Cambridge City Council and South Cambridgeshire District Council, to 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.

The Corridor Area Transport Plans take into account current and emerging local and national policy. The 2006 Cambridge Local Plan and 2014 Local Plan submission draft South Cambridgeshire LDF and Proposed submission Local Plan, the Transport Strategy for Cambridge and South Cambridgeshire 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 review and update of the Corridor Area Transport Plans will be considered following the adoption of this refreshed LTP3.

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.

Community Infrastructure Levy

The Community Infrastructure Levy (CIL) is a levy that local authorities can choose to charge on new developments in their area. The money can be used to support development by funding infrastructure such as Education, Transport, Libraries and Waste.

The Levy was introduced by the Planning Act 2008 and it came into force on 6 April 2010 through the Community Infrastructure Levy Regulations 2010.

The administration of the Community Infrastructure Levy falls to the 'Charging Authority', in Cambridgeshire, this is the District Councils. They are responsible for;

- Setting the CIL rates – when setting these rates authorities must balance the infrastructure needs to support development and the viability of development. These rates vary from authority to authority and can vary by use and size. These are then published in a charging schedule.
- Agreeing the list of infrastructure (Regulation 123 list) that is to be funded through CIL.

In Cambridgeshire, Huntingdonshire District Council and East Cambridgeshire District Council have both adopted CIL. Cambridge City Council have carried out consultation and a draft charging schedule will be examined with the Local Plan in autumn 2014, with introduction being planned for early 2015. South Cambridgeshire District Council is consulting on their draft charging schedule until 7 July 2014, and introduction is planned in April 2015. For Fenland District Council, market viability testing is ongoing.

The Riverside Bridge in Cambridge, which was part funded by development

Cambridgeshire's Joint Planning Unit is putting together an infrastructure investment plan based on work already carried out that will inform investment decisions.

The Council is also working with each district council to progress proposals for a Community Infrastructure Levy (CIL). The District Council's CIL charging schedules will be used to secure developer contributions for transport and other infrastructure.

Design principles

The Department for Transport's Manual for Streets 1 and 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 require developers to design new developments around the Manual for Streets 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. We will continue to work with the Local Planning Authorities on good urban design.

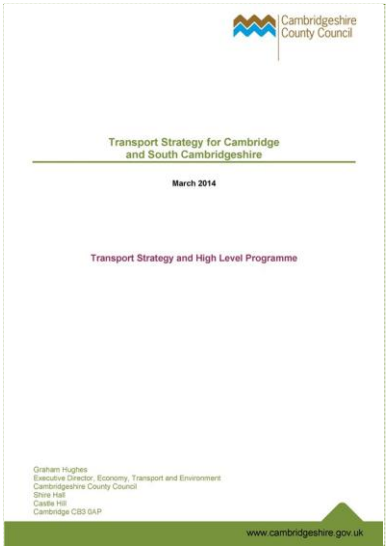
Pedestrian and cycle links between villages are also very important to provide access to services and recreational facilities, as well as providing leisure opportunities and maintaining social links. In appropriate cases, consideration will be given to the provision

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.

Transport Strategy for Cambridge and South Cambridgeshire (TSCSC) and other district based Transport Strategies

As noted for Challenge 1, the TSCSC provides an up to date policy basis that underpins the negotiation and securing of developer contributions. These contributions are used to mitigate the impacts of new development and provide environmentally sustainable transport in and around the city.



The Transport Strategy for Cambridge and South Cambridgeshire

Our suite of Market Town Transport Strategies (MTTS) will be incorporated into new district wide transport strategies for East Cambridgeshire, Fenland and Huntingdonshire. The MTTS 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. These programmes and the evidence of need that support them will be retained in the new District Based strategies, which will be updated on a rolling basis to ensure they remain current. Like the TSCSC (and in future the district based strategies), the MTTS support the development strategy by providing the policy basis and programme that underpins the negotiation and securing of developer contributions.

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 and an increase in healthy and active travel. They include initiatives such as adult cycle training, 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 and facilitate alternative travel modes to the car and can also help to secure funding towards infrastructure improvements such as cycle parking and bus stops, thereby helping to make sustainable travel choices easier for people. Our strategy for

tackling the challenge to make sustainable modes of transport a viable option for Cambridgeshire residents' sets out our detailed approach to smarter choices as part of this LTP, as outlined in Challenge 3.

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:

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

The Cambridgeshire Travel for Work Partnership is currently (June 2014) preparing a Travel Plan Guidance document with the County Council's Transport Assessment Team and the Local Planning Authorities (District Councils) to assist particularly developers, with preparing good quality travel plans with a robust implementation and monitoring framework. Travel Plans have become fully integrated into the planning requirements for new developments in recent years and we and our District Councils are committed to accepting only those Travel Plans which demonstrate a commitment to promoting and facilitating sustainable travel.

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 in Challenge 5.

Connecting Cambridgeshire

The County Council's commitment to improving broadband provision in the county is evidenced through the Connecting Cambridgeshire programme which aims to make superfast broadband available to 90% of residential premises, improving the county's digital infrastructure to drive economic growth, help our communities to thrive and streamline public service delivery.

The programme includes:

- Working with BT to roll out better broadband for homes and businesses across Cambridgeshire and Peterborough by the end of 2015
- Super Connected Cambridge, an additional project to bring faster connectivity and support businesses in Cambridge and surrounding urban areas
- Improving mobile coverage countywide
- Projects to improve digital inclusion by helping more people get online and support businesses to make the most of the latest technology

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 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

Cyclists and buses on Hills Road, Cambridge

- Make provisions for cyclists on road and off road, including cycle parking
- Promote cycle training for school children and 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
- Implement the Long Term Transport Strategy, Transport Strategy for Cambridge and South Cambridgeshire, our current Market Town Transport Strategies (and the future district based strategies) which promote sustainable travel
- Investigate measures to manage demand for cars where congestion is a particular problem
- Promote the health and lifestyle benefits of choosing sustainable modes of travel
- Support car clubs and car sharing schemes
- Support and expand our travel planning programmes working with businesses, developers, schools and individuals to promote sustainable travel.

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 across 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 below.

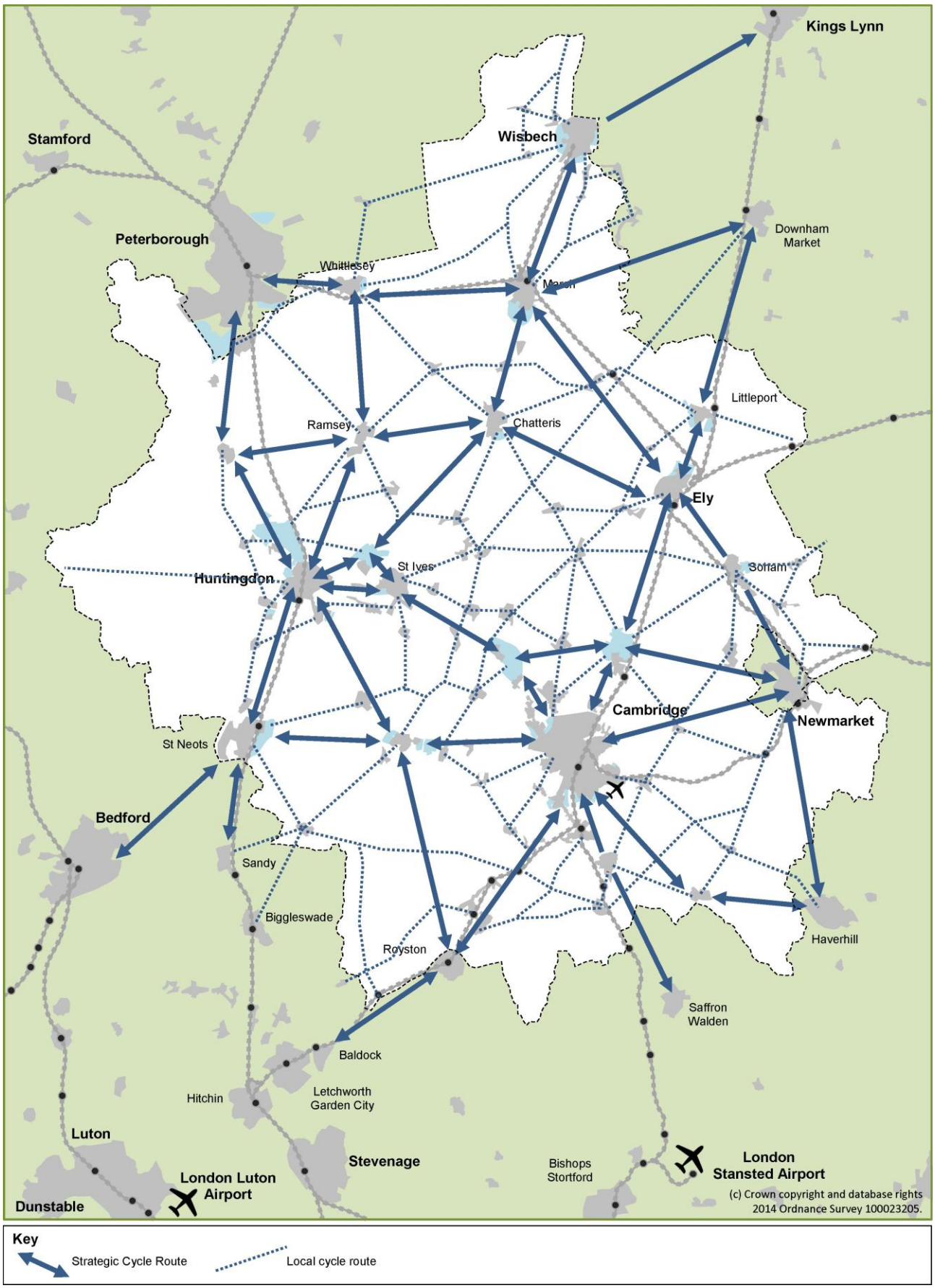
Negotiate with developers to ensure the provision of infrastructure as part of new developments

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 in Challenge 1 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 such as health care, leisure and recreational facilities, and heritage assets 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. This approach should take account of the need to address issues along the whole route, even where dedicated facilities are not provided or available in order to ensure barriers to more people walking and cycling are not exacerbated.



Indicative map from Long Term Transport Strategy showing the strategic cycle network.
This figure shows the principles that are guiding the development of the cycle strategy; to achieve excellent connectivity between Cambridge the Market Towns of Cambridgeshire and neighbouring towns with a strategic network, and a finer grain of links between villages and towns across the county, and within those towns and villages. Routes shown are therefore indicative.

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.

Cyclists by the River Cam at Midsummer Common, Cambridge

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.

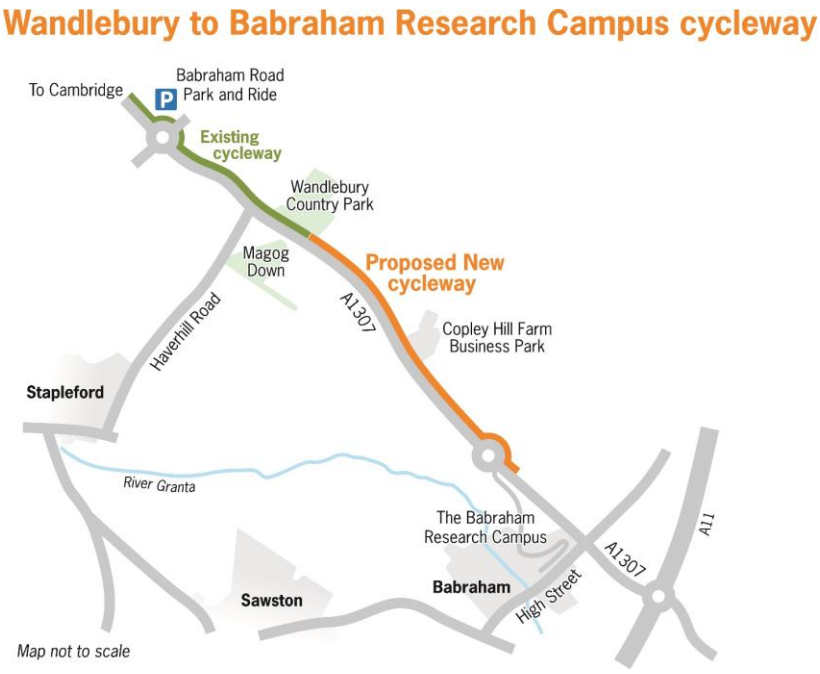
The principles of the strategic cycle network linking of Cambridge and the towns and villages of the county are set out in the Long Term Transport Strategy. The detail of improvements to the pedestrian and cycle network at a more local level are being developed through the TSCSCS and the Market Town Transport Strategies (and in future, the new district based strategies for East Cambridgeshire, Fenland and Huntingdonshire).

Rural areas

Rural areas often see lower cycle and pedestrian trip rates than Cambridge and the market towns, due to the larger distances that typically 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 between villages, places of employment, schools and other local services.

Using Cycle City Ambition Funding we have started to make some real improvements in cycle / footway links in South Cambridgeshire, linking villages with rail stations, schools and employment sites. New high quality off road cycle/pedestrian paths have recently been constructed alongside the A10 at Shepreth, linking several villages, schools and places of work, and from Sawston alongside the A505 to Granta Park. This cycleway also links to Whittlesford train station via existing cycle routes. Another example is the extension of the cycleway alongside the A1307 from Wandlebury to the Babraham Research Campus. This route now provides a high quality path from the Babraham Road Park & Ride site to Babraham.



Extension of the A1307 cycle route between Wandlebury Country Park and the Babraham Research Campus

For walking we will continue to open up the countryside via our Public Rights of Way network and Rights of Way Improvement Plan. As part of the development of new walking and cycle routes we will consider the creation of wildlife sites and corridors. In addition, the design of new facilities will take account of biodiversity needs, in line with our statutory duties.

Leisure routes

Cycling and walking offer an opportunity for leisure and exercise as well as a means of transportation. Both are family friendly and support the health agenda. We are working to provide where possible leisure routes that can be used to access the countryside and areas of interest. Cambridgeshire has 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 and Standards document 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.

Cycle parking provision at the Trumpington Park & Ride site, provided with LSTF funding

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 for a bicycle to be locked up by the frame, not only by the wheel.

Sheffield stands which are bolted to the ground are an example of a suitable facility. 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 bicycles.

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 the Transport Strategy for Cambridge and South Cambridgeshire and our Market Town Transport Strategies (and future district based transport strategies). 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.

In Cambridge there are now two large cycle parking facilities in the city centre, one beneath the Grand Arcade shopping centre and the second at Park Street car park. These provide around 400 secure parking spaces. Through our TSCSC, we will investigate extending these facilities or delivering a third cycle park if a suitable location can be found. It is clear that there is still significant demand for additional cycle parking in Cambridge, which we will seek to address. Plans are currently being drawn up for a 3,000 space bicycle park at Cambridge railway station, as part of the wider redevelopment of this area, and a 1,000 space facility will be provide at the new Cambridge Science Park station.

Our Market Town Transport Strategies also contain programmes aimed at increasing the availability of secure 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 –cycle proficiency training for adults and children

Bikeability is 'cycling proficiency' for the 21st century, designed to give the next generation the skills and confidence to ride their bikes on today's roads. It is a Department for Transport led programme which is being funded and rolled out across Cambridgeshire primary schools. Adults may also participate and if they are part of the Travel for Work Partnership, currently benefit from a 10% reduction in the cost of the sessions. Bikeability offers anyone the opportunity to learn or improve their bike riding skills.

Cycle training in schools

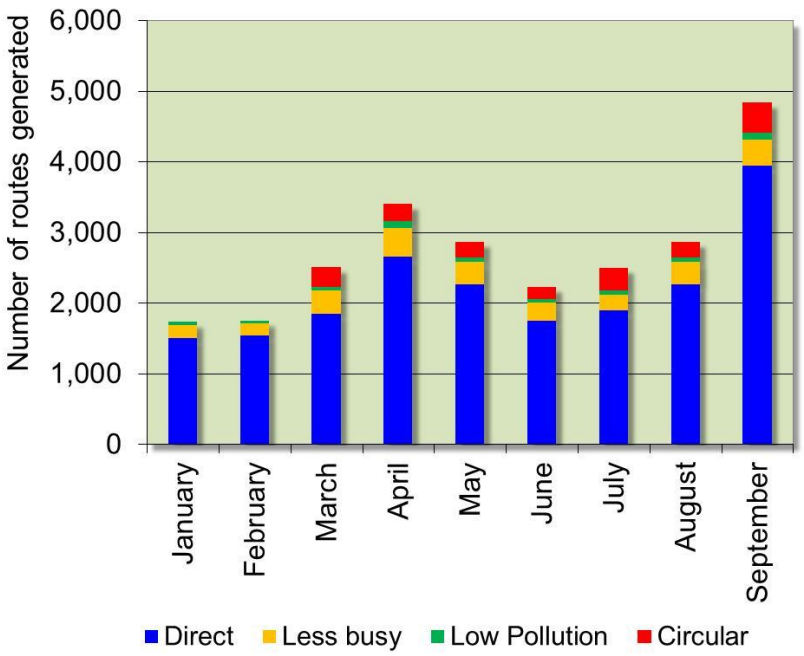
Cycle training in schools is an important part of our strategy. There is a long history of cycle training taking place in schools and of children taking their cycle proficiency test. If an individual begins cycling at an early age it is more likely that they will continue to do so in later life, it is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

Our approach to cycle training in schools programme are explained in Challenge 6.

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 dioxide 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.

Figure 4.5. 2010 usage statistics for walkit.com



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 transportdirect.info 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 4.5 illustrates the popularity of the tool, indicating around 2000 journey requests per month in 2010.

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.

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.

Le Tour 2014

2014 saw the Grand Depart of Stage 3 of the Tour de France visit Cambridge en route to London on Monday 7th July.

It is expected that with the significant publicity and excitement that this event brought, the profile of cycling in Cambridgeshire will be further enhanced. Along with Cambridge City Council, we will seek to use this world renowned sporting event to publicise and encourage cycling not only in Cambridge but across the county.

Raising awareness of both the benefits of cycling and the routes available is an important part of our strategy. We have developed (and will continue to update and add to) a series of cycle maps for the county, such as 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.

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

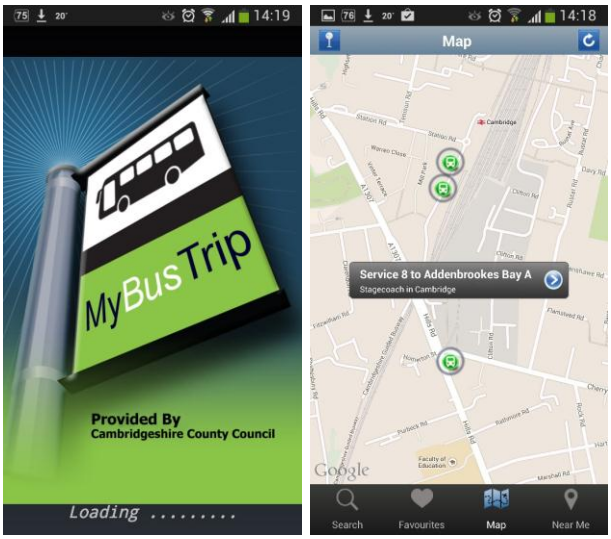
include cycling for fitness/health, the promotion of Bike Week events and adult cycle training.

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 MyBusTrip App

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 a national organisation providing a telephone and online journey planning service for journeys by all modes including buses. Our MyBusTrip app provides passengers with free direct access to real time bus information via their smartphone and includes:

- **Real time bus location:** displays a map with bus stops and shows real time locations of buses
- **Real time route map:** displays service routes on the map
- **Nearby stops and services:** gives access to bus stop and service information related to a location. The location is either set automatically (detected by GPS) or specified on the map by a Drop Pin
- **Bus operator:** displays the operator name, service and destination for the selected bus
- **Detailed journey information:** provides full information about a journey including where the service stops, the distance of stops from your current location, bus due time, predicted departure time and scheduled departure time

Challenge 1 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 set out in Challenge 5.

Rail

Information about rail services is also available on the transportdirect.info 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 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 in our Transport Strategy for Cambridge and South Cambridgeshire. Additional mechanisms will also be explored in the preparation of our new Transport Strategies for East Cambridgeshire, Fenland and Huntingdonshire (see Challenge 5). Information on monitoring and maintenance of our footpaths and pavements is contained within our Highways Policies and Standards document.

Cycling

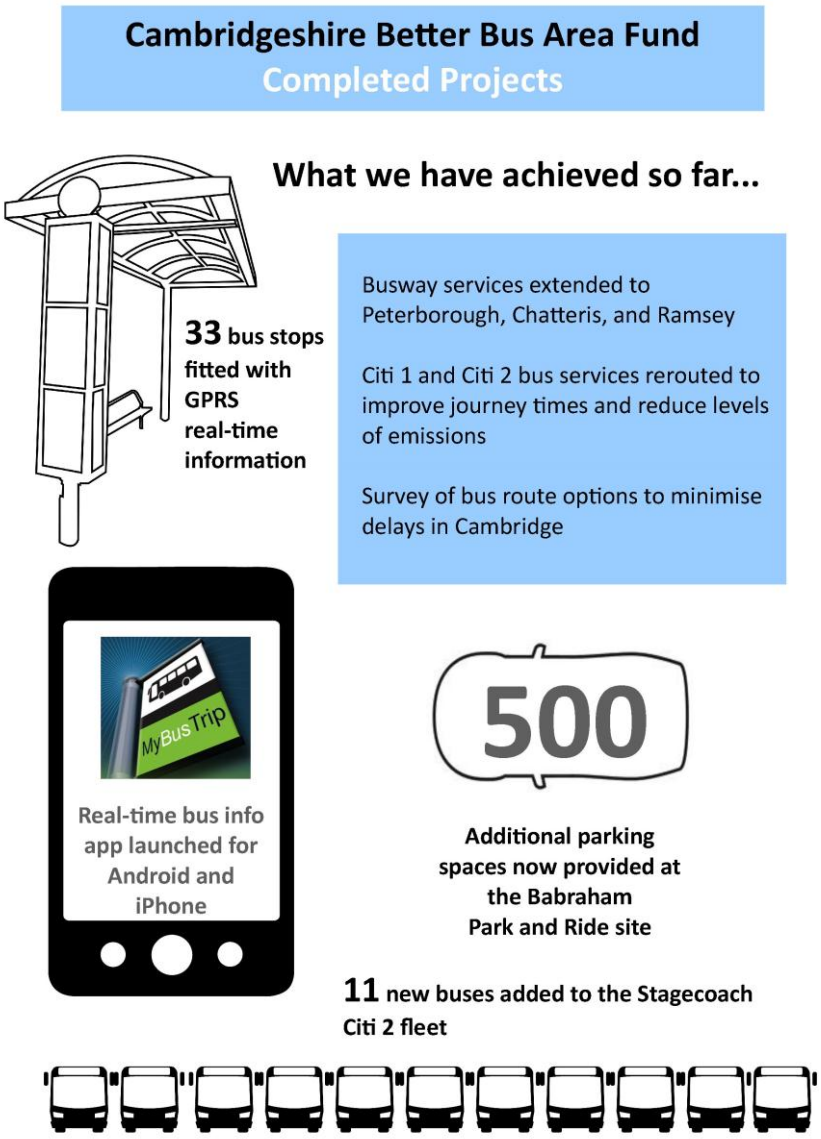
Cycling can provide access to other modes such as buses and trains which can then be used to complete a longer journey. Providing facilities that encourage this can help alleviate congestion around railway stations particularly at peak times and can reduce the problems with parking that can often overspill into residential streets.

Wimpole Hall Bike Bus

South Cambridgeshire District Council is piloting (with support from the Local Sustainable Transport Fund and the National Trust) a novel service which integrates bus and bike travel between villages on the Barton to Gamlingay corridor. The public bus service tows a 20 bike cycle trailer, departing from Cambridge station four times a day on Sundays and Bank holidays. This offers a Sunday service to villages that were not previously served, but also provides for trips between Cambridge and leisure destinations including Wimpole Hall and four Wildlife Trust sites. The service commenced in July 2014.

Better Bus Areas Fund

In 2012 we successfully bid to the DfT's Better Bus Areas Fund to improve bus journeys, make it easier for passengers to access services, and reduce pollution, in and around Cambridge.



Completed projects include:

- 12 Real-time information displays, six shelters, and one cycle stand installed to improve rural bus facilities at key locations in 14 parishes across South Cambridgeshire.
- 500 additional parking spaces provided at the Babraham Park & Ride site.
- Real-time bus information app launched for Android and iPhone.
- Improved drop-off facilities at Trumpington Park & Ride with minibuses from 14 private schools currently using the facility, reducing peak time traffic into the city.
- Camera enforcement equipment installed with signage to enforce key bus lanes in Cambridge to improve bus reliability.
- Smart card created for passengers wanting the additional flexibility of travelling on both Stagecoach and Go-Whippet Busway services.
- Improved road layout on Jesus Lane to improve bus journey times.
- Live message taxi rank system installed at St Andrews Street, Cambridge to stop over-ranking causing congestion in the city centre.

Early results show:

- 7.4 % increase in passenger journeys from 2011-12 baseline to 2013-14. This is an increase of 469,117 journeys (across Busway and Park & Ride services).
- Average Journey Time Saving on Busway, Park & Ride and Citi Services (compared to baseline) 3.9 minutes.

More information is available on our website.

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. Again, our Market Town Transport Strategies set out our programme for improving interchange facilities in the market towns. The Transport Strategy for Cambridge and South Cambridgeshire details improvements that aim to make it easier for people to cycle as part of longer journeys on buses or trains in the city and South Cambridgeshire.

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. To address this, there are plans to deliver a 3,000 space cycle park as part of the wider redevelopment of the station area. We will continue to work with the rail industry to improve the quality and number of cycle parking stands at stations in the county where needed.

A dedicated cycle route has been built alongside The Busway between St Ives and north Cambridge, and is part of the National Cycle Network Route 51. This route provides 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 & Ride facility at Longstanton.

Park & Ride

For people travelling to Cambridge by car, our seven 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. As part of the Transport Strategy for Cambridge and South Cambridgeshire, we plan to expand or relocate some of the existing sites. In addition, we will provide new sites targeted at providing travel options for residents of the major new settlements that are planned in the county, such as at Bourn Airfield / Cambourne West and at Waterbeach New Town. All of our Park & Ride sites offer high quality cycle parking and we will increase the amount of cycle parking provided where needed.

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 and our local strategies such as TSCSC, 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, Cambridge Science Park Station and the CB1 development will 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 the TSCSC.

The Foxton, Shepreth and Meldreth Community Rail Partnership

The Foxton, Shepreth and Meldreth Community Rail Partnership was launched in October 2013. It is an agreement between Network Rail, First Capital Connect (Govia from September 2014), the Meldreth, Shepreth and Foxton Rail User Group, Cambridgeshire County Council and South Cambridgeshire District Council.

Launch of the Partnership

The purpose of the partnership is:

- To recognise, maintain, and develop the community engagement programme, which aims to promote the local rail and the surrounding environment at Meldreth, Shepreth and Foxton Stations
- To involve other community groups with whom the Partnership share common ground
- To recognise the key role of rail to the local community and to promote it as a sustainable mode of transport
- Improve and enhance the station environments and promote green projects
- To support the initiatives developed jointly with First Capital Connect and Cambridgeshire County Council in integrated travel plans
- Recognise and promote the importance of local business in the community
- Work with local schools and young people in caring for the station environments
- Work together to generate funding for all associated projects
- Encourage open communication with all groups involved

Govia, the new Thameslink, Southern and Great Northern franchise holder will take over the running of these three stations in September 2014, and the CRP is seen as an important means of ensuring that the smaller village stations in South Cambridgeshire are not forgotten by what will become the largest franchise in the country.

There are currently two community rail partnerships in the county.

- The Hereward Community Rail Partnership is working to increase the frequency of trains stopping at the Fenland stations between Peterborough and Ely as well as to improve station facilities.
- The Foxton, Shepreth and Meldreth Community Rail Partnership, covering the three named stations on the line between Cambridge and Royston.

Cambridgeshire County Council has been investigating the possible reopening of the March to Wisbech rail line and three studies have been carried out to assess the case for reopening the line. These looked into the potential patronage and revenue generated by a rail service, the capital costs of reinstating the line and the wider economic benefits that a station would bring to Wisbech and the surrounding area. The next stage is expected to involve a GRIP2 Feasibility study. This work will look in more detail at the options and their relative costs and benefits, and will be funded by the Local Growth Fund.

In East Cambridgeshire, a reinstated rail station at Soham is planned and included as a scheme in the LTTS and in the LEP major scheme programme for delivery between 2015 and 2019. The scheme is to be progressed to GRIP 3 stage in the Network Rail planning process and the case for development is looking positive. It is considered that this scheme will support regeneration and housing growth locally and is being progressed by Cambridgeshire County Council, East Cambridgeshire District Council and Network Rail.

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 Busway services, passengers can buy a multi-operator ticket which allows them to travel on services by either 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. Plusbus operates in Cambridge, St Neots, Huntingdon, Ely and Peterborough.

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. In addition, we support of the development of smart cards to be used in neighbouring authorities.

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 and between 2011/12 and 2012/13 an additional 209,113

passenger journeys were made across Busway and Park & Ride services. 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.

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:

The Walden Road contra-flow bus lane

- George Street / Walden Street contra-flow bus lane inbound to Huntingdon bus station (already in place)
- 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),
- a bus lane, cycle path and footway inbound to St. Ives on the A1123 Houghton Road from the B1090 through to Hill Rise
- consideration of traffic management measures on the B1090
- Ongoing work to explore potential demand for bus priority measures into Huntingdon from Brampton and Hinchingbrooke, as well as the old A14 alignment.

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 sources of funding including the Local Growth Fund.

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.

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 preferred approach is 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. Their role in increasing public transport usage needs buy-in from a number of Council departments and partners, such as Partnership facilitation and the delivery of infrastructure changes, and from the District Councils in terms of monitoring. Two Quality Bus Partnerships exist in Cambridgeshire, one in Cambridge and one covering the operators of the Busway services. Quality Bus Partnerships have an important role to play in Air Quality Action Plans, as set out in Challenge 7.

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 a capacity and access study.

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

The continued support of community transport schemes is essential to meeting this challenge and is covered in detail in Challenge 5. Information on concessionary fares is also covered here.

Implement the Long Term Transport Strategy, Transport Strategy for Cambridge and South Cambridgeshire, Market Town Transport Strategies (and future district-based 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 local basis, our LTP has been delivered through

the Cambridge Access Strategy and our suite of Market Town Transport Strategies, which were developed and implemented during the periods of LTP1 and LTP2.

The TSCSC and our future district based transport strategies for East Cambridgeshire, Fenland and Huntingdonshire are taking on this role. Reviews of these strategies take place periodically; they will be dynamic documents that respond to changes taking place within the towns and to take advantage of funding opportunities which may arise, for example, through development.

The TSCSC was adopted in March 2014, and work is underway to develop the Transport Strategy for East Cambridgeshire, which will encompass the Ely MTTS and complement East Cambridgeshire District Council's planning work in Soham and Littleport. The transport covering Huntingdonshire and Fenland, again encompassing the relevant MTTSs will be developed in 2015/16. The implementation of these strategies is an essential part of our LTP.

The Cutter Ferry pedestrian / cycle bridge in Cambridge

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.

Huntingdon High Street

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. 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 role of community transport provision. This is detailed in Challenge 5.

Case Study: Cycle Cambridge and 'GC3'

According to 2011 Census data, cycling accounts for 29% of journeys to work within Cambridge – this is higher than anywhere else in the country – and it is also popular with the large student population. Cycle use is also spread relatively evenly over the various demographic groups, with survey work indicating that people of all age groups and both genders are well represented within the cycling population, even where households have access to a car.

In South Cambridgeshire, the percentage of people cycling to work is 7.6% which is the highest level of cycling in any rural district in England. We want to continue to build on this level of usage.

Cycle Cambridge

In 2008, Cambridge was awarded National Cycling Town status (Cycle Cambridge) which resulted in £7.2 million for cycling improvements in Cambridge and its surrounding villages to March 2011. The programme combined infrastructure and information improvements. The Cycle Cambridge project delivered a number of new cycle routes in the Cambridge area which are being used by both commuters and leisure users. Examples include improvements to Hills Road bridge, new cycle lanes on Gilbert Road and the off road cycleway alongside the A1307 from Babraham Park & Ride to Wandlebury.

In August 2013, we were successful in securing £4.1 million of investment from the Department for Transport's Cycle City Ambition Grant to be spent by March 2015, to achieve a transformational increase in the level of cycling in the Cambridge City Region. This funding complements the local contribution of another £4.1 million from Cambridgeshire private and public sectors and the improvements already made under the Cycle Cambridge programme.

Construction of the Swavesey to Buckingway Business Park cycle route

The bid for the Greater Cambridge Cycle City project (GC3) was developed with the Cambridge City Region partners, including Cambridge City Council, South Cambridgeshire District Council and Cambridgeshire Public Health. Although the DfT grant funding ceases in 2015, the GC3 project will continue beyond this point to achieve the long term cycling ambition in Cambridgeshire.

Examples of projects already being delivered are the new foot and cycle path alongside the A505 linking Granta Park, a major employment park, with Sawston and onwards to Whittlesford rail station; and a new off road cycle path linking Wandlebury to Babraham Research Campus, providing a complete link from Babraham Road Park & Ride site.

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. Measures to manage demand aimed at reducing 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 and GC3 projects to expand the cycling culture, to ensure levels of cycling in new developments and surrounding villages match existing levels in central Cambridge.

Introduce measures to manage demand 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 techniques to manage demand in order to have a notable effect. Further information on the techniques that we will use to manage demand is given in Challenge 1.

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

The responsibility for public health in Cambridgeshire transferred from the local NHS based Primary Care Trust (PCT) to the council on 1 April 2013. The Public Health service is concerned with understanding the health, wellbeing and care needs of our local communities and ensuring that 'health inequalities' are tackled by improving the health of the poorest members of our community.

We will continue to work with colleagues in the health sector to promote the health benefits of active modes of travel, particularly walking and cycling. The NHS[15] strongly endorse walking and cycling and state that '*regular walking has been shown to reduce the risk of chronic illnesses, such as heart disease, type 2 diabetes, asthma, stroke and some cancers*'. 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.

NHS Choices website – Benefits of cycling

[15] See http://www.nhs.uk/Livewell/getting-started-guides/Pages/getting-started-walking.aspx and http://www.nhs.uk/livewell/fitness/pages/cycling.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. As set out in The Public Health Outcomes Framework for England 2013-2016, a specific indicator “Fraction of mortality attributable to particulate air pollution” is monitored and reported on and the profile of poor air quality and its impacts on health are being more widely reported. In April 2014 Public Health England published Estimating Local Mortality Burdens associated with Particulate Air Pollution which gives estimates of deaths (257 per annum in Cambridgeshire) based on modelling of $PM_{2.5}$ air pollution.

Smarter Choices

Smarter Choices are measures that aim to increase sustainable travel and reduce carbon dioxide emissions and increase active travel and improve health 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 Challenge 1.

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
- Promotion campaigns
- Car clubs and car sharing
- Technology such as electric bicycles, cars and buses
- Travel planning
- Smarter working and living (reducing the need to travel)

For Smarter Choices measures to have the greatest effect, the benefits need to be 'locked in' with other sustainable transport infrastructure and 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 national pilot project run by the Department for Transport 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 and our own local monitoring data 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.

Local Sustainable Transport Fund

Cambridgeshire County Council was awarded £5 million from the government's Local Sustainable Transport Fund (LSTF) in May 2012 to reduce congestion and help improve journey choices.

Smarter Choices work is heavily embedded in our LSTF programme. Examples of some of the projects completed or underway include:

- The installation of electric vehicle charging points such as at St Ives Park & Ride
- Funding Bike It officers in schools to promote safe cycling
- Supporting school travel plans and school to school travel plan mentoring programme
- Supporting "Park that bike". A community cycle parking scheme that will provide 164 cycle parking stands
- Door to door personalised travel planning rolled out in Ely, Huntingdon, Godmanchester and St Ives

Bike It school event

Since this is a continuously evolving 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, the East of England Travel Planners Forum and Ways to Work, 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:

- Car clubs - membership schemes which operate in a similar way to car hire
- 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. Zipcar with 19 cars located in and around the city.

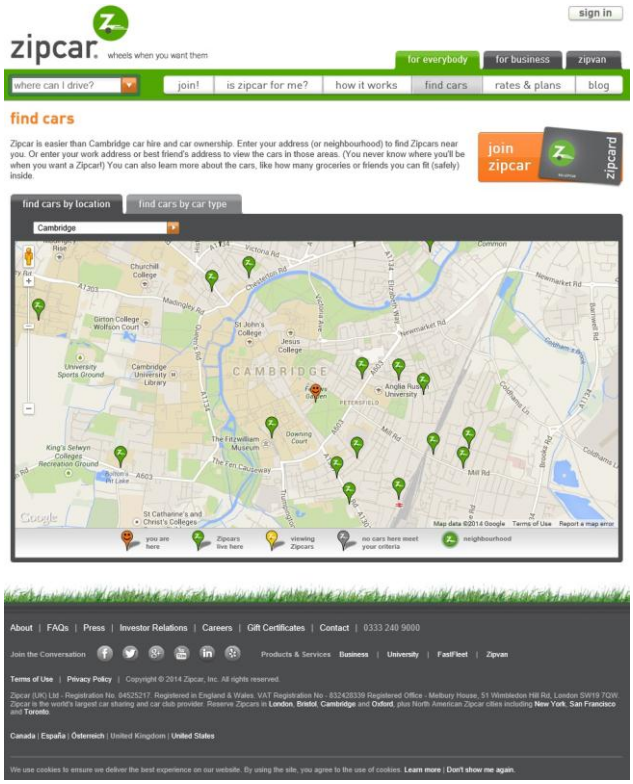
In partnership with the District Councils and operators, we will continue to support the operation and expansion of car clubs in line with demand, particularly in new developments, through negotiations with developers. Car clubs are also encouraged for private businesses, as well as private memberships, 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.

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 Travel for Work Partnership promote the CamShare programme in Cambridgeshire which provides a free online matching service to encourage car sharing by connecting people who are making similar journeys. CamShare is also promoted for 'private business groups' to encourage car sharing with colleagues to a place of work. Promoting car sharing is an important element of this strategy.

Zipcar in Cambridge

To use a Zipcar vehicle you need to register as a member and can then book a car, either online, by app on a smartphone or by telephone. Members are issued with a membership card which the user swipes across a reader on the windscreen; the keys are kept in the glove box. At the end of a trip, the car must be returned to the same bay, the keys returned to the glove box and the car locked with the membership card. Hiring a car includes fully comprehensive insurance, fuel for up to 60 miles a day. 19 vehicles, including a van at Cambridge railway station are available for hire in locations across Cambridge including:



- Cambridge Railway Station
- Russell Street
- Wolfson College
- Sleaford Street
- Botanic House

For further information see the Zipcar website.

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 for much new development, are valuable tools which facilitate and encourage options for people to change their travel behaviour away from 'drive alone' journeys 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 through the Cambridgeshire Travel for Work Partnership, Local Sustainable Transport Fund (LSTF) programme and Road Safety team working with schools, we will continue to implement and support travel plans.

There are several types of travel plan, area-wide/mixed-use, personalised, residential, school and workplace. Each type of travel plan typically contains a range of possible measures, such as:

- Travel information packs
- Free or discounted travel passes, bicycle

- A site Travel Plan Coordinator
- Cycling and Walking Buddy Groups
- Car and bicycle pool schemes
- Car clubs and car sharing schemes
- equipment, etc.
- Home working and home deliveries
- Cycle training and parking facilities

Personalised travel planning

Personalised travel planning (PTP) aims to reduce single occupancy car use by discussing journeys and travel habits with individuals. Tailor-made travel plans are then produced for individuals highlighting, giving information on, and providing them with incentives to experiment with new transport modes that will hopefully then become a continuing travel choice. It can cut car driver trips and increase sustainable travel. In South Cambridgeshire, a pilot personalised travel planning project was carried out in 2008 in Orchard Park, a new development on the northern fringe of Cambridge. As a result of this intervention, 35% of respondents reduced the number of single-occupancy car trips they made.

These results supported the rolling out of personalised travel planning through our LSTF programme. The SmartTravel Cambridgeshire programme was trialled in Ely in 2013 where 76 per cent of respondents said the project made them more likely to travel more sustainably. Travel planning advisors visited households across Huntingdon, Godmanchester and St Ives in April 2014, where residents were offered one-to-one advice and information about walking, cycling and public transport in their area.

Personalised travel planning is generally most effective where there is good public transport, because attractive alternatives to driving are 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. Personalised travel planning will be promoted in new residential developments to help the new residents who have to decide how they will travel to make as many sustainable choices for those trips as possible. Funding for this work will be secured from developers.

Residential travel planning

A residential travel plan (RTP) is a package of measures designed to increase the sustainable travel choices available at a new residential development. RTPs are likely to form a constituent part of area-wide/mixed-use travel plans (see below). They help reduce the traffic generated by the new site, improve accessibility, enhance social inclusion, enhance the attractiveness of the location 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; RTPs will often include a personal travel planning element.

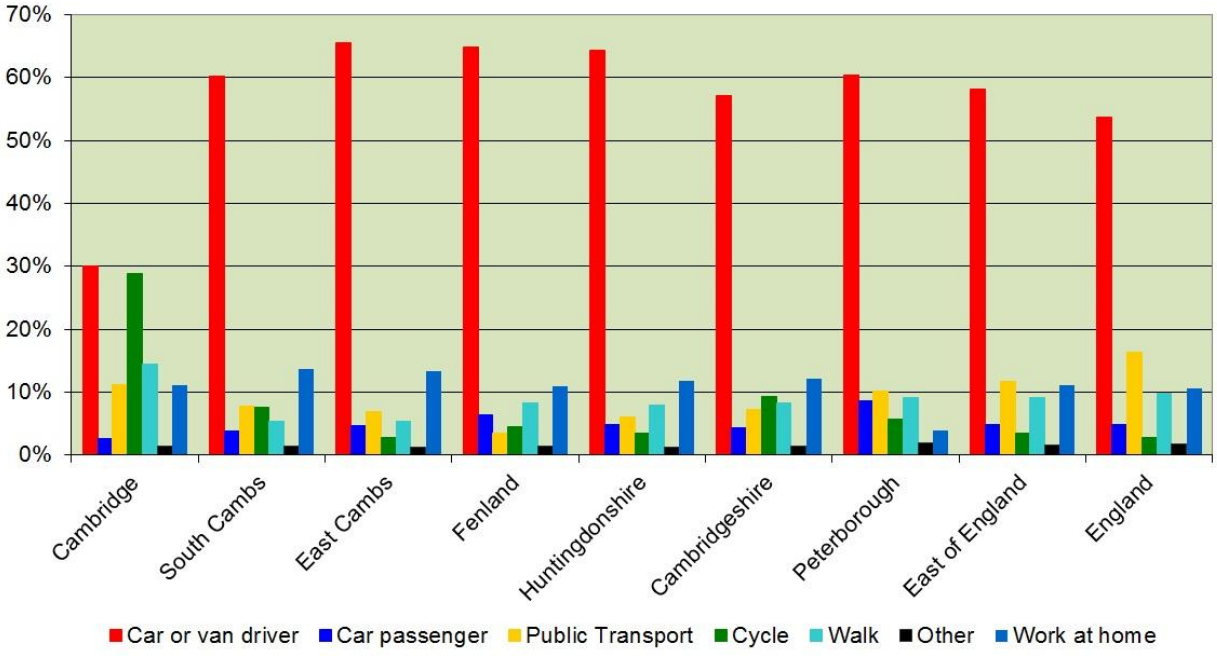
School travel planning

The school run is a significant contributor to peak time congestion, particularly in urban areas. School travel plans 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.

The challenge for this strategy is to continue to promote the importance of implementing, monitoring and updating school travel plans as new pupils join the school.

Workplace travel planning

Workplace travel plans aim to encourage and facilitate more sustainable and active travel to, from and for work to employees and to site visitors. Depending on the nature of the work that takes place on site they can also cover deliveries both from and to site. Well written and well implemented workplace Travel Plans have an excellent track record of reducing car use, increasing public transport use and active travel modes, enhancing social inclusion, improving staff recruitment and retention, bringing financial savings and reducing noise, congestion and pollution generated by the site. 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.



Travel to Work by mode, 2011 census

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.

The Travel for Work Partnership

In Cambridgeshire, the County Council and the district councils provide support to the Travel for Work Partnership (TfW). TfW was originally set up to encourage employers to join its employer network and to voluntarily develop and implement travel plans At the time of this LTP refresh TfW's network consists of 173 employment sites (including many of the county's science and business parks) together employing 75,500 commuters.

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.

Since the start of our LSTF programme in 2012 TfW has received additional resource to work with employers in two congested transport corridors. As a result TfW now has more staff and provides grants for on-site sustainable transport infrastructure and to fund promotional events.

Also as part of LSTF, TfW is establishing a system that will embed Travel Plans into the County's planning systems. This includes providing a Travel Plan Guidance document; pre-application advice to developers; travel plan evaluation and travel plan monitoring. As part of their planning agreement, some new developments will also fund TfW to work outside the site to encourage sustainable transport options. By 'saving car driver journeys', they free up capacity that helps make their new sites more viable in transport terms.

Additionally the developers of phase 1 of Northstowe new town have funded the County Council via planning contributions to allow TfW to implement the town's area-wide travel plan.

Travel Plan Plus Project

In 2008, TfW established the UK site of the EU funded Travel Plan Plus project. The project set up four major area-wide travel plan networks around Europe, and aims to reduce transport's contribution to greenhouse gas emissions.

In Cambridge, this project has focused around the Science and Business Park area, linking three major business parks, a large solicitor's offices and the Cambridge Regional College. The project has had great success in raising awareness of, and encouraging a shift towards, the sustainable transport choices available to this area that suffers significantly from traffic congestion. TfW has staff located in the TP+ who run a Commuter Centre, an electric pool bike scheme, run major area-wide events on site and provide support and expert advice to encourage the uptake of workplace travel plans. This project has already seen significant shifts away from single-occupancy car use and particularly towards cycling and public transport

The project is now self-funded, with financial contributions being made by local landlords and employers. With the opening of the new Science Park Station in 2016 and the likely re-development of the area around the station, TP+ is well placed to help ensure this becomes an exemplar area for sustainable travel, and for area-travel plans.

TfW is also planning to offer its services on the open market to developers to provide travel planning services, including implementation of on-site Travel Plans. The business case is being developed at the time of this LTP re-fresh

As a result of TfW's expanding role at the time of this LTP re-fresh it is undertaking a re-branding exercise and it is most likely to adopt the over-arching brand of Travel for Cambridgeshire, which will include sub-brands for example, Travel for Northstowe, Travel for Work, Travel for Leisure.

Travel Plan Guidance

At the time of this LTP refresh the Cambridgeshire Travel for Work Partnership is preparing a travel plan guidance document. This will help developers produce the best travel plan for their development and district planning authorities to set out expectations of travel plans for all types of new developments. The Guidance will not only advise what should be included in the Travel Plan but also the monitoring and long-term sustainability requirements

Area-wide / Mixed-use travel planning

Many new developments in Cambridgeshire will consist of buildings and environments that will have a variety of functions (for example a residential development that includes a business area and a school). Through the planning system the County Council and the Travel for Work Partnership (TfW) are encouraging developers to provide an area-wide approach to travel planning in such developments. In this way travel initiatives can be co-ordinated and monitored across a variety of constituent developments on site. These area-wide or mixed-use (also known as 'umbrella') travel plans provide initiatives that will be available to all travellers to and from the development (for example. pool bikes, travel discounts, travel information website). There will remain the need for individual travel plans to sit beneath the area-wide travel plan. In many cases it is envisaged that the development can provide a travel plan coordinator for the whole development.

TfW, who have excellent experience of successful area-wide travel plan implementation at its Travel Plan Plus project in the Science/Business Park area of Cambridge, will coordinate, support and monitor a network of Cambridgeshire area-wide travel plans. Additionally TfW is also able to implement the area-wide travel plans and provide the TP Coordinator for new developments; this is happening at phase 1 of the new town of Northstowe).

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 remotely for some / 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 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. However, the County Council recognises the need for investment in digital communication and infrastructure and the positive impact this could have on reducing the need to travel. In recognition of this the County Council has a Smarter Business Programme and Customer Service Strategy designed to aid digital delivery.

Other policies and initiatives that impact on this challenge

- National Planning Policy Framework (NPPF)
- Planning Practice Guidance
- Cambridgeshire Districts' Local Plans
- Travel Plan Guidance (still in draft)

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.

Embankment slipping at Sixteen Foot Bank near Stonea in Fenland

- 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
- 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 across 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. We are committed to ensuring that the potential impacts of climate change on our service delivery are understood and appropriate responses are developed.

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.

Flooding on the A1123 at Earith

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

Planting specific species that would be adaptive to changing conditions may be appropriate in future

Maintenance

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 Policies 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. In the future this could include updating elements of the policy in relation to biodiversity such as planting specific species that would be adaptive to climate change. 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 to take account of the likely future impacts of climate change. In addition, we will implement sustainable construction practices for new infrastructure.

Other policies and initiatives that impact on this challenge

- Adapting to climate change policy
- UK Climate Change Risk Assessment
- National Adaptation Programme
- EU Adaptation Strategy
- Land use and planning policies such as Local Plans
- 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
- Support Cambridgeshire Future Transport programme in delivering innovative public transport solutions
- Draw up a district based transport strategies 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
- 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.

The Community Infrastructure Levy (CIL) which was introduced by the Planning Act 2008 is a levy that local authorities can choose to charge on new developments in their area. The money can be used to support development by funding infrastructure such as

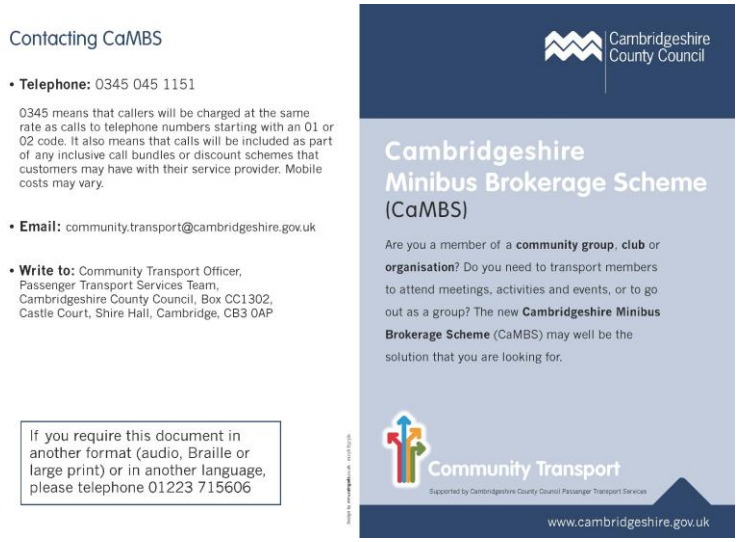
Education, Transport, Libraries and Waste. Further information on CIL can be found in Challenge 2.

Planning Obligations can still be collected through Section 106 agreements however their use will be greatly restricted. Authorities that have introduced CIL are unable to pool more than 5 S106 agreements; those authorities that haven't yet introduced CIL will be unable to pool more than five agreements from April 2015. In most cases S106 will be used for specific infrastructure on large development sites.

Support Cambridgeshire Future Transport programme in delivering innovative public transport solutions

As stated in Chapter 3, commercial routes are not viable in all areas of Cambridgeshire, particularly those lightly used routes which operate in rural areas, evenings or at weekends.

The Cambridgeshire Future Transport (CFT) programme is a joint initiative with partners from across Cambridgeshire and Peterborough working together to find solutions to Cambridgeshire's transport and accessibility challenges. Our partners include local authorities, health services, community groups and transport providers. To fund the solutions, Cambridgeshire County Council has allocated funding which over the next two years increases to a total of £1.5m per year across the county.



Cambridgeshire Minibus Brokerage Scheme (CaMBS) Leaflet

How the funding is invested is decided through a programme of community engagement. CFT works with local members, communities, parish councils, businesses and operators to understand local issues and to come up with local solutions. Types of alternative transport schemes include:

- Car sharing – private
- Social car – volunteer
- Taxi vouchers
- Taxi scheme
- Parish owned car
- Travel clubs
- Community bus service
- Community bus service – private
- New Dial-a-Ride service
- New community transport scheme
- Franchise
- Subsidised services
- Rail
- Demand responsive transport (DRT)

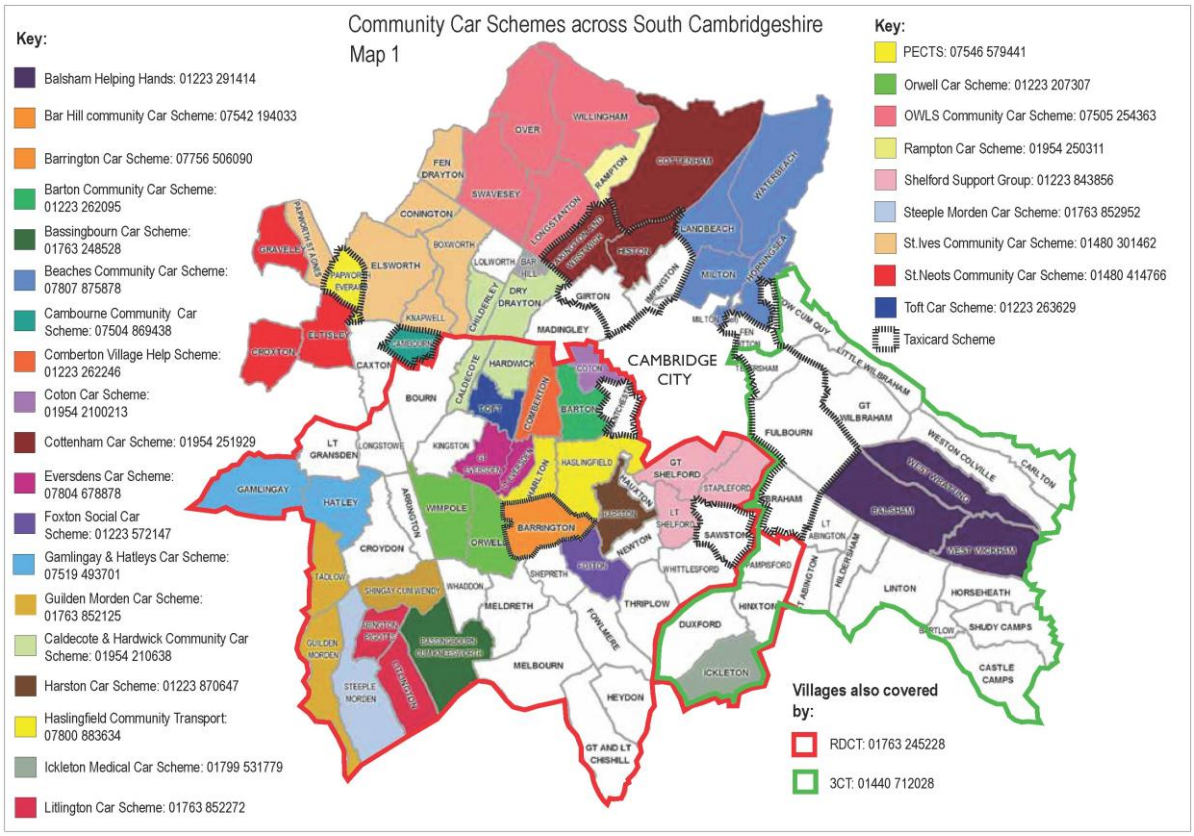
Demand responsive transport (DRT) refers to non-traditional bus services that match services more closely to customer need. Services can either run to a timetable or be entirely matched to demand. The CFT programme will look to introduce these services where local evidence demonstrates that they are the right solution, as in the examples noted below.

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 with 102 parishes and a number of smaller settlements. In many parts of the district public transport is good, especially along the main roads or on the rail network.

However, there are several villages where access to a bus or train service is poor or absent; for example only six villages are served by a railway station. 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 made Community Transport one of its priorities and the Local Strategic Partnership and the Transport and Access Subgroup developed a Community Transport Strategy and Action Plan to support this work. This strategy built upon the foundations of the Accessibility Strategy in Cambridgeshire's second LTP, which focussed on areas such as Balsham, where public transport is limited.



Case Study: DRT to the west of Cambridge

Through the CFT programme, DRT services commenced in June 2014 on service 28 covering 16 parishes west of Cambridge and south of the A428 in South Cambridgeshire and Huntingdonshire. Service 28 offers scheduled services at times of peak demand including a Thursday (market day) service between Cambourne and St Neots, and operates in a DRT basis at other times. The C2 service which runs to a fixed schedule between Hatley and St Neots on Thursdays will also be available to provide additional capacity. Working with the South Cambridgeshire District Council and local communities, DRT will be explored in other areas of the district.

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 LTP 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.

Ely and Soham Dial-a-Ride minibus outside Ely Cathedral

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 a large distance 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 4.6 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.

From 1 April 2011 responsibility for administering concessionary fares transferred from the District Councils to the County Council. Pass holders are entitled to free travel on bus

The right to free travel before 09:30 for those registered blind or partially sighted will be retained as well as for bus travel in isolated areas. The scheme will be reviewed on an annual basis, providing the opportunity to vary the scheme to reflect the changing environment.

In 2009, the County Council introduced the Cambridgeshire Minibus Brokerage Scheme (CaMBS) which is a vehicle-sharing scheme that enables community groups, clubs and not-for-profit organisations to use accessible and affordable minibuses. CaMBS has over 50 minibuses available for hire and nearly all are wheelchair accessible. The scheme can supply drivers or groups can (subject to training) use their own drivers. Hiring a minibus will depend on availability. Normally vehicles can be hired at any time and for any reasonable length of time; part-day, day, weekend or for even longer.

Figure 4.6. 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	4	31	1	3	4		
East Cambridgeshire	3	4	1	2			
Huntingdonshire	1	15	1	2			3
Fenland	1	13	1	1			

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.

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. Full Council agreed, in February 2014, to the setting up of a new £500,000 funding pot to be spent on public transport with an emphasis on community transport. A cross-party group is being set up to manage the work that oversees the

spending of these new funds. The funding represents a significant opportunity to re-energise the provision of community transport services in the county and should offer medium term stability to the current providers.

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

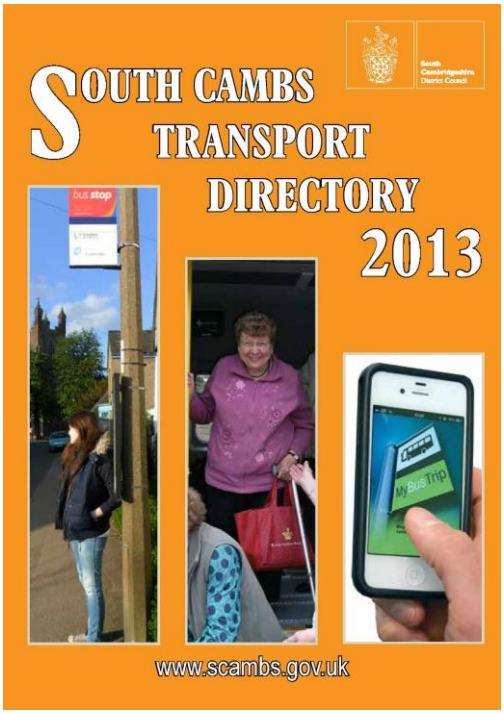
- Recognise and support Community Transport as a key partner in helping to fill the gaps in public transport provision throughout the county offering flexibility and choice.
- Develop new and innovative schemes in partnership with the District Councils, CT operators and other stakeholders.
- Involve community transport operators in Cambridgeshire Future Transport solutions.
- Work with community transport operators to develop Business Plans and Grant Funding Agreements, including looking to hold 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.

Huntingdonshire District Council and Cambridgeshire County Council have made considerable inward investment to maintain Community Transport and Ring & Ride services across Huntingdonshire. A new Community Transport scheme called HACT (Huntingdonshire Association of Community Transport) has recently been set up. Although it is a separate company from FACT (Fenland Association of Community Transport), it is run by the same staff and Board.

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

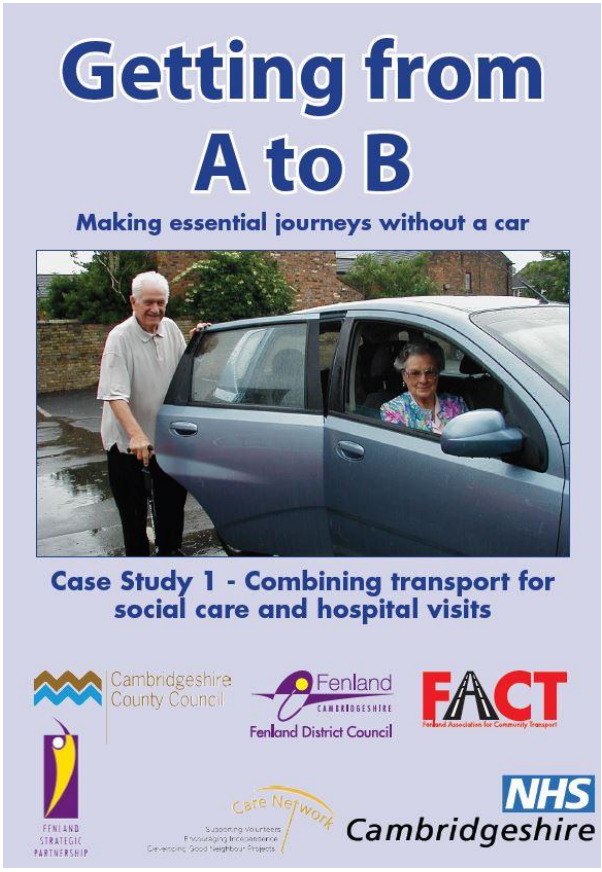
During the period of LTP3, we have greatly developed and improved the quality and availability of our public transport information on our website. However, there is still scope to make further improvements and to utilise electronic media such as mobile phone texting services and Real Time Passenger Information technology.

Further information on our strategy to improve public transport information can be found in 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.



South Cambridgeshire Transport Directory 2013

What's been happening in Fenland?



The Fenland Strategic Partnership's Transport and Access Group (TAG) continues to be proactive in local transport matters as well as adding to their substantial evidence-base on local accessibility issues, working in partnership with public and voluntary sector organisations. The Transport and Access Group works 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

Further information can be found at: www.fenland.gov.uk/transport.

Examples of the TAG's achievements are set out below.

- In 2011, the TAG worked with GP Surgeries and Hospitals in Fenland to ask patients about how they access medical services and in 2013, an audit of car and cycle parking facilities was undertaken which confirmed the experiences from the 2011 survey work.
- In February 2012 the Fenland Transport Directory was launched with contact details for taxi operators, bus services, train services, community car schemes and dial a ride. To date around 3,000 copies of the directory have been distributed.
- The Fenland Rail Development Strategy 2011 – 2031 was adopted by Fenland District Council's Cabinet in April 2012. This includes policy approaches for rail, local requirements for stations and services and a Stations Investment Plan
- The Hereward Community Rail Partnership was launched in October 2012 and its website launched in January 2014.

Draw up a district based transport strategies 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 transport strategies in East Cambridgeshire, Fenland and Huntingdonshire to address local transport issues. These transport strategies would encompass the existing market town transport strategies and sit alongside the Transport Strategy for Cambridge and South Cambridgeshire under this LTP. The development of these district-based transport strategies will begin in 2014.

The LTP2 Accessibility Strategy will be superseded by these district based transport strategies. The new strategies will build upon the Accessibility Strategy (and its Action Plans) which were limited in their coverage to nine priority wards which were identified at a specific point in time. We will ensure that our district-based transport strategies are flexible enough to cover the different needs of different rural areas, and are dynamic documents that can address changing needs as they come forward. Addressing those at risk or affected by social exclusion issues will be key to these new strategies.

The district-based transport strategies will be developed to enable measures to be delivered in the short, medium and long term. The strategies will be developed in partnership with the district councils and other partners to ensure the varying needs of rural areas are fully reflected. The strategies 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 to travel to users – for example mobile healthcare units, or making use of internet-based shopping delivery services.

The Making Assets Count (MAC) Programme was established in 2010 to bring public sector organisations together in a partnership that uses their combined property portfolio in a more efficient and effective manner. The primary drivers for MAC are to deliver better public services for communities and reduce the cost of property occupation. Public sector partner organisations include Cambridge City Council, East Cambridgeshire District Council, Fenland District Council, Huntingdonshire District Council, South Cambridgeshire District Council, Cambridgeshire County Council, Cambridgeshire Constabulary, Cambridgeshire Fire and Rescue Service and Health services, Job Centre Plus, Highways Agency and the Homes and Communities Agency.

In August 2013, the Chatteris Community Hub was opened. The Hub brings together Fenland District Council's One Stop Shop and the County Council's Chatteris Library. The public now have one place to go for help with anything from benefits advice to bin collection information and will benefit from longer combined operating hours. Both Councils have therefore also reduced their costs as a result of the hub. Community Hubs are expected to be the ‘face to face channel’ for information about all Council services and

further hubs are also being developed in Cambridge, Huntingdonshire and South Cambridgeshire.

The guiding principles for Community Hubs are:

- Services shaped by the community.
- A modern and accessible approach to local public services
- Sustainable public services, which provide long-term value for money.
- A gateway to learning, knowledge and information, contributing to the local economy.
- Create savings for the Council partners and wider public services.

As mentioned in Challenge 2, Connecting Cambridgeshire is a programme rolling out superfast broadband across the county. A great deal of information is now available online rather than needing to use more traditional forms of communication or visiting an office or Council building, so enabling quick and reliable internet access is vital to ensure a transition to accessing information remotely. More traditional forms of service provision are still necessary for some functions, and programmes such as MAC can help to streamline public sector services.

Promote sustainable networks for walking and cycling

The provision of sustainable networks for walking and cycling are 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 in Challenge 3 and will be implemented through our LTTS, TSCSC and emerging district-based transport strategies.

The Connecting Cambridgeshire website

Other policies and initiatives that impact on this challenge

National planning framework/policies

The National Planning Policy Framework (NPPF) was adopted by government in 2012 and directly impacts on this challenge. The NPPF recommends 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.

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 road 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
- How to safely accommodate higher than average, and increasing, levels of cycling.
- The need to develop an effective shared approach with partners such as Public Health and NHS.

What we will do to overcome these barriers

Over the course of LTP1 and LTP2, excellent progress was 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 work with the Police regarding safety camera enforcement at sites where this is an appropriate solution to address road traffic casualty problems
- 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 2.

- **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.

The A505 / Hunts Road roundabout to the north of Duxford, which was implemented as a major safety scheme to address an accident cluster. Due to continued investment in addressing safety at sites where clusters occurred over 30 or more years, safety schemes of this scale are now needed far less frequently.

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.

The national Strategic Framework for Road Safety was published in May 2011. It seeks to remove targets and performance frameworks to create more room for local flexibility and innovation along with private sector and third sector delivery of road safety initiatives. The government's key themes for road safety are:

- Making it easier for road users to do the right thing and going with the grain of human behaviour
- Better education and training for children and learner and inexperienced drivers
- Remedial education for those who make mistakes and for low level offences where this is more effective than financial penalties and penalty points
- Tougher enforcement for the small minority of motorists who deliberately chose to drive dangerously
- Extending this approach to cover all dangerous and careless offences, not just focussing upon speeding
- Taking action based upon cost benefit analysis, including assessing the impact on business

- More local and community decision making from decentralisation and providing local information to citizens to enable them to challenge priorities; and
- Supporting and building capability by working with the road safety community on better tools to support road safety professionals.

Figure 4.7 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

Over the period of this Plan, we will increasingly look at partnership funding, sponsorship, grants and where appropriate charging for services to assist delivery of road safety education initiatives.

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

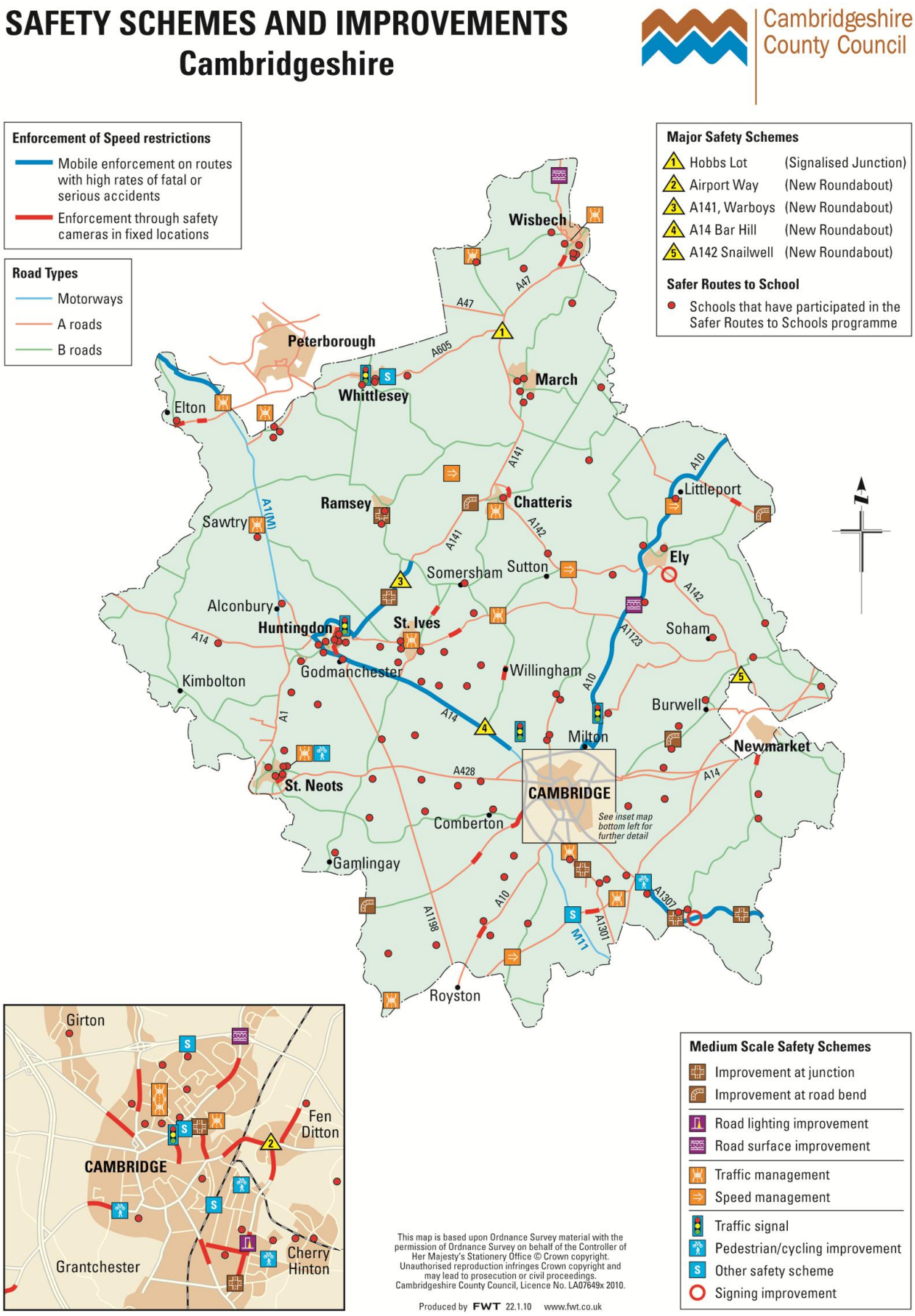
We will continue to support the delivery of cycle training for both adults and children so that our road users have the necessary skills, knowledge and confidence using on and off road cycle facilities.

There are two cycle training programmes currently being rolled out in Cambridgeshire. We are currently benefitting from DfT grant funding for Bikeability training for primary school aged children, which is being delivered on behalf of the County Council by Outspoken and Witchford School Sports Partnership. The second programme is a DfT Local Sustainable Transport Fund initiative being delivered by Sustrans on our behalf, called Bike It. The Bike It programme started in Cambridgeshire in January 2012. Officers deliver a planned programme of activities designed to bring about long term behavioural change, with the creation of the legacy built into the core of the project. Bike It activity within our current LSTF programme is demonstrating more than a 20% shift away from car as the mode of transport to and from school.

Our cycle training programmes cater for:

- Children in Years 5/6 at Primary School on Bikeability scheme (Level 1 and 2) basic on-road cycle training.
- Children in Years 8/9 at Secondary School on Bikeability scheme (Level 3) advanced on-road road cycle training courses, if requested by schools.
- Adults are signposted to local providers of cycle training.

Figure 4.7. Safety schemes and measures implemented in Cambridgeshire since between 2001 and 2010



The County Council currently trains approximately 4,000 primary school children to the equivalent Bikeability Level 2 standard through the existing training courses. This represents about 50 – 60% of the eligible pupils countywide. Encouraging children to cycle supports the strategies and objectives of this LTP for sustainable travel and health improvement.

Child Pedestrian and Scooter Training Services

For Primary School aged children, the Road Safety Team trains volunteers to deliver practical pedestrian skills using local routes and playground-based scooter training.

In 2013/14 Cambridgeshire County Council's Road Safety team launched WalkSmart and ScootSmart training. This training offers all Cambridgeshire schools the opportunity to deliver pedestrian and/or playground scooter training for Year 3/4 pupils. The training is delivered in schools by volunteers (supported by Road Safety Officers) and is designed to raise children's observation and awareness skills whilst crossing the roads with an adult or scooting on the pavement. Uptake has been strong; the first year target of 500 pupils trained was exceeded in the first 6 months of operation. As the project matures and the number of trained volunteers is increased the number of children who receive this training each year will continue to grow.

Driver and Rider Training

Addressing adult driver and rider behaviour, through targeted campaigns and initiatives, will continue to be promoted during LTP3.

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.

Our Road Safety team promote the scheme BikeSafe (and ScooterSafe). BikeSafe is a police led motorcycle project that is run by most forces throughout the UK. The main aim is to reduce the number of bikers being hurt on the roads by improving skills, knowledge and hazard awareness. Other advanced driver/rider training schemes which are promoted by the County Council, include:

- Enhanced Rider Scheme
- IAM
- RoSPA
- Pass Plus

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 diversionary courses will be delivered in Cambridgeshire, managed by Cambridgeshire Constabulary:

- Driver Alertness Course (NDAC) – following a driver's involvement in a road traffic accident and facing likely Police prosecution for driving without due care and attention;

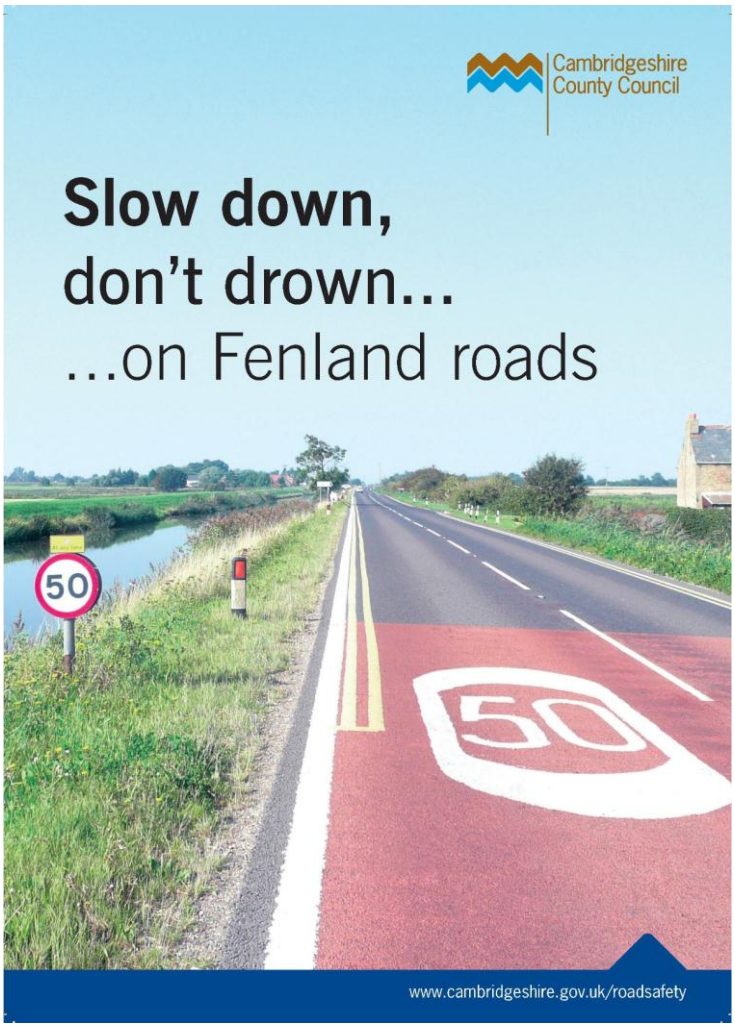
- RIDE Motorcycle Courses - following an offence committed on a motorcycle, the course is designed as a pre-crash preventative measure but is also used as a post-crash measure.
- Speed Awareness Course (NSAC) – following a speeding offence for all speed bands and classes of vehicle speeds except 20 mph zones.
- Driving 4 Change (D4C) – following selected road traffic offences where a skills deficit is identified.
- What's Driving Us? (WDU?) – following selected road traffic offences e.g. using a mobile phone whilst driving or jumping a red traffic light.

Publicity

Our campaigns focus on the following priorities based on local and national casualty and offence data:

- Drink/drug driving
- Speeding
- Young drivers
- Motorcycling
- Cycling

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. This will predominantly be conducted through digital channels with signposting in other media. Anyone can keep up to date with the council's road safety campaigns via Facebook and Twitter.

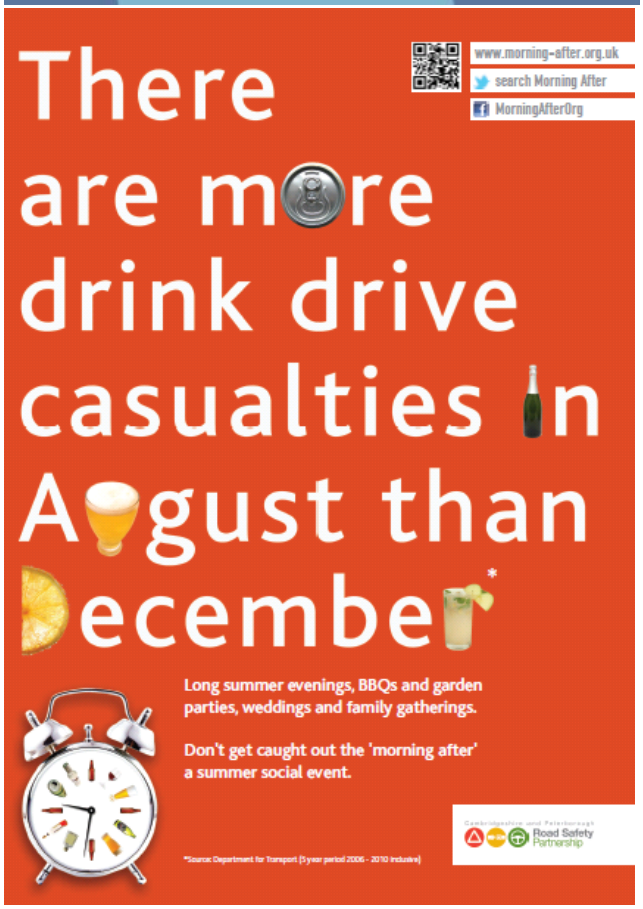


Road safety campaign addressing speeding on roads next to Fenland rivers and drains

Much of our campaign work will be coordinated with timely, data-led Police enforcement activity. Campaign and activity information can be found at:

- Think! Road Safety
- Road Safety GB
- Cambridgeshire and Peterborough Road Safety Partnership
- Twist
- Morning After

Below are examples of previous successful publicity campaigns.



Examples of successful road safety 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, including classroom and practical training for both employers and employees.

Figure 4.8 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 4.8. 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 (23.4%)	628 (13.1%)	3,059 (63.6%)	4,812
2008	1,047 (22.7%)	651 (14.1%)	2,921 (63.2%)	4,619
2009	864 (19.7%)	527 (12%)	2,988 (68.2%)	4,379
2010	868 (21%)	558 (13.5%)	2,709 (65.5%)	4,135
2011	895 (22.5%)	462 (11.6%)	2,627 (65.9%)	3,984
2012	779 (20.2%)	542 (14.1%)	2,527 (65.7%)	3,848
2013	788 (22.8%	489 (14.2%)	2,173 (63%)	3,450
Total	**6,366 (21.8%)**	**3,857 (13.2%)**	**19,003 (65%)**	**29,226**

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 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 Partnership's Strategic Board uses information collected and reported in a Joint Casualty Data Report that identifies emerging priorities in road safety. Current target groups include:

- Young Drivers
- Motorcyclists
- Speed Reduction
- Work-related Road Safety
- Vulnerable Road Users (i.e. pedestrians and cyclists)

As far as possible, the CPRSP activities are aligned with National road safety publicity run by the Department for Transport (DfT) Think! campaign and the TISPOL Police enforcement calendar.

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 is dependent upon alternative funding for the Partnership, either through each individual partner's resources or from external sources.

Whilst a number of projects have been, and are being, designed to provide sustainable road safety activity requiring less ongoing revenue funding (for example, SpeedWatch, driver training and the Fire and Rescue Service road safety education initiatives), this approach is not possible for a significant proportion of road casualty prevention activity.

With casualties from road collisions in Cambridgeshire costing £167 Million per annum, investment in road safety presents a significant 'invest to save' opportunity for the county, and the country as a whole.

SpeedWatch

SpeedWatch is an initiative set up by CPRSP partners including the Cambridgeshire Police. It allows concerned communities to get actively involved in monitoring and reporting the speeds of vehicles travelling through their neighbourhood. SpeedWatch is used in areas where speeding has been identified as a priority by the local community. It aims to help 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.

SpeedWatch at Bury

Public perceptions of speeding often do not correspond with the 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

In 2013 there were 1,475 accidents that resulted in injury reported on Cambridgeshire's roads, in which 305 casualties were killed or seriously injured. It is estimated that injury accidents on our roads cost £125 million in 2013, but the impact of these tragedies on families and communities is impossible to quantify.

Since our baseline of 2005-2009, across Cambridgeshire the number of people killed or seriously injured has dropped by 26%, and slight injuries have reduced by 34%. 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.

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 peak age for car driver and car passenger casualties is 18. The peak for motorcyclists is aged 16-17.
- **Work-related:** Nearly one half of all injury accidents occur during journeys undertaken to/from or as part of work.
- **Motorcycle accidents:** Motorcyclists in Cambridgeshire account for a disproportionately high percentage of overall deaths and serious injuries.
- **Speed:** National research estimates that excess speed is a contributory factor in a third of all fatal accidents.
- **Rural roads:** Accidents on rural roads are a significant issue in Cambridgeshire. In 2013, 54% of all casualties, 64% of serious injuries and 89% of deaths occurred on rural roads, figures which are much higher than the average for Great Britain. Above average traffic density on Cambridgeshire's rural roads is a major factor in the high per capita casualty rate in the county, which is particularly poor for the rural district of Fenland.
- **Pedal Cycle Accidents, particularly in Cambridge City:** Pedal cyclists account for over one half of all casualties injured on the roads in Cambridge. This is related to high levels of cycling in the City.

Ride to Work event organised by the Cambridgeshire and Peterborough road Safety Partnership

The CPRSP delivers a number of projects targeting young drivers and riders, these currently include Drive 2 Arrive and the Crash Car Simulator.

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.

The Council delivers training and education activities in schools, designed to prevent child road casualties through the development of positive attitudes and behaviour relating to road use from a young age. Current activities include:

- Child car seat checks.
- The Children's Traffic Club.
- Pedestrian training.
- Scooter training.
- Bikeability cycle training.
- Safety Zones.
- Theatre in Education (TIE).

The Road Safety Team also responds to requests for advice and support relating to safety and sustainable travel issues around schools, particularly relating to parking and has developed a pack for schools to use to combat this issue.

Stop Means Stop campaign logo

School Crossing Patrol Service

Our School Crossing Patrol Service provides assistance for pedestrians at those locations where pedestrian and traffic flows warrant it and there are no crossing facilities such as Puffin or Zebra crossings nearby. The patrols operate at the start and end of the school day to help children and parents cross the road safely. Currently there are about 60 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 12 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 Road Safety Team who use information from school travel plans to effectively target child road safety interventions.

Banner aimed at parents who park or stop on 'School Keep Clear' markings

Managing safety camera sites

There are currently 37 locations enforced by speed or red-light cameras on the Cambridgeshire County road network. Peterborough City Council and Highways Agency also manage their own camera sites within the CPRSP partnership area.

In 2013 the police forces of Cambridgeshire, Hertfordshire, and Bedfordshire entered into a collaboration to share resources. This Tri-Force unit provides the enforcement operations and back office support for all 3 authorities.

Cambridgeshire County council continues to support the police in managing and monitoring camera enforcement sites and equipment, including monitoring and review of the sites bearing in mind any changes to the road, changes in traffic flow or advances in technology.

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

Targeting engineering measures to achieve the highest casualty reduction

Although the road environment itself is rarely the single cause of traffic collisions physical changes to the design of the road can in some cases reduce the likelihood of a collision, and/or reduce the potential severity of injuries. 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:** Management and maintenance of road side camera infrastructure. Joint working with the Police. Data analysis and review of sites.

- **Liaison with Highways teams:** Working with other teams in the county council to influence highways design and choice of materials so that where possible all works on the highway add to the creation of a safer road environment.

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.

Slow Down interactive junction warning signs on the A1307

However, there are places, particularly on our high speed rural roads that see high severity injuries scattered over a wider area. Route investigations and treatments aimed at longer sections of road have 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 targeted combination of engineering, enforcement, and education is now being used. It is a relatively new approach but casualty reductions for routes such as the A1307 and A1101 have been very positive.

The number of sites that can be treated each year is limited, and there are always many more schemes than the available budget. Each year potential sites are prioritised and added to the programme of planned works which is published in the Transport Delivery Plan.

A key tool for the future delivery of this strategy is be the new Market Analysis and Segmentation Tools (MAST) web based data analysis engine. It enables 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 have developed Eval-U-It, a tool to help practitioners to evaluate the benefits of education programmes.

Making safety part of all highways work

Road safety engineering may be the most obvious activity that targets engineering at improving safety on the highways but the local highways teams also make a significant contribution to safety for road users.

Maintenance work quietly improves the highway environment, by continuously reviewing materials and products to achieve better value for money and better safety and replacing older items. Over time even the smallest actions have had a significant effect. Below are just a couple of examples of how over time this can make a significant difference:

- The square metal studs that can be used to define pedestrian crossings are slippery and can be hazardous for motorcyclists and cyclists. Around 15 years ago Cambridgeshire stopped using these. Each time a resurfacing scheme came across metal studs these were removed and replaced with a small square of white lining material. Over time there were fewer and fewer of the slippery studs and today almost no sites remain with these studs.
- Large steel signposts alongside rural roads have a devastating effect if a vehicle leaves the road and strikes them at speed. Over the last decade new signpost products have been developed that can support large signs but are designed to crumple or collapse to reduce the impact and risk of injury. Using alternative materials is now a standard option when replacing larger signposts. In this way over the last 8 years the number of these large roadside hazards has been significantly reduced.

A large steel signpost of the type that are being replaced

These are just two examples, local highway teams contribute in many other ways, salting our roads in winter, fixing potholes, cutting grass verges, refreshing white lining, and selecting the most appropriate materials for surfacing to name but a few.

Safety Audits, and safety reviews.

We will continue to promote accident prevention by looking at road user safety both during the design and after construction for traffic management and engineering schemes, whether they be local authority schemes or works undertaken by private companies or developers. The aims of road safety audit are to ensure that road user safety is taken into consideration as early in the design phase as possible.

Safety Audit of any proposals on main roads 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. For minor proposals on quieter

roads and residential streets a simpler approach such as safety review may be considered more appropriate. All reviews and audits are carried out by qualified road safety engineers.

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, cycle or use public transport. 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.
- Work with public transport operators and the police to tackle crime and anti-social behaviour at stops and stations

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[16] 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

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

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.

Motorways and Trunk Roads

Congestion on the A428 as it approaches the A14 Cambridge Northern Bypass

Several major roads across our county are managed and operated by the Highways Agency as they form part of the strategic road network. These are the M11, A1, A1(M), A11, A14, A47 and A428. We will continue to work closely with the Highways Agency and neighbouring authorities 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).

Ensuring that the design of roads, paths and other transport facilities in new developments are safe, convenient and useable by all transport modes

The effective master-planning of new developments should lead to environments that discourage unsafe behaviour by transport users, and ensure that we do not see new safety problems on the local transport network with growth. A local environment that is perceived as or is actually unsafe will make it far more likely that residents and visitors will drive, to the detriment of all of the objectives of this Local Transport Plan.

We will continue to work with developers and Local Planning Authorities to ensure that safe and usable transport provision is made in new development, and that master-planning approaches have transport safety and security as key objectives.

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.

- Strategic Framework for Road Safety
- The Motorways and Major Trunk Roads Programme
- Vehicle safety standards information

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 and address 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 City and 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.
- Promote emission reduction at the Regional Freight Quality Partnership.
- To reduce overall vehicle mileage through a combination of measures to manage demand, 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 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. 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, historic environment and heritage assets. 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.

Grunty Fen

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 green space, 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. In addition, we will design works with the aim of minimising visual impacts and disruption both on the natural and historic environment, including heritage assets.

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. Where appropriate we will develop Construction Environmental Management Plans to help reduce the risk of pollution and encourage sustainable construction methods and waste minimisation.

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.

Tunnel for toads under the Busway at Histon

The Natural Environment and Rural Communities (NERC) Act came into force on 1st Oct 2006. Section 40 of the Act requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'Biodiversity duty'. This duty extends to all public bodies, including the County Council, the biodiversity duty of section 74 of the Countryside and Rights of Way Act 2000 (CROW).

The aim of the biodiversity duty is to raise the profile of biodiversity in England and Wales, so that the conservation of biodiversity becomes properly embedded in all relevant policies and decisions made by public authorities.

Having contact with nature and access to the countryside and open green space 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.

The Cambridgeshire and Peterborough Biodiversity Partnership formed in 1996. The Partnership launched a set of Biodiversity Action Plans in 2000 which are reviewed on a regular basis and guide the work that partners are pursuing. The delivery of strategic projects is coordinated by the Wildlife Trust.

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. In addition, we will consider energy efficiency as part of our maintenance practices, new road schemes, new cycle and pedestrian routes and for major scheme proposals such as Cambridge Science Park Station in order to tackle climate change. We will look to implement such new technologies if effective and financially viable.

Construction Environmental Management Plans (CEMPs) are always employed on our major transport projects. They are usually set out as a condition through the planning application or as a contract condition with our contractors, for preparation and implementation.

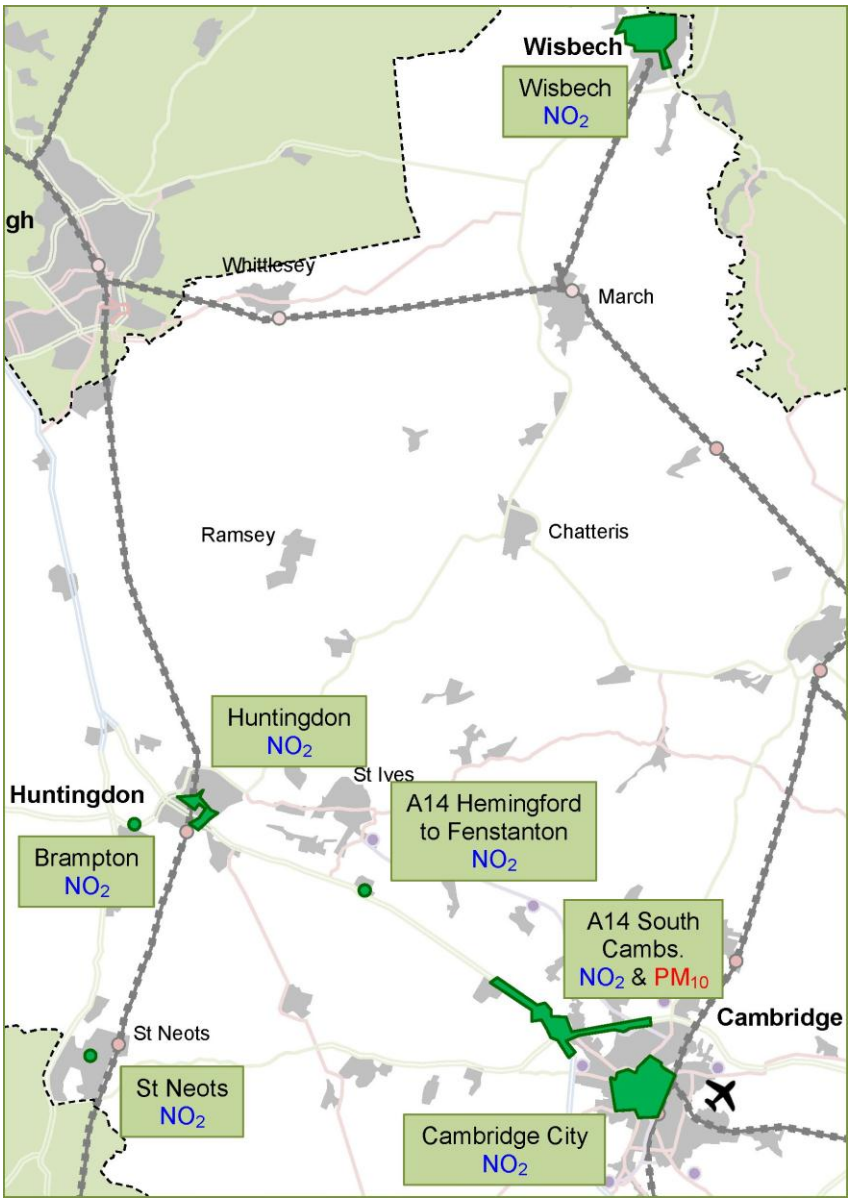
Respond to the proposals of other infrastructure providers

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 LTP 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.

Figure 4.9. Traffic related AQMAs in Cambridgeshire



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, by:

- Monitoring diffusion tube sites in all of the districts to measure NO_2
- Real-time monitoring for a mixture of pollutants in Cambridge, Huntingdon, 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. Further information on air quality around the county can be found on the city and district council websites:

- Cambridge City Council
- East Cambridgeshire District Council
- Fenland District Council
- Huntingdonshire District Council
- South Cambridgeshire District Council

Figure 4.9 shows the traffic related AQMAs in Cambridgeshire, and Figure 4.10 provides some further detail.

Figure 4.10. Traffic-related Air Quality Management Areas in Cambridgeshire[17]

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, Huntingdonshire	2006	NO_2	Vehicles
High Street and New Street, St. Neots, Huntingdonshire.	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

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 (incorporated into the Quality Bus Partnership 2010-2015) uses real bus mileage in the central part of Cambridge, with Euro standard of each bus and its theoretical emissions (based on DfT emission factors to calculate notional tonnage of NO_x and PM_{10} emitted for a fixed period). The data shows that the level of calculated emissions improvement over the period 2008-2013 has decreased significantly.

[17] Further information regarding the Quality Management Areas can be found in the Joint Air Quality Action Plan

Joint Air Quality Action Plan

A joint Air Quality Action Plan (AQAP) was developed by Cambridge City Council, Huntingdonshire District Council and South Cambridgeshire District Council. It looked 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.
- In Cambridge, levels of air pollution have not fallen as anticipated from an improving general vehicle fleet with reportedly lower emissions with each new Euro standard and specifically from improvements made in the bus fleet in Cambridge. Local research funded by Defra, based on real emissions measurements in Cambridge, indicates that the City Council must now develop new evidence-based policies to improve air quality in Cambridge.

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

- Progress on the priority action areas is reported in Huntingdonshire's annual Air Quality Reports. and in summary are:
  - Although the A14 project expected at the time of the development of the JAQAP was cancelled, the Highways Agency's new proposed scheme includes similar routing through Huntingdonshire with the associated potential benefits for air quality and the AQAPs. Huntingdonshire are working closely with the Highways Agency in an effort to maximise any available air quality benefits.
  - Air quality policies were adopted by Huntingdonshire following the development of the JAQAP.
  - The inclusion of air quality policies is proposed in Huntingdonshire's new Local Plan.
  - HDC attend meetings of the Eastern Regional Freight Partnership to raise the profile of air quality impacts from the A14 on their agenda.
  - The Busway services are well used and traffic monitoring data suggests a modest reduction in flows on the A14.

Traffic in St Neots Town Centre

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. 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 dioxide emissions.

Poor air quality in Cambridge city centre 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 and Particulate Matter 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 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.

Since 2008 all main operators have reduced calculated emissions and current emissions. By 2013, calculated PM_{10} emissions from buses had fallen by 65% of their 2008 levels, therefore meeting the proposed 2015 commitment; the calculated NO_x emissions have reduced by 43%, so this target should be met by 2015.

The Transport Strategy for Cambridge and South Cambridgeshire and Air Quality

The Transport Strategy for Cambridge and South Cambridgeshire was adopted in March 2014. One of the eight objectives of the strategy is:

- To meet air quality objectives and carbon reduction targets, and preserve the natural environment.

Improving air quality and carbon reduction is firmly embedded in the policy basis of TSCSC, as set out below.

Policy TSCSC 17: Air quality

The County Council is committed to working with partners to achieve air quality improvement targets both in Cambridge and in South Cambridgeshire. Particular emphasis will be placed on reducing emissions from transport in existing and future air quality management areas.

The County Council will work with partners to ensure that passenger transport operators use increasingly ‘clean’ fleets and monitor air quality and implement Air Quality Action Plans where relevant to ensure agreed targets are met.

Policy TSCSC 19: Carbon emissions

The County Council will work with key partners and transport operators and businesses to reduce transport related emissions of carbon and pollutants to help achieve agreed targets.

The strategy places heavy emphasis on the aim of promoting more sustainable modes of travel as an alternative to private car use. Increases in walking and cycling, as well as increasing rail links and bus patronage (and thus bus efficiency in terms of passenger trips) will help to reduce emissions on a local level. This is especially true of the level of carbon emissions from the longer distance trips from South Cambridgeshire into Cambridge, where the greater emissions occur. The strategy will consider a range of potential interventions that could improve air quality, including, but not limited to:

- Provision of a third city centre cycle park
- Extension of the Cambridge Core Traffic Scheme.
- Increased priority for non-car modes outside of the city centre.
- Expansion of Controlled Parking Zone across Cambridge and South Cambridgeshire fringes.
- Creation of a low-emission zone – restricting access to the Core Area regulated by rising bollard transponder entitlement.

Further detail about air quality management in Cambridge and South Cambridgeshire can be found in the TSCSC.

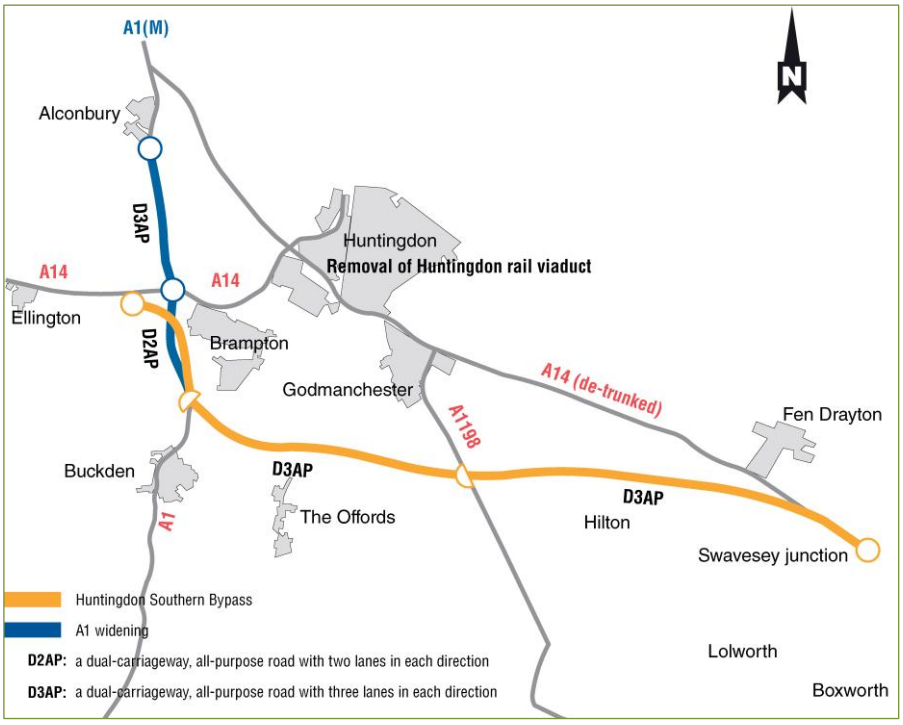
Traffic management

Traffic management can significantly improve air quality by removing or reducing queuing vehicles particularly in urban areas. 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

A14

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 between Cambridge and Huntingdon. The proposed Highways Agency scheme to reroute and widen the A14 is expected to have a positive impact on air quality along the route, particularly in Huntingdonshire and in Huntingdon itself.



A14 Cambridge to Huntingdon Improvement proposed route between Swavesey and Ellington

The opening of The Busway has significantly improved the quality of the public transport network between Huntingdon, St Ives 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 dioxide emissions in the area.

As part of the Regional Freight Quality Partnership, we work with our neighbouring counties and partners to try to improve HCV management around the Eastern Region. By adopting this approach we will work to ensure that the economy can be sustained and any adverse effects on the environment and communities minimised, including in those affected by the A14.

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 dioxide 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 dioxide 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 Long Term Transport Strategy, district based strategies and our Transport Delivery Plan programme we will therefore implement measures that can either improve air quality and carbon dioxide emissions or minimise impacts on climate change and air quality. Real Time Passenger Information will also be used to help manage the bus fleet.

Air Quality Action Plan for the Cambridgeshire Growth Areas

Our Long Term Transport Strategy and district based strategies (including TSCSC) 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 strategies for addressing wider accessibility and public transport issues are set out in Challenges 1, 2, 3 and 5.

The enhancement of the cycleway and bridleway networks will provide additional opportunities for residents of rural areas to make sustainable transport choices. Furthermore, the development of our district based strategies will provide additional opportunities for improving sustainable travel and therefore air quality and carbon dioxide emissions in rural areas.

Challenge 3 contains detailed information about these initiatives. Our proposals for measures to manage demand 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 Challenges 2 and 8, 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 have worked in partnership with the Districts and Cambridge City to ensure that proposals for new development contained in emerging Local Plans are located in sustainable locations. In addition, the local plans address air quality and emissions in detail. The South Cambridgeshire Submission Local Plan requires larger development to produce Low Emissions Strategies, and the Cambridge Draft Submission Plan seeks low emission vehicle infrastructure where viable in new development.

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.

Challenge 2 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 dioxide 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

EValu8 run a Plugged in Places scheme across the East of England

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. In September 2013, OLEV published guidance 'Driving the future today: a strategy for ultra-low emission vehicles in the UK' which sets out the government's long term commitment to this issue.

In July 2013, the Office for Low Emission Vehicles published a report on the Lessons Learnt from the Plugged-in Places Projects. The EValu8 Plugged in Places scheme (PIP) aimed to install an operationally effective electric vehicle (EV) charging network across the East of England, using it as a test bed and innovation platform to build upon the region's significant innovation capabilities and help catalyse the new global EV economy.

The first phase was a two year project from March 2011 to March 2013 to develop initial infrastructure and gain valuable insight into the benefits of infrastructure on EV uptake.

EValu8 has:

- Installed an electric vehicle charging infrastructure across the East of England of over 350 charging points, linking in with charging networks in London, Milton Keynes and the Midlands
- Generated confidence and interest from businesses and the public to prove that EVs are a viable alternative for a range of journey types
- Provided a test bed for businesses to develop and test new technologies, products and services across the transport, built environment, digital and energy sectors.

The East of England's low carbon industry already forms 9% of the UK market and is worth in excess of £10 billion.

Further funding for phase two of the East of England Plugged in Places scheme has been granted by the Office of Low Emission Vehicles (OLEV). This is focused on specific deliverables to improve driver experience and usage of the network. Projects include links to car clubs, e-mobility hubs, further specific infrastructure grants and improvements to the Source East network.

In partnership with the Marshall Motor Group, Cambridge City Council have provided electric car recharging points in the Grafton East and Queen Anne Terrace car parks in Cambridge,

Throughout the life of the Plan we will keep up to date with local and national research on electric vehicles and alternative fuels to help inform our strategy and future Transport Delivery 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 dioxide which we need to tackle. Buses using the Busway run on bio-fuel, 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.

Through a commitment set out in the Better Bus Area Fund bid, Stagecoach replaced the Citi 2 fleet with Euro V standard vehicles in Spring 2013.

We fully support the government's proposals to reduce carbon dioxide 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 in Challenge 3.

Tackling our own emissions

We are also working hard to reduce our own emissions. 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

The County Council's Energy Management Team works to measure, monitor and reduce energy consumption across the County Council's building portfolio, including corporate offices, libraries, schools and other buildings. Activities include:

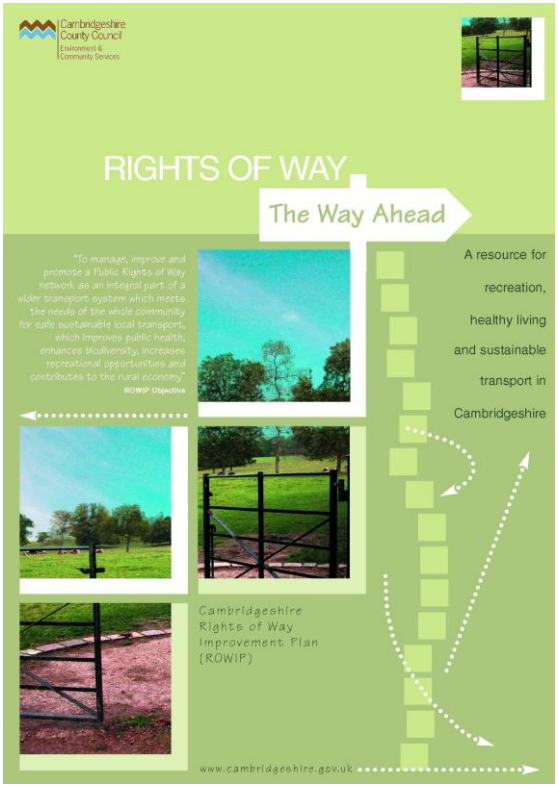
- Collecting, maintaining and reporting energy data for County Council occupied premises - including projects to improve data accuracy

- Ensuring compliance with UK and EU energy legislation - including the Carbon Reduction Commitment Energy Efficiency Scheme which requires us to purchase carbon allowances for each tonne of carbon dioxide emitted as a result of energy consumption
- Identifying and implementing energy efficiency improvement projects, working closely with colleagues in facilities management and other departments
- Liaising with stationery and energy suppliers on contract renewals, billing errors and supply matters
- Raising awareness of energy efficiency and provision of energy efficiency advice

Contributing to Green Infrastructure

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.

The LTP supports the maintenance and provision of Public Rights of Way, access to the countryside and the provision of sustainable transport.



The rights of Way Improvement Plan is part of the Local Transport Plan suite of documents

A well-developed Rights of Way network is essential in providing access to the countryside. 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 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 effect 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. Furthermore, through the Long Term Transport Strategy and district based strategies we will investigate instances where noise from public transport routing and stops is of concern and develop measures to mitigate as appropriate.

Strategic Environmental Assessment and Habitats Regulation Assessment

The Busway has opened up access by public transport to the Fen Drayton Lakes

At the same time as refreshing this document and our Transport Delivery Plan, we have refreshed our 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 Transport Delivery Plan, at the very earliest stage. The refresh has been particularly important to take account of the two new significant strategies which have been produced since the original LTP3 was adopted in 2011 – the Long Term Transport Strategy (LTTS) and the Transport Strategy for Cambridge and South Cambridgeshire (TSCSC).

There are a number of major schemes contained within the TSCSC and LTTS which have been highlighted through the SEA and HRA processes and raised concerns with the public, stakeholders and statutory and non-statutory environmental groups because of potential adverse environmental effects on the built, natural and historic environment. We will continue to work with and seek advice from key environmental bodies throughout the life of this plan.

Our transport strategies and the schemes within them seek to improve the transport conditions for people moving around the county, against a backdrop of growth, while protecting and enhancing the environment. As transport schemes and measures in our strategies begin the lengthy process to being delivered on the ground, thorough environmental assessment, liaison with statutory bodies, and large-scale consultation will form a key part of scheme development. Detailed work will be required to ascertain environmental risks and identify alternative options, compensation or mitigation measures.

Many of the schemes contained within these high level strategies have not yet been worked up in detail (as is clearly set out in the SEA Environmental Report). It is important that environmental assessment work is undertaken as part of the scheme development, to enable a robust assessment of whether they would be acceptable in environmental terms or whether appropriate mitigation or compensatory provision could be made. This is detailed in the Environmental Report. Major transport infrastructure is subject to the Town and Country Planning (EIA) Regulations 2011 and there is an expectation that the screening stage of Environmental Impact Assessment would lead to Environmental Statements being prepared for many of the major transport proposals in the LTTS.

The SEA has also identified the potential for cumulative beneficial and adverse environmental effects with other plans, policies and programmes (for example, interventions promoted by Network Rail and the Highways Agency). A collaborative approach between the County Council and partners will ensure that knowledge and mitigation opportunities are shared.

The first stage of assessment under the Conservation of Habitats and Species Regulations 2010 (the Habitats Regulations) (Stage 1 - Screening) has been undertaken on the LTP3 refresh in order to determine 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); and,

There are thirteen international sites within Cambridgeshire. These are:

- Chippenham Fen Ramsar site
- Devil's Dyke SAC
- Eversden and Wimpole Woods SAC
- Fenland SAC
- Ouse Washes SPA, SAC and Ramsar site
- Nene Washes SPA, SAC and Ramsar site
- Portholme SAC
- Wicken Fen Ramsar site
- Woodwalton Fen Ramsar site

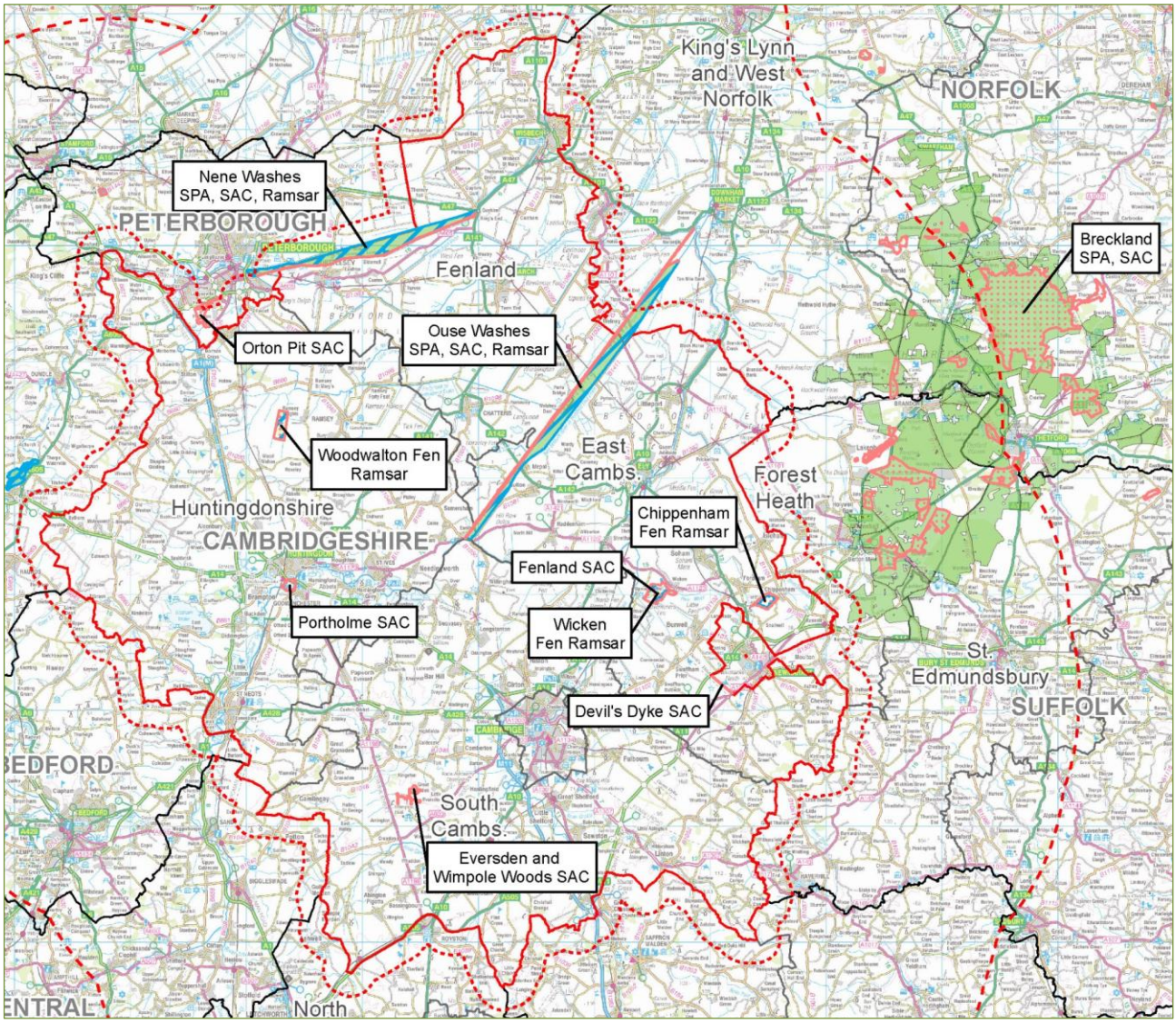
There are also two international sites within 2 km of the LTP3 boundary. These are:

- Breckland SPA.
- Orton Pit SAC.

Reach Lode pedestrian and cycle bridge taking National Cycle Network Route 11 between Wicken Fen and Anglesey Abbey

The HRA Stage 1 Screening of the LTP3 has found that there are no likely significant effects on these international sites.

Where necessary, the Council commits to carrying out further assessment (under the HRA process) of schemes and strategies where there is currently only outline proposals or limited information available. Details of these commitments and the schemes and strategies to which they relate are provided in the HRA Screening Report.



Sites of international nature conservation interest in / near to Cambridgeshire

Other policies and initiatives that impact on this challenge

- National Planning Policy Framework (NPPF).
- Local Plans.
- Joint Air Quality Action Plan
- Cambridgeshire Minerals and Waste Plan.
- Natural Environment and Rural Communities Act 2006
- Natural England Guidance on Local Transport Plans and the Natural Environment
- 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 Framework and National Planning Practice Guidance

National planning policy forms 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 Transport Policy

The department for Transport has highlighted its key overarching transport policies in its Business Plan 20112-2015 as:

1. Deliver the coalition's commitments on high speed rail.
2. Deliver a sustainable and customer focussed railway.
3. Support sustainable local travel.
4. Invest in our roads to promote growth, while reducing congestion and tackling carbon.
5. Promote sustainable aviation.
6. Reform the Coastguard and search and rescue helicopter capability.
7. Implement the Department's key cross-cutting reform priorities.

This LTP reflects particularly government priorities 3 and 4 as these are more locally focussed and relevant to Cambridgeshire.

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 the LTP3 Transport Delivery Plan. 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 the following passenger routes currently serving communities in Cambridgeshire:

Thameslink Great Northern services

- Peterborough to London Kings Cross *(via Huntingdon and St Neots*)
- Kings Lynn to London Kings Cross *(via Ely, Cambridge, Stevenage and Finsbury Park)*

Greater Anglia services

- Kings Lynn to London Liverpool Street *(via Ely, Cambridge and Tottenham Hale)*
- Ipswich to Peterborough *(via Ely and March)*
- Cambridge to Norwich *(via Ely)*
- Cambridge to Ipswich *(via Newmarket)*
- Cambridge to Stansted Airport *(from July 2014)*

Cross Country services

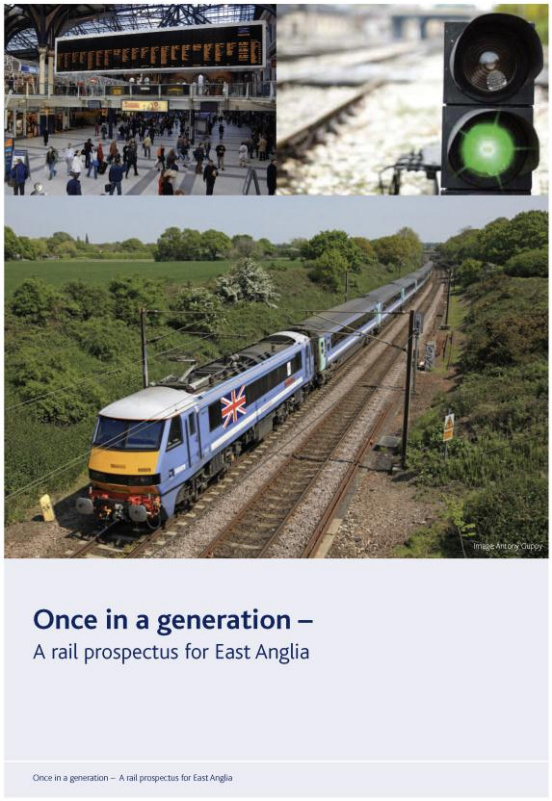
- Stansted Airport to Birmingham New Street *(via Cambridge, Ely, March and Peterborough)*

East Midlands services

- Norwich to Liverpool Lime Street *(via Ely, March and Peterborough)*

Expanding and improving the rail network is one of the top priorities for central Government, with the rail network seen as vital to the UK's economic prosperity. Network Rail, DfT Rail and Train Operating Companies are responsible for the provision of train services and railway infrastructure.

At a local and regional level, rail provides a number of critical links in Cambridgeshire's transport network, and has great potential to provide new capacity for trips to support growth across the county. It is therefore vitally important that we work effectively with the rail industry and lobby for improvements to Cambridgeshire's rail network, including by:



Once in a generation – A rail prospectus for East Anglia

- Engaging with government and the rail industry on a regular basis.
- Involvement in local, regional and national groups lobbying for and working towards improving rail links. These include:
  - The East West Rail consortium (which Cambridgeshire County Council currently leads – see below).
  - The coalition of MPs and Local Authorities and LEPs who produced "Once in a Generation: A rail prospectus for East Anglia".

- Promotion of rail infrastructure and service improvements in the county and beyond that will bring direct benefits to Cambridgeshire.
- Championing smaller local rail schemes, that may not register at a national level, but that may provide cost effective solutions to local transport issues, foster economic growth and bring additional income for the rail industry, .including:
  - Cambridge Science Park station, where the County Council's work to develop the scheme to GRIP4 has led to the commitment to the scheme by government and the rail industry.
  - A new station at Soham
  - The reopening of the March to Wisbech railway line
- Working with Network Rail and train operators to improve access to stations.

Figure 4.11 shows existing passenger rail services in and around Cambridgeshire, and Figure 4.12 shows planned and potential future improvements to the network.

The following paragraphs summarise our priorities for rail and areas where we will work with the rail industry and other partners to deliver improvements and investigate solutions. Detail on how we will help to encourage rail travel is set out in our strategy for addressing Challenge 3, and detail of the main service and infrastructure enhancements that we are seeking are set out in Chapter 4 of the Long Term Transport Strategy.

Service enhancements and new services

Services between Cambridgeshire and London

The Thameslink programme will connect the East Coast Main Line into London St Pancras by 2018. This will allow some services from Cambridge and Peterborough to be routed away from London Kings Cross onto the Thameslink route, and on to destinations such as Gatwick Airport and Brighton. The improvements due to the Thameslink programme will lead to increases in frequency at all rural stations on the line between Kings Lynn and London Kings Cross.

By 2018, the number of trains between Cambridge and London each hour will have increased from six to eight. Two trains each will travel to London Liverpool Street and London Kings Cross, with four trains travelling through the Thameslink core route through London St Pancras. Services from Peterborough, Huntingdon and St Neots to London will also benefit from additional capacity, and two trains an hour from Peterborough will travel through the Thameslink core to Gatwick Airport.

Regional services

The County Council will lobby for improvements to rural rail services, in partnership with the coalition of MPs and Local Authorities and LEPs who produced 'Once in a Generation: A rail prospectus for East Anglia'. Links and locations where improvements that are sought include:

- Cambridge to Kings Lynn services increased in frequency to half hourly (*committed by 2017 as part of new Thameslink, Southern and Great Northern franchise*).
- Peterborough to Ipswich services increased in frequency to hourly.
- Cambridge to Norwich services increased in frequency to half hourly.
- Cambridge to Ipswich services increased in frequency to half hourly.
- Cambridge to Peterborough services increased in frequency to half hourly.

- Cambridge to Stansted Airport services increased in frequency to half hourly (*service commenced in July 2014*).
- Reopening of the March to Wisbech line (see below).
- Support for the completion of the Central Section of East West between Luton / Bedford and Cambridge (see below).

Local rail infrastructure needs

Cambridge

Cambridge is the busiest station in the east of England, and a focus for many rail trips in the county and beyond. In 2011, a new island platform was opened, providing additional capacity and flexibility in the local network. Further works will deliver a new station square, a major enlargement of the ticket hall, improved platform access, a new car park and a 3,000 space cycle park – which will be the largest in the United Kingdom for any purpose.

In addition, the County Council has championed and funded the development of the new Cambridge Science Park Station and transport interchange, including a 1,000 space cycle park. The station will be delivered by Network Rail and will open in early 2016.

A new station to serve the Addenbrooke's Hospital, the Cambridge Biomedical Campus and the Cambridge Southern Fringe residential development would markedly improve access to what is already one of the larger biomedical sites in the world. When fully built out, the Biomedical Campus will have up to 30,000 employees, and will be an even bigger draw for trips from outside of the Cambridge area, including from the international gateways of Stansted Airport, Gatwick Airport and London St Pancras. All three of these locations could serve Addenbrooke's directly by rail. Opportunities to develop plans for a station will be sought with the rail industry and with business / health sector partners.

Peterborough to Ipswich service and Soham Station

The Ipswich to Peterborough service is now the only one in the East of England with a frequency of less than hourly. There is scope to increase use of the railway on this route by the simple expedient of providing more trains.

A station at Soham would support growth in the town and provide wider economic benefits. With an hourly frequency, the case for investment in Soham is strong.

Peterborough service approaching March Station

Figure 4.11. Existing passenger rail services in and around Cambridgeshire

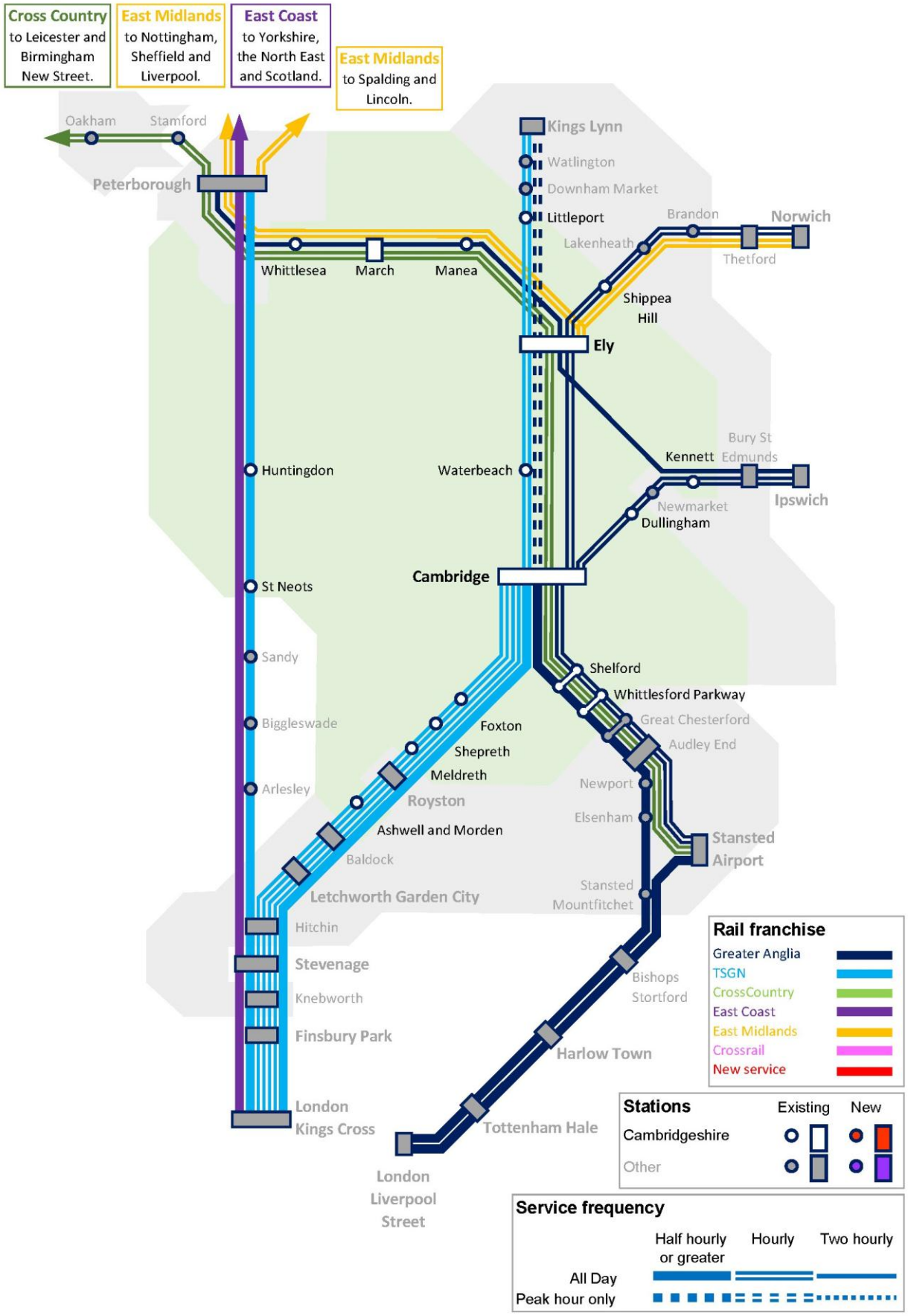
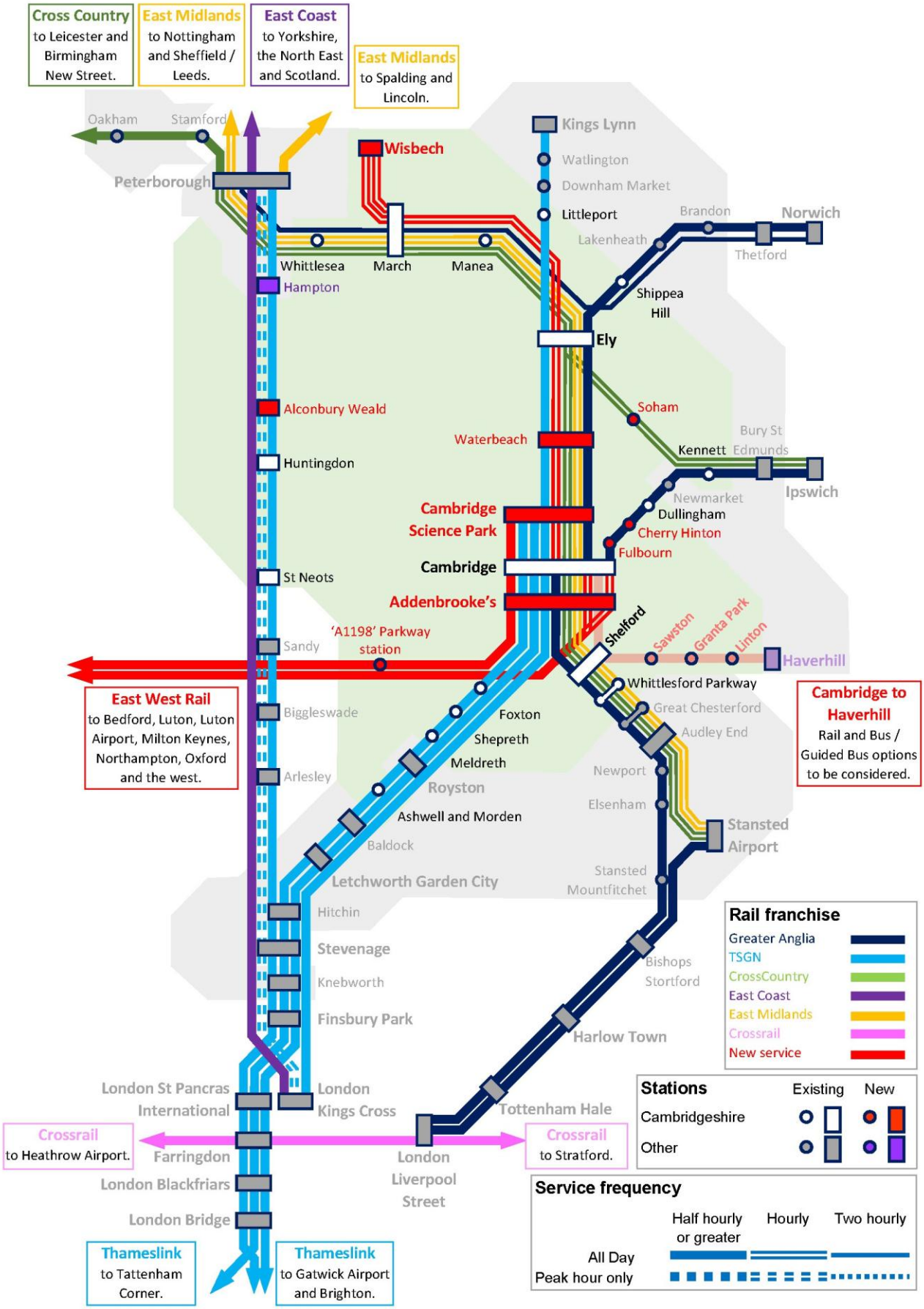


Figure 4.12. Planned and potential rail service improvements



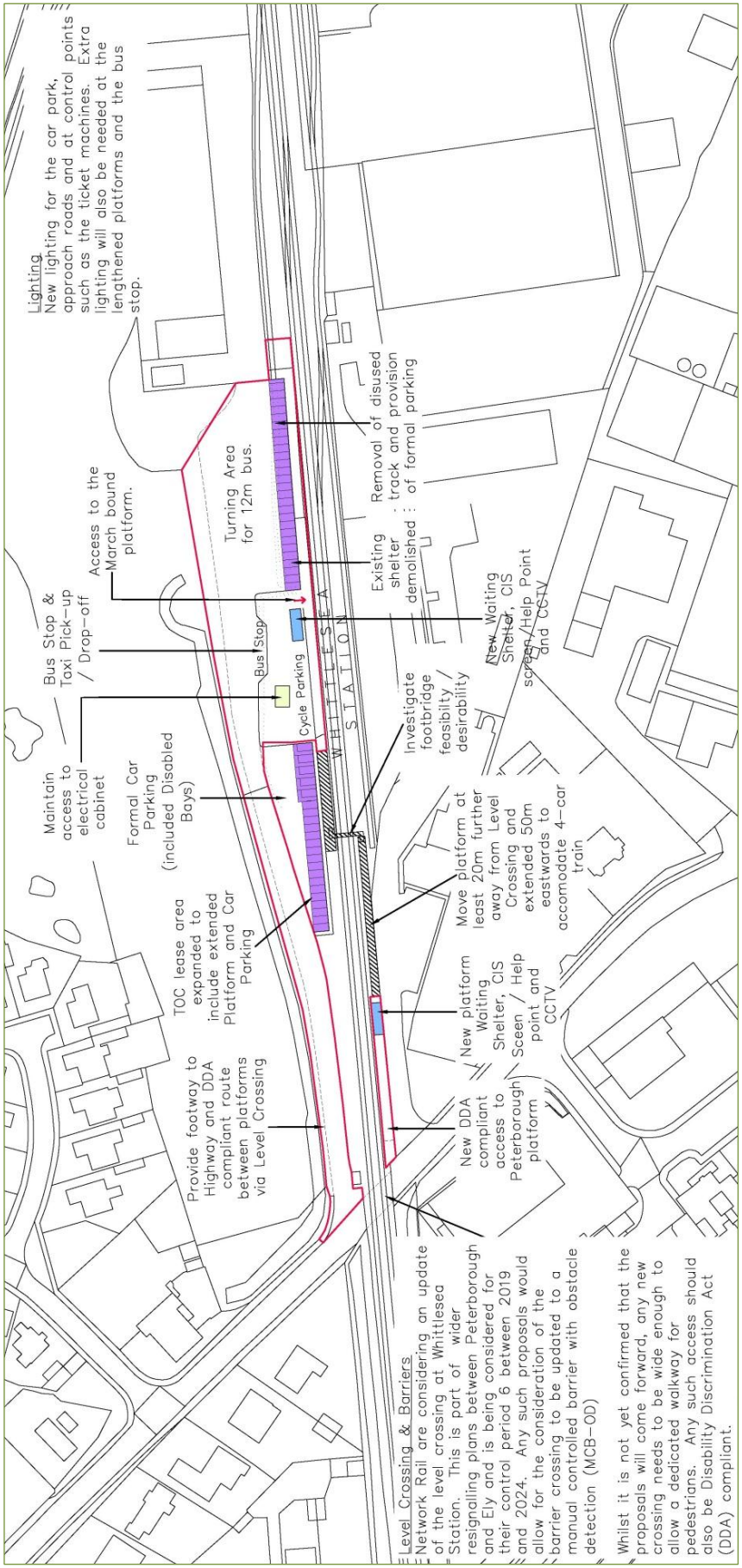
Ely

Ely is a major hub in the rail network of the east of England, with six passenger services and the nationally important Felixstowe to Nuneaton freight route passing through the city. The Ely Southern Bypass will resolve the problems associated with the low bridge and level crossing on the A142 immediately to the north of Ely Station, and will also contribute towards the redevelopment of the station area by reducing the level of through traffic.

Increases in freight and passenger services that are planned will require significant levels of infrastructure investment to increase capacity in the Ely area. Works are already committed at Ely North junction, where the Norwich, Kings Lynn and Peterborough lines converge, but further capacity is likely to be needed in the medium to longer term.

Fenland stations – March, Whittlesea and Manea

An hourly frequency on this route would enable a half hourly stopping pattern at March throughout the day, and an hourly stopping pattern at Whittlesea and Manea. Improvements to facilities are sought at all three stations, and are set out in the Fenland Rail Development Strategy.



Whittlesea Station Masterplan

March and Whittlesey – implications of greater freight movements

As well as at Ely, the increase in freight movements on the Felixstowe – Nuneaton route will have impacts on level crossing down time at March and Whittlesey. At Whittlesey, we propose to replace the current A605 Kings Dyke level crossing with a bridge or underpass. The B1101 at March is more lightly trafficked and impacts of additional level crossing closures will be less severe than on the A10 or A605. The impact of increasing train movements on the B1101 will be monitored.

New or improved stations to support growth – Alconbury Weald and Waterbeach

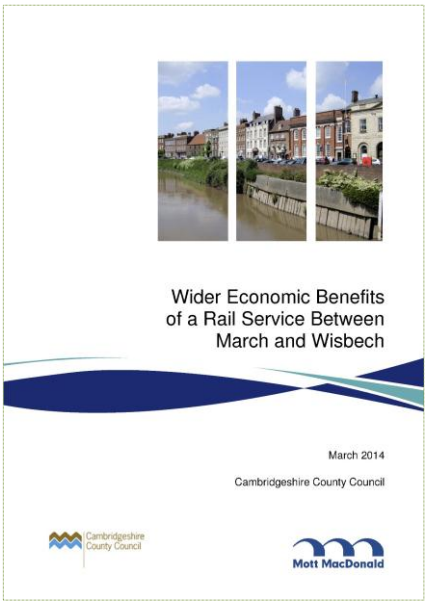
Major development at Alconbury Weald (Enterprise Zone and 5,000 homes) and Waterbeach New Town (8,000 to 9,000 new homes) offers the opportunity for rail to provide for longer distance and local transport demands. A new station at Alconbury Weald would also provide greater operational flexibility on the east Coast Main Line, and potential for new service patterns into London. An improved or relocated station to serve Waterbeach village and the Waterbeach New Town development would provide for many local trips and would take pressure off the busy A10 between Cambridge and Ely.

New railways

March to Wisbech line

The re-opening of the March to Wisbech line was identified as an opportunity by the Association of Train Operating Companies 2009 report 'Connecting Communities'. Further work undertaken by the County Council in 2012-14 has indicated that a positive transport Business Case exists.

Funding was awarded in July 2014 as part of the Greater Cambridge Greater Peterborough Growth Deal with government to take forward work on the Wisbech Access Strategy. This includes funding to produce an Outline Business Case, and to undertake Network Rail GRIP Stage 2 (Feasibility) for the reopening of the line between March and Wisbech, alongside the development of other transport infrastructure needed in the Wisbech area.



Study into the 'Wider economic benefits of a rail service between March and Wisbech'

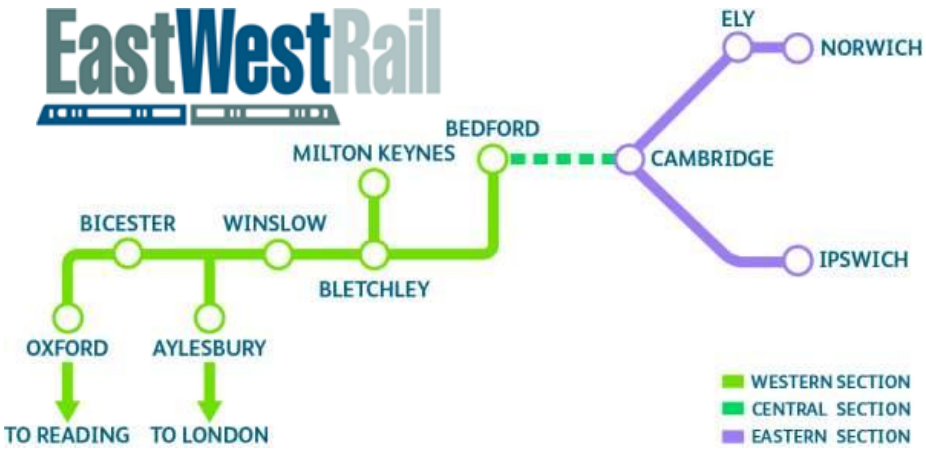
East West Rail

The East West Rail proposals are for a strategic rail route linking Ipswich, Norwich and Cambridge, with Letchworth, Bedford, Milton Keynes, Bicester and Oxford, allowing connections to Swindon, the Thames Valley, South West England and South Wales, together with a spur to Aylesbury. The western section of the scheme, between Oxford and Bedford is now committed and funded.

The central section between Bedford and Cambridge is the most challenging. In December 2013, Government published its Tech Connected prospectus, which articulates its commitment to a national tech community, linked by a modern and growing rail network, including the central section of East West Rail. Cambridgeshire County Council led the East West Rail consortium in carrying out study work on the Central Section. The study showed that improved rail connections and services could deliver sufficient economic benefit to justify investment.

Network Rail is now undertaking work to evaluate how services using the Central Section could be delivered to realise the greatest benefits. As a minimum level of service, Cambridgeshire County Council would wish to see at least two services an hour between Oxford and Cambridge, and for those services to extend hourly to Ipswich and Norwich. At least one additional hourly or half hourly passenger service should use the Central Section and could link Cambridge to Milton Keynes, and potentially on to Northampton. There are likely to be opportunities to consider other services as routes options and benefits are explored by Network Rail.

Current services on what will become the Eastern Section of East West Rail run between Cambridge and Ipswich and between Cambridge and Norwich. With the completion of the central section, it is envisioned that East West Rail services will be extended to link these destinations to Oxford and beyond via Cambridge.



The sections of the East West rail route

The route of the Central Section will not be known for some time. Depending on the route chosen, there will be opportunities for new stations, including at Addenbrooke's in the south of Cambridge, and potentially at a village / parkway station in South Cambridgeshire, both of which are shown illustratively in Figure 4.12.

Community Rail Partnerships

The County Council will work with local communities and rail and local authority partners to support Community Rail Partnerships (CRPs).

In Cambridgeshire, there are currently two partnerships (also see Challenge 4):

- In Fenland, the Hereward CRP, covering Whittlesea, March and Manea stations (with Abellio Greater Anglia).
- In South Cambridgeshire, covering Foxton, Shepreth and Meldreth stations (with Govia Thameslink Railway).

Community Notice Board at Manea Station

Rail consultations and general engagement

The County Council will continue to engage with the rail industry on key issues, including consultations on Route Utilisation Strategies and the new passenger franchises for routes serving Cambridgeshire.

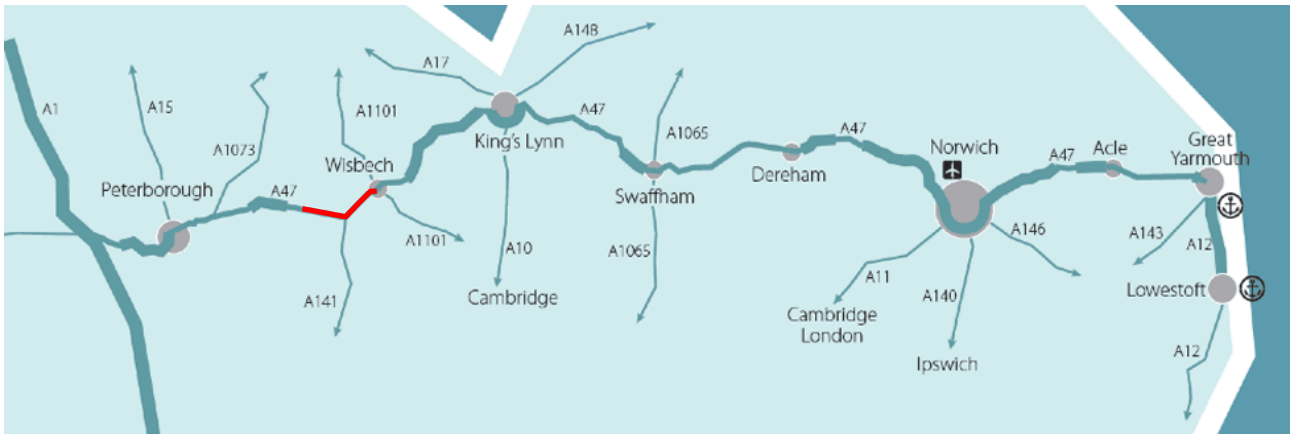
The Trunk Road and Motorway network

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 4.13. The A14 is the most problematic part of the Trunk Road network in Cambridgeshire, and is discussed in detail below.

Changes and improvements to the trunk road network can have considerable impact on the transport network that the County Council is responsible for. We will continue to work closely with the Highways Agency to lobby for and help bring about improvements to the trunk road network where appropriate and necessary. Two particular areas of interest are highlighted in the following paragraphs.

The A47 corridor

The A47 links Norwich with Peterborough, by way of via Kings Lynn and Wisbech. A number of sections of the route are dual carriageway, but several key sections are not including the stretch between Thorney, Guyhirn, Wisbech and Walton Highway, which is largely in Cambridgeshire.



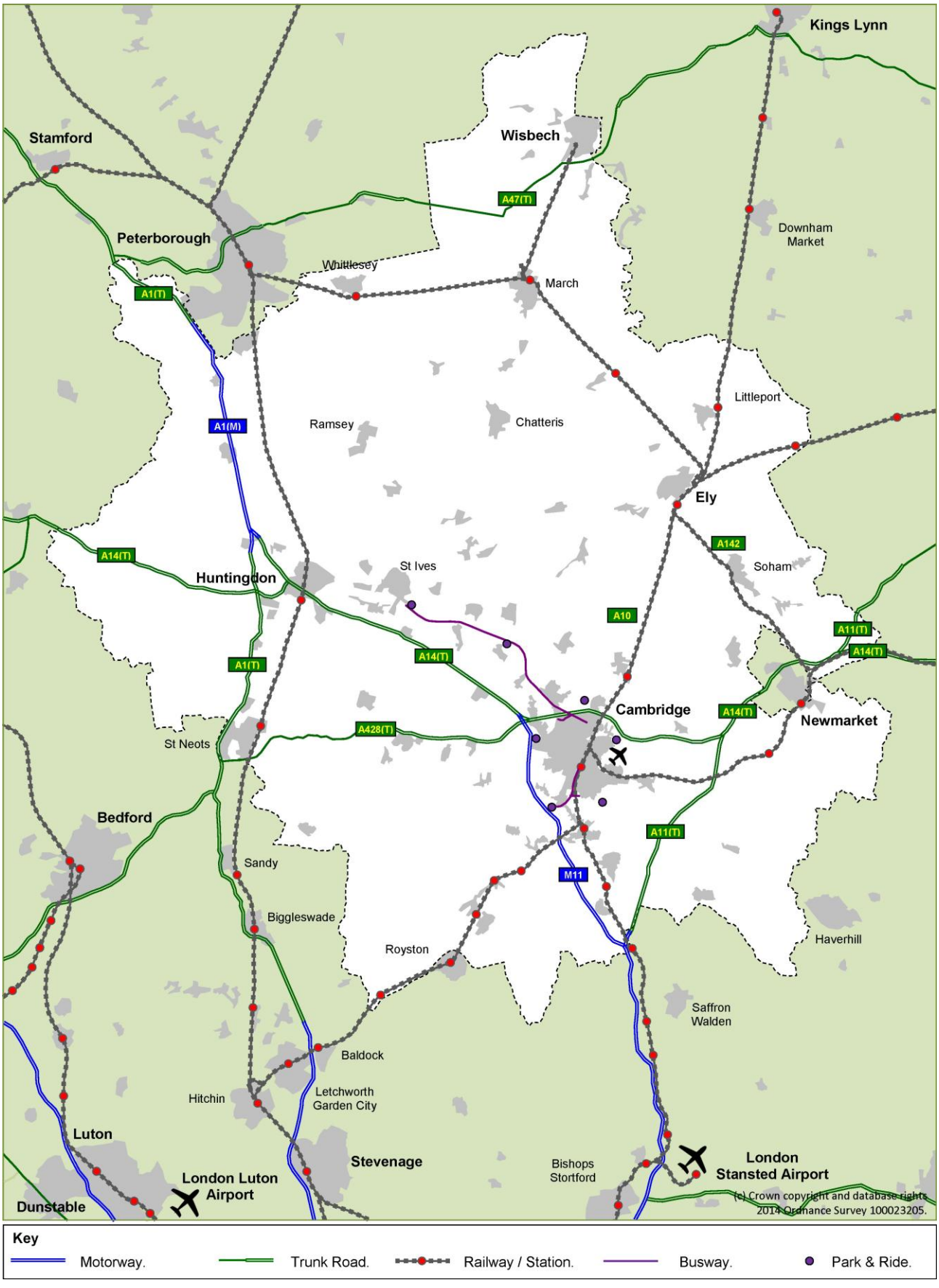
The A47 between the A1 and Great Yarmouth (A47 in Cambridgeshire highlighted in red)

Cambridgeshire County Council (along with Fenland District Council, Norfolk County and District Councils) is part of the A47 Alliance. The Alliance supports and lobbies for the dualling of the A47 through Peterborough and parts of Norfolk, including the Norwich bypass. We will continue to work with neighbouring authorities to help bring forward improvements to the route.

On 1 December 2014, the government announced funding for several schemes that will provide capacity improvements on the A47. These are primarily in Norfolk, but do include capacity improvements at the A47 / A141 Guyhirn roundabout in Cambridgeshire, and the dualling of the stretch between Wansford and Sutton in Peterborough. While this is positive, there remains a need for the full dualling of the whole route.

Cambridgeshire County Council is considering longer term route options for the dualling of the Thorney to Walton Highway section of the A47. This work is funded by the Greater Cambridge Greater Peterborough Enterprise Partnership and will report in spring 2015.

Figure 4.13. Motorways and Trunk Roads in Cambridgeshire



The A428 corridor

The A428 links the A14 Cambridge Northern Bypass to the A1 at St Neots. It is built to dual carriageway standard between Cambridge and Caxton Gibbet, and is single carriageway between Caxton Gibbet and St Neots. It forms part of an east west route with the A14 and A421 between Ipswich and Milton Keynes. A short, busy stretch of the A1 is used to link the A428 and A421.

Major growth is planned on the A428 corridor, including at St Neots, Cambourne, Bourn Airfield and West / North West Cambridge. Congestion already occurs on the approaches to the Caxton Gibbet roundabout, around the south of St Neots, and on the A1303 which takes traffic from the A428 into Cambridge and onto the M11 southbound.

The A428 at Eltisley

The Long Term Transport Strategy includes measures to address capacity problems on the A428, including:

- Major public transport interventions focussing on trips into Cambridge.
- A comprehensive solution to the capacity and congestion problems on the A1 and A428 between the Black Cat and Caxton Gibbet junctions.

On the 1 December 2014, the government announced that the A428 would be dualled between the Black Cat and Caxton Gibbet junctions by 2021, as part of a wider vision to create an ‘expressway’ between Cambridge and Oxford. While details of the proposals are yet to be developed, the scheme explicitly includes the grade separation of the Black Cat junction. The terminology ‘expressway’ implies grade separation along the whole route.

The A1 corridor

Alongside the other road improvement announcements made on 1 December 2014, government announced that an ‘A1 East of England Feasibility Study’ would be undertaken. The study will consider how to improve the safety and performance of the A1 between Peterborough and the M25, including the possibility of upgrading the road to motorway standard.

The study will of necessity consider the interaction between the A1 and the A428 improvement scheme detailed above. It should also consider other problem areas on the A1 in Cambridgeshire, including at Buckden, where the A1 closely skirts the western edge of the village and has a roundabout and several ‘at grade’ priority junctions between local village roads and the busy dual carriageway trunk road. A solution to the problems seen at Buckden is identified as an intervention in the Long Term Transport Strategy.

The M11

Highways England will be undertaking technology improvements to the M11 between Junction 8 (Stansted Airport) and Junction 14 (Cambridge – Girton Interchange). These will include emergency roadside telephones, signals on slip roads, Motorway Incident Detection and Automatic Signalling, Variable Message Signs, CCTV cameras and gantries. The work will be undertaken in three phases, and is likely to commence in 2018/19 at the earliest.

The A14 corridor

The A14 is a major east / west route linking the east coast ports with the Midlands and the north. A large part of the route falls within Cambridgeshire and the most congested section of the whole route is between Cambridge and Huntingdon. The A14 Ellington to Fen Ditton improvement scheme was withdrawn from the national road programme in the 2010 Comprehensive Spending Review, as at a cost of over £1 Billion, it was considered to be unaffordable. A new scheme, estimated to cost £1.5 Billion, is currently going through its statutory processes and construction should start in 2016.

The Cambridge to Huntingdon section of the A14 links with the A1(M) to the west, and to the M11 and A11 to the east, and forms a significant bottleneck in the national strategic road network. The A14 carries large amounts of international freight traffic, but is also a key route for local and regional commuter, business and freight traffic. The Cambridge to Huntingdon Multi-Modal Study (CHUMMS) was completed in 2001. The recommendations from CHUMMS have had a major impact on our transport policies and delivery in the past ten years, and are detailed in Figure 4.14.

The A14 at Spittals Interchange, Huntingdon, at Dry Drayton and an aerial view of the Girton Interchange with the M11, A428 and A1307

The most significant recommendations of CHUMMS will be addressed by the delivery of the A14 Cambridge to Huntingdon improvement scheme.

Negative impacts of the current position

The A14 has marked impacts on the local transport network in Cambridgeshire. The key impacts are noted below:

- The joint development strategy for Cambridgeshire is threatened by congestion on the A14, particularly development at Northstowe, the Cambridge fringe sites and at Huntingdon. The joint development strategy has as two of its key aims:
  - The change in settlement patterns and provision of affordable housing to reduce the long term demand for travel to Cambridge for work along routes such as the A14.
  - The promotion of economic growth.
- Rat-running through villages along the route of the A14, leading to localised congestion in roads and settlements that are not designed for strategic traffic, and to negative social and environmental impacts.
- The A14 through Huntingdon is the major contributing factor in the Air Quality issues in the town that have led to the declaration of an Air Quality Management Area (AQMA). It will not be possible to address air quality issues within the town in line with objective levels unless the A14's contribution to the problem is removed or significantly reduced.
- There are also air quality problems at Brampton, Hemingford, Fenstanton, Bar Hill, Girton, Histon and Impington due to A14 traffic, which also have declared AQMAs.

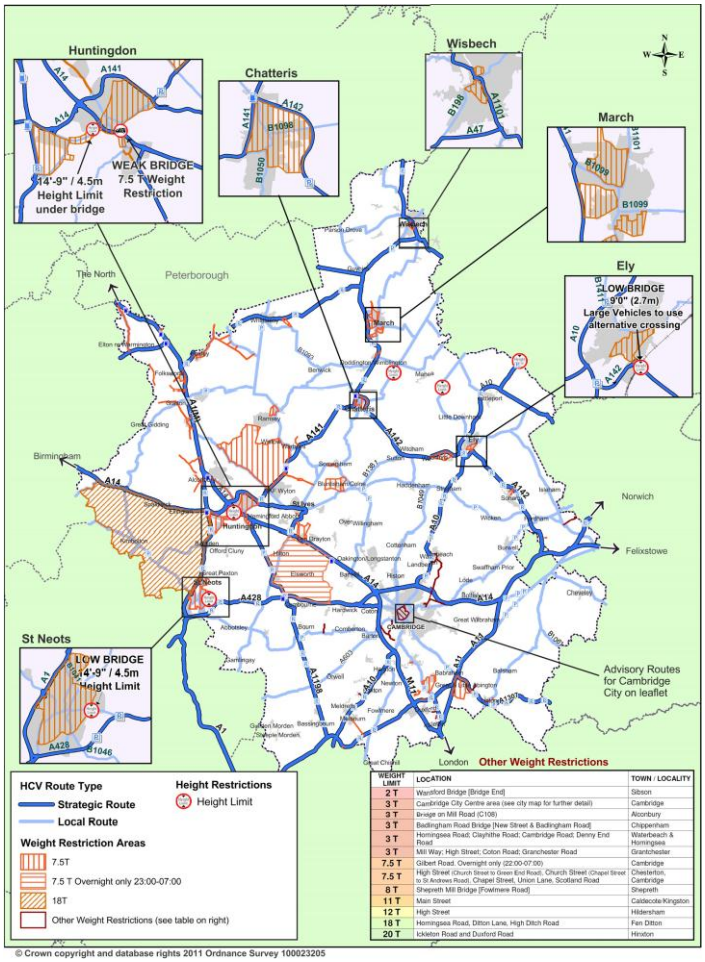
Figure 4.14. Progress against CHUMMS recommendations as of March 2011

Recommendation	Status	Notes
Introduction of Rapid Transit System between Cambridge and Huntingdon, and linking to the proposed new town of Northstowe.	Implemented	The Busway will opened in 2011, and is now taking over 3 million passengers a year.
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 M11 Junction 13.	Outstanding	A14 Cambridge to Huntingdon scheme going through its statutory processes with construction due to start in 2016.
Development and extension of measures to manage demand in Cambridge.	Implemented and ongoing	Measures to manage demand in Cambridge have been introduced, including further stages of the Core Traffic Scheme and extension of the Cambridge Park & Ride network. In addition, strategies for the market towns of Huntingdon, St Ives and St Neots have all had to deal with the local implications of the impact of the current congested A14.
Traffic calming measures in villages affected by traffic problems caused by congestion on the A14 corridor.	Implemented	Traffic calming measures in 21 villages were introduced in 2003 and 2004.
Upgrade of the Felixstowe to Nuneaton railway line for increased freight use.	In progress	Works to increase the capacity of the route in terms of both size and number of freight train currently in progress. Includes works at Kennet and Ely in Cambridgeshire. See Challenge 1.

Local policies

HCV Freight Advisory Map and Cambridgeshire Lorry Management Strategy

In early 2012, an updated Heavy Commercial Vehicle (HCV) Strategy was adopted by the County Council. The strategy recognises the economic importance of road haulage and the need to balance this with the environmental impact of lorries, through partnership working with the haulage industry and local communities.



The Cambridge Advisory Freight Map

An advisory freight map for the county is available on our website. It aims to reconcile the needs of local communities and lorry operators, and we hope to better manage HCV traffic by giving freight companies the Highway Authority's preferred routes to consider, when planning their journeys. A Cambridge city centre map displays recommended access points into and out of the city. HCVs should only use the routes within Cambridge if they are collecting or delivering within the city centre. In addition to this map, there are also downloadable satellite navigation apps available which alert the user to the county's weight restrictions.

Parish Plans

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 Local Highways Improvement initiative, which allows local communities to apply for up to £10,000 as a contribution to their project. To be eligible they will supply at least 10% of the overall cost.

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.

Shape Your Place

ShapeYourPlace is a website designed to help resident improve their neighbourhoods. In Cambridgeshire, separate webpages exist for each District and all of the market towns.

It allows:

1. People to find out what's going on in their neighbourhood.
   - View the latest issues and ideas, posted by neighbours.
   - Subscribe to an issue or idea to receive email alerts when updates are posted.
   - Add their views or offer advice, by commenting on issues and ideas.
2. People to report community issues or suggest ideas to improve their neighbourhoods.
   - Use the easy online form to report an issue.
3. Service providers and neighbours respond and find solutions.
   - Local councils, the Police and Fire Service will respond within 10 working days.
   - Neighbours can offer support or advice by commenting on issues and ideas.
4. People to write a blog.
   - Use the easy online form to write a blogpost.
5. People to engage in political debate
   - Use the easy online form to start a political debate.
   - Share their opinions.
   - Ask questions.
   - Have challenging conversations.

Working with neighbouring authorities

We will continue to work with neighbouring transport authorities and district councils to consider cross boundary transport issues. Many Cambridgeshire residents rely on services outside of the county and vice versa. Furthermore, we will work with neighbouring authorities to help improve transport infrastructure outside of the county that benefits the economy of Cambridgeshire and its residents.

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 continuing 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.

The Greater Cambridge Greater Peterborough 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. Major Schemes

This chapter provides a brief outline of the major schemes programme for Cambridgeshire, and particularly for schemes that are planned for delivery in the period to 2020. In this LTP, major schemes are classed as those with a total cost of over £2 million. More detail of the overall programme can be found in the Long Term Transport Strategy.

Committed schemes in the period to 2020

The schemes listed below and detailed in Figure 5.1 are planned for delivery in the short term (to 2020) by the County Council, or by Network Rail or the Highways Agency.

- A14 Cambridge to Huntingdon improvement scheme (delivery by the Highways Agency: see above).
- A428 Black Cat to Caxton Gibbet improvement (delivery by Highways Agency).
- A47 / A141 Guyhirn junction improvement (delivery by Highways Agency).
- Cambridge Science Park Station (delivery by Network Rail).
- Cambridge Science Park Station busway access.
- A142 Ely Southern Bypass.
- Whittlesey Access Phase 1: A605 Kings Dyke level crossing.
- A10 Foxton level crossing.
- Soham Station.
- Chisholm Trail cycle route, Cambridge.
- Elements of Greater Cambridge city deal programme (see below).
- Potential for additional schemes to be delivered from Growth Deal funding (see below).

City Deal and Growth Deal

The Papworth Everard Bypass major scheme, which opened in 2007

Cambridgeshire County Council is entering into a City Deal with government and local partners in Cambridge and South Cambridgeshire that will unlock up to £500 Million of funding for transport infrastructure in the next 15-20 years. Further detail can be found in Chapter 6, and in the Transport Strategy for Cambridge and South Cambridgeshire. In addition, a Growth Deal to fund the Greater Cambridge Greater Peterborough Enterprise Partnership's (GCGPEPs) Strategic Economic Plan, including a number of major transport schemes, is the subject of a bid to government.

Some major schemes will be delivered from one or both of these sources in the next five years. The Chisholm Trail may receive funding from both sources. Growth Deal funding will part fund the Ely Southern Bypass and Kings Dyke schemes, and further bids will seek funding for other schemes from this source. Work is ongoing on the City Deal programme and for this reason further detail on every major scheme that could commence delivery in

the next five years from these sources is not included in this chapter at this time (January 2015).

Figure 5.1. Major schemes where delivery is likely to commence the period from 2015/16 to 2019/20

Scheme	Description	Scheme Cost	Delivery timescale
Cambridgeshire Schemes			
A14 Cambridge to Huntingdon improvement	A comprehensive improvement of the A14 between the Milton Interchange to the north of Cambridge and Ellington to the east of Huntingdon.	£1.5B	2016-2020
A428 Black Cat to Caxton Gibbet improvement	Dualling of remaining single carriageway section of the A428 / A421 between Caxton Gibbet west of Cambridge and the M1, including a grade separated junction at the A1 Black Cat roundabout	£250-500M	2018-2021
A47 / A141 Guyhirn junction improvement	Creation of a new larger junction linking the A47 with the A141.	< £25M	2018-2021
Cambridge Science Park Station	A new three platform railway station at Chesterton Siding in north Cambridge including a station building, car and cycle parking, station footbridge and access works.	£44M	2015-2016
Cambridge Science Park Station busway access	Busway, pedestrian and cycle access from Milton Road (at the existing Busway junction) to the new station on the line of the old St Ives to Cambridge railway line	£6M	2015-2016
A142 Ely Southern Bypass	New 1.7 km single carriageway bypass including viaduct over the river and flood plains, and a two span bridge over the Cambridge and Newmarket railway lines.	£35M	2016-2017
A605 Kings Dyke level crossing, Whittlesey	A bridge or underpass across the railway, removing the potential conflict between trains and vehicular traffic, as well as cyclists and pedestrians. A link to the industrial area north of the railway will also be provided.	£13-15M	2016-2017
A10 Foxton level crossing	A bridge or underpass across the railway, removing the conflict between trains and vehicular traffic, cyclists and pedestrians. Scheme may also provide a new station footbridge or underpass, and improved interchange facilities	£14-24M	By March 2019
Soham Station	A new two platform railway station on the site of the old station at Soham, including car and cycle parking, footbridge and access works.	£6.1M	2017-2019
Chisholm Trail cycle route, Cambridge	A new north south cycle route, broadly along the line of the railway between Cambridge Station and the new Cambridge Science Park Station.	£8M	2015-2016

Scheme funding

Details of funding sources can be found in Chapter 6. For clarity, the sources of funding that will deliver the schemes in Figure 5.1 are detailed in Figure 5.2.

Figure 5.2. Funding sources for major schemes where delivery is likely to commence the period from 2015/16 to 2019/20

Scheme	County Council	District / City Councils	Local Transport Board	Growth Deal	City Deal	Developer: CIL	Developer: S.106	Network Rail	Highways Agency (Highways England)	Other
A14 Cambridge to Huntingdon improvement	✓	✓							✓	✓
A428 Black Cat to Caxton Gibbet improvement									✓	
A47 / A141 Guyhirn junction improvement									✓	
Cambridge Science Park Station								£44M		
Cambridge Science Park Station busway access										£6M
A142 Ely Southern Bypass	✓		£6M	£16M		✓		✓		
A605 Kings Dyke level crossing, Whittlesey	✓		£3M	£5M				✓		
A10 Foxton level crossing								✓		
Soham Station	✓		£1M	✓		✓				
Chisholm Trail cycle route, Cambridge				✓	✓		✓			

The Long Term Transport Strategy: Major Schemes beyond 2020

The Long Term Transport Strategy identifies the major infrastructure requirements that are needed to address existing problems and capacity constraints on Cambridgeshire's transport network, and the further infrastructure that is required to cater for the transport demand associated with planned growth.

It includes the scheme detailed in this chapter, but takes a much broader look at transport needs in the medium to longer term. As well as schemes on the local transport network, it identifies interventions on the trunk road, motorway and rail networks.

The Long Term Transport Strategy is a high level document, and as schemes contain in it come forward, the LTP Policies and Strategy document and the LTP Transport Delivery Plan will be updated to ensure that they reflect delivery of major schemes to date, and ongoing delivery.

Cambridge Science Park Station and Busway access

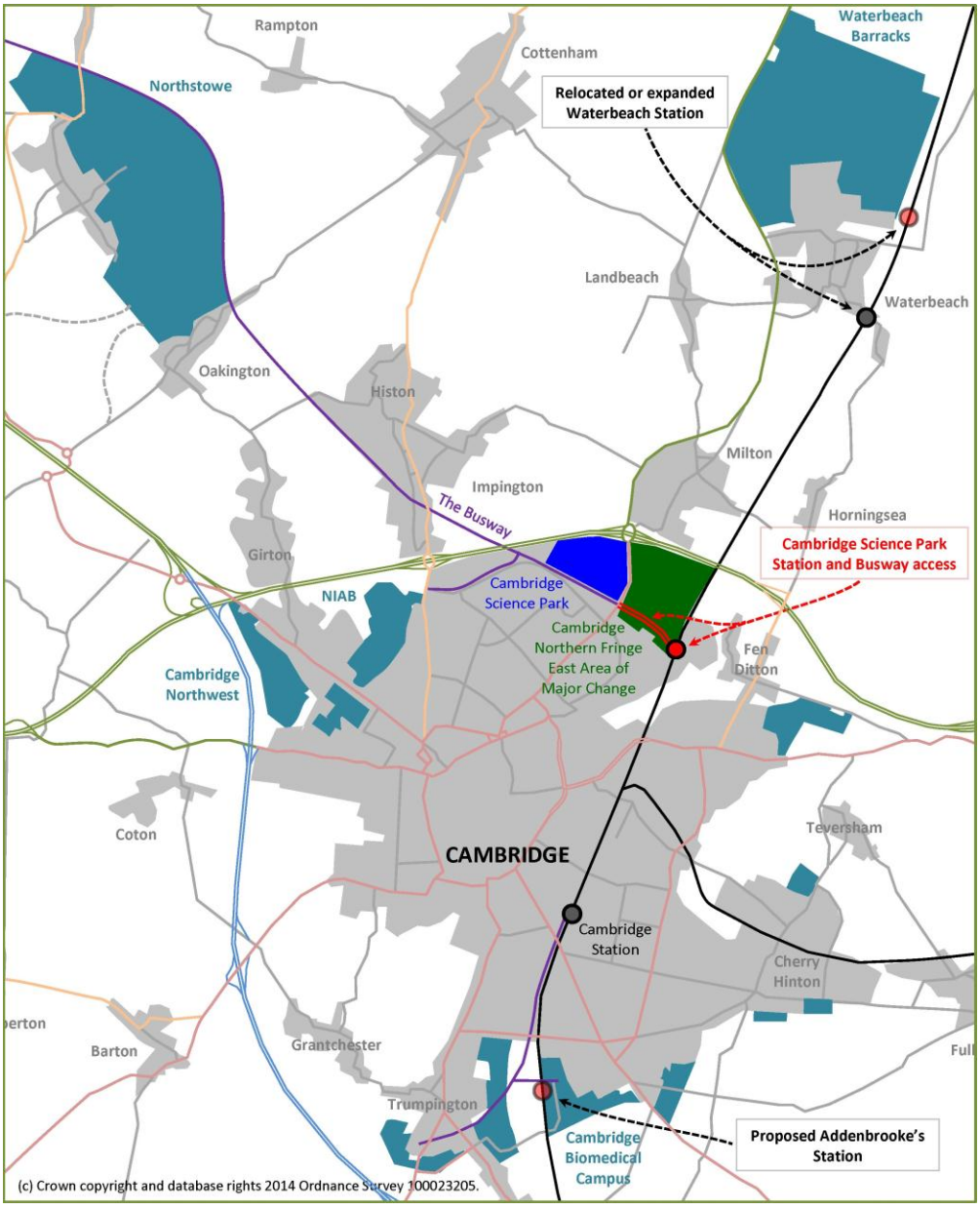
Cambridge Science Park station is a proposed new railway station on the site of the former Chesterton permanent way depot to the north of Cambridge. It is close to Cambridge Science Park and is immediately adjacent to the Cambridge North East Area of Major Change that is identified in the Cambridge Local Plan. The station location and major growth sites in the area that will benefit from it are shown in Figure 5.3.

The new station will have two through platforms and a bay platform, all of which will be capable of taking 260m long trains. A 450 space car and 1,000 cycle parking spaces will be provided. The new station building will have a green roof and use solar panels to generate electricity.

The station is forecast to be used by more than 850,000 passengers a year.

A separately funded scheme will provide busway access to the station from the junction of the existing Busway from St Ives and Northstowe on Milton Road.

Figure 5.3. Location of the proposed Cambridge Science Park Station



A further scheme (see below) will provide a new bridge over the River Cam to the south of the station as part of the Chisholm Trail cycle route, giving access to the station and to Science Park area from residential and employment areas in the east of the city.

Existing Situation

Cambridge Station is the busiest in the East of England, and one of the busiest stations in the country outside of London and the major metropolitan areas. Over 9,000,000 passenger movements were made at the station in 2013. The station struggles to cope with passenger numbers it was not designed for, and improvements are being implemented to address this. A new island platform has already been provided, and a major expansion of the ticket hall will commence in 2014. A new 3,000 space cycle park is also planned. However, with planned housing and employment growth in and around the city, there is a tremendous potential for a new station to generate new rail journeys and to provide a major element of the new transport capacity needed to cater for growth.

Visualisation of Cambridge Science Park Station

Scheme Benefits

Cambridge Science Park Station will deliver the following benefits:

- 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 for economic growth by improving the accessibility to the Science, Business and Innovation Parks in north east of Cambridge by rail.
- Improve the attractiveness of rail as an alternative to the private car for European and International trips, with direct access from north Cambridge to Eurostar at Kings Cross / St Pancras, to Stansted Airport and, from 2018 to Gatwick Airport.
- Reduce and manage congestion in north Cambridge, on the A14, the M11 and on the A10 north of Cambridge, by transfer of road trips to rail, bus and bicycle.
- Help to manage the congestion in Cambridge city centre by reducing the number of vehicles accessing the main Cambridge Station.
- Remove car trips from the Cambridge central area to release decongestion benefits and improvements to air quality and noise.

Figure 5.4. Journey times from Cambridge Science Park Station

Impact of scheme on LTP Objectives

Figure 5.5. Impacts of Cambridge Science Park Station

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

LTP3 Objective	Impact	Description
Meeting the challenges of climate change and enhancing the natural environment	Positive	• Reduced traffic in city leads to less congestion and reduced carbon dioxide 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
	Negative	• Loss of biodiversity on the station site.
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.

Current position (June 2014)

Consultation for the station was carried out in November 2012 and had nearly 1,300 responses. 90% of respondents supported the proposal in principle. Plans for the station were approved at a meeting of the Joint Development Control planning committee on 18 December 2013.

Visualisation of Cambridge Science Park Station

Network Rail will be delivering the main station within the Chesterton Sidings site, with completion in time for rail timetable changes in May 2016. The County Council is delivering the package of enabling and access works including the extension of the Busway, cycle improvements on Cowley Road and other pedestrian and cycle links, to be complete by March 2015, using £6M of funding from the Department for Transport.

A142 Ely Southern Bypass

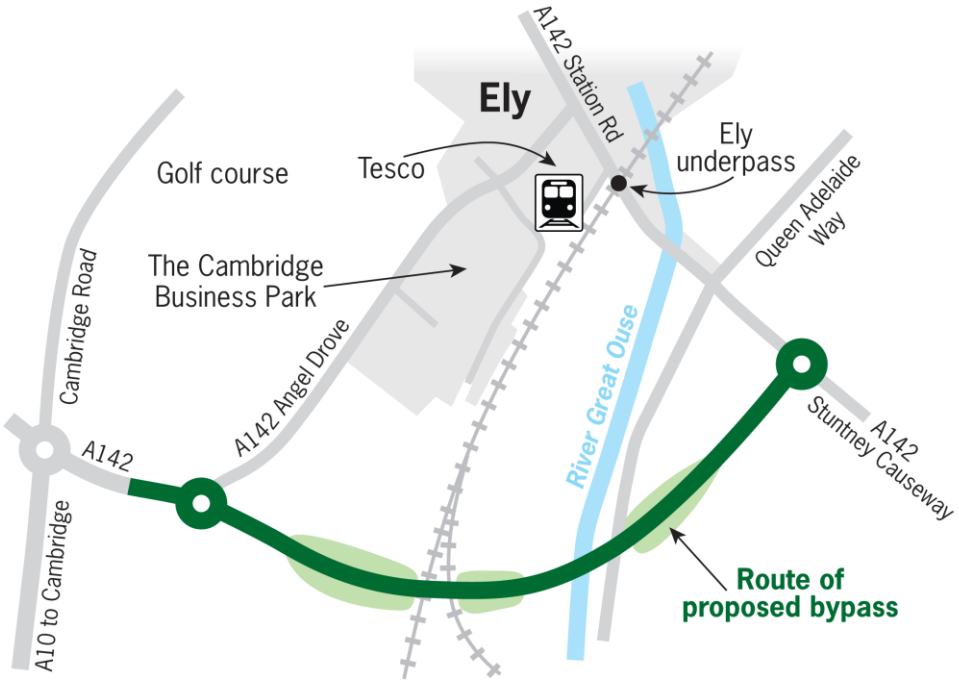
The proposed Ely southern bypass will be a new 1.7km road connecting the A142 at Angel Drove to Stuntney Causeway with bridges over the Ely to Cambridge and Ely to Ipswich railway lines and the River Great Ouse and its floodplains. Figure 5.6 shows the proposed alignment of the bypass.

Existing Situation

The City of Ely lies on the east-west A142 Primary Road between Newmarket and Chatteris. This road carries around 15,000 vehicles per day to the south of Ely, 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.

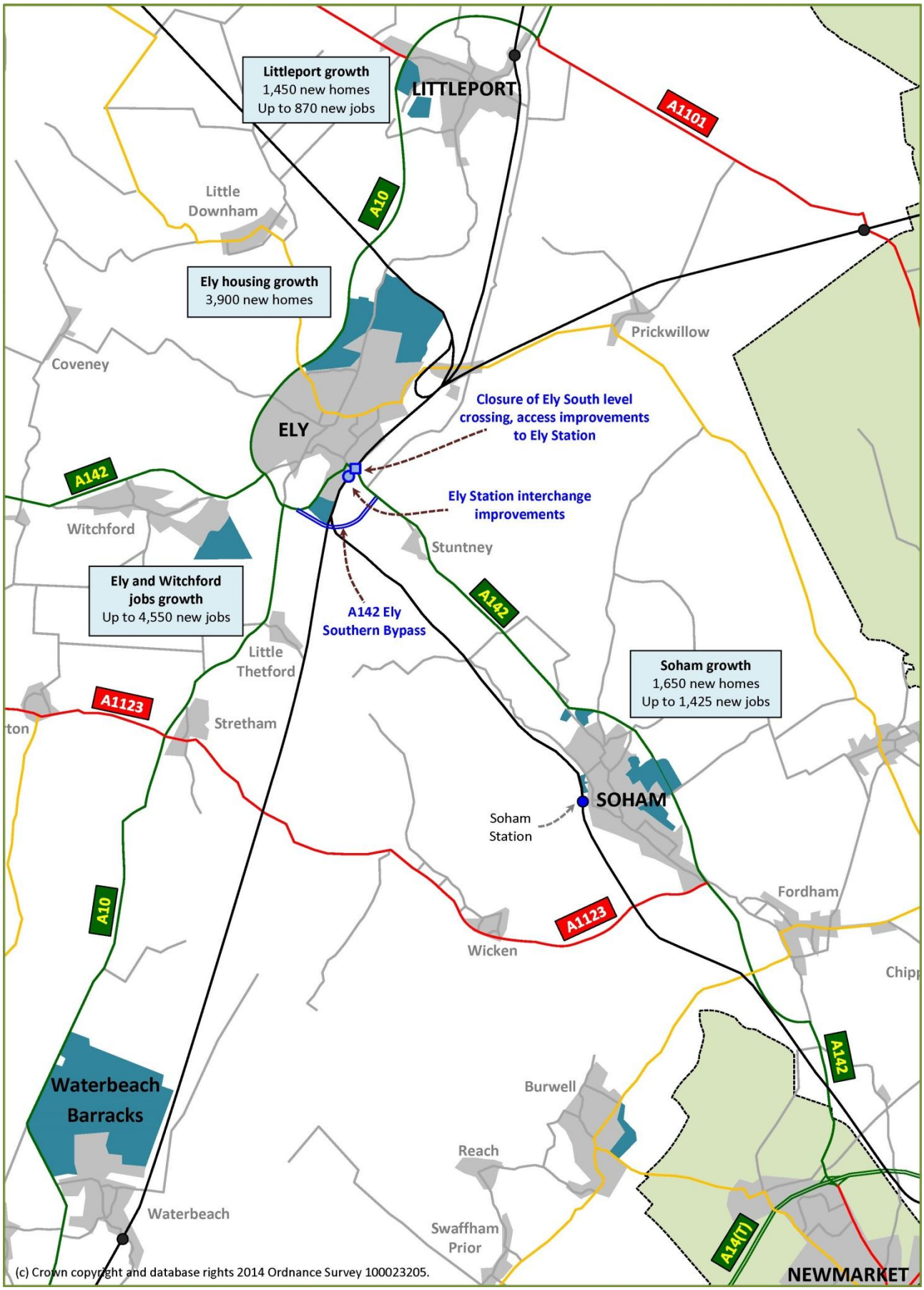
Figure 5.6. Alignment of the proposed Ely Southern Bypass



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, it will provide 24 paths for freight trains in each direction per day. By 2031, further works will have enabled a further 30 paths in each direction per day. There are also plans to increase the frequency of passenger services to Cambridge, Ipswich, Peterborough, Kings Lynn, Norwich and Stansted Airport that travel through Ely. Additional trains will result in more and longer level crossing closures, thus increasing congestion and delay on the A142 and in the Ely Station area.

The low 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 maintenance costs are high.

Figure 5.7. Ely Southern Bypass and the wider transport network



Scheme Benefits

The Ely Southern Bypass will deliver the following benefits:

- **Relieving congestion and improving safety.**
  - The new bypass will significantly reduce congestion and delays at the level crossing and remove a significant amount of traffic from the station area.
  - It will improve safety on both the road and rail networks, and the cost to the rail industry of bridge / level crossing strikes, and of managing the crossing.
- **Improving transport for all.**
  The new bypass will improve travel conditions in and around Ely for motorists, cyclists, pedestrians and bus users by:
  - Reducing journey times between A10 and Stuntney Causeway by 56%
  - Reducing delays for motorists leaving the station by 50% at peak times
  - Increasing opportunities for walking and cycling
  - Improving the reliability of bus services
- **Providing a new walkway and new pedestrian and cycle routes.**
  - As part of the new road bridge over the River Great Ouse, there will be a walkway attached immediately underneath facing Ely, for pedestrians and cyclists.
  - The walkway will link the Fen Rivers Way and Ouse Valley Way footpaths together, providing a new circular walking route for residents and visitors to Ely. It will also improve access to the River Great Ouse Country Wildlife Site and give new views of Ely and its surrounding landscape.
  - The cost of the walkway is included in the price of the bypass. It is planned to be constructed out of a steel frame with wooden boarding.
  - Improved pedestrian and cycle links between Ely and Stuntney.
- **Encouraging growth and supporting local businesses.**
  - By reducing congestion around the station and improving transport links, the bypass will assist plans by East Cambridgeshire District Council to enhance the Ely Station area and bring in new businesses to the area.
  - The bypass will improve access to the city centre, business areas and station by reducing through traffic. This will in turn encourage growth and boost the local economy, making Ely a more attractive place to live and work.

Visualisation of the Ely Southern Bypass scheme

Impact of scheme on LTP Objectives

Figure 5.8. Impacts of Ely Southern Bypass

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

Current position (January 2015)

The county council's planning committee unanimously approved the scheme on 8 September 2014. A holding direction (which prevents consent from being granted without the Secretary of State for Communities and Local Government specific authorisation) was removed on 25 September 2014, confirming the planning consent.

The indicative cost of the scheme is £35M, of which £6M has been allocated as a contribution from the Local Transport Body's priority scheme funding.

The low bridge and level crossing on the A142 to the north of Ely Station.

Growth Deal funding of £16M from the Greater Cambridge Greater Peterborough Enterprise Partnership was announced by Government on 29 January 2015. The remaining funding for the scheme will come from Network Rail, Community Infrastructure Levy and from the County Council.

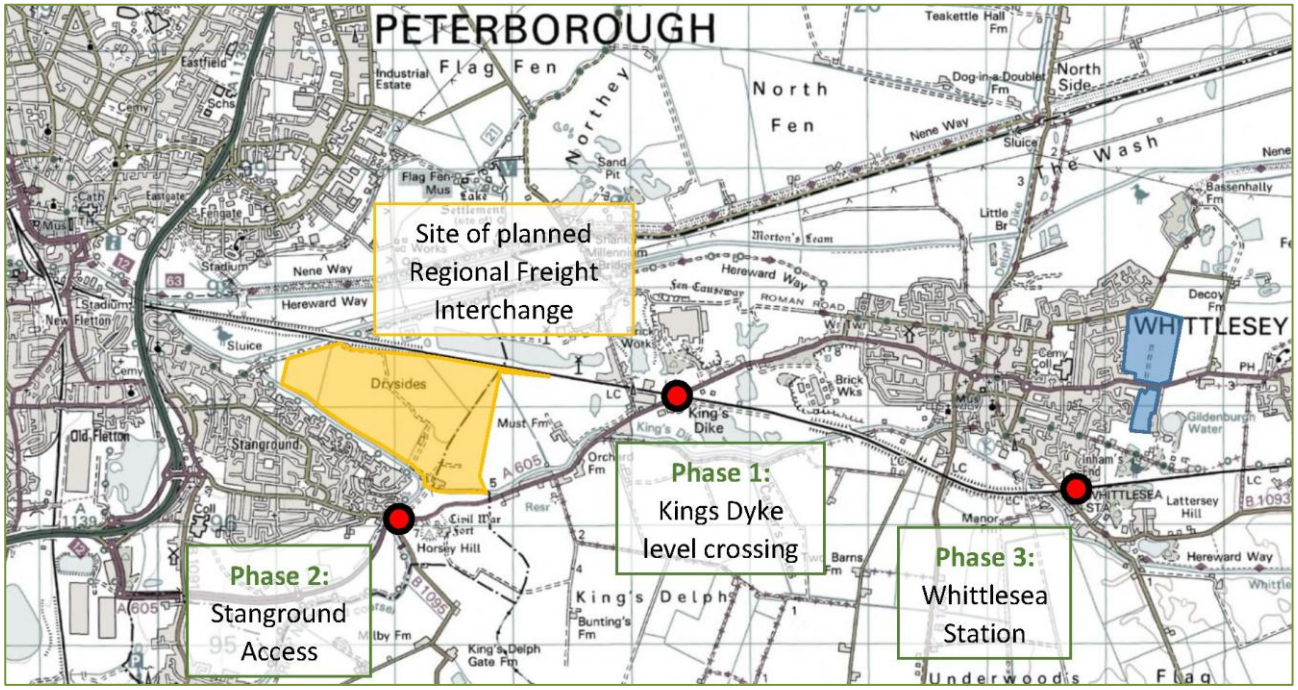
Whittlesey Access Phase 1: A605 Kings Dyke level crossing

The Whittlesey Access proposals consist of three phases, listed below and shown in Figure 5.9:

- **Phase 1:** A605 Kings Dyke level crossing.
- **Phase 2:** Stanground Access (*scheme in Peterborough*).
- **Phase 3:** Whittlesea Station improvements.

The Kings Dyke level crossing scheme involves provision of infrastructure to enable the closure of the Kings Dyke level crossing on the A605 between Whittlesey and Peterborough. The closure would be facilitated by providing a bridge or underpass for the A606 across the Peterborough to Ely railway line, and connecting links.

Figure 5.9. Phases of the Whittlesey Access scheme



Existing Situation

The level crossing on the A605 at King's Dyke to the west of Whittlesey has long been an issue locally due to the downtime of the barriers, and the subsequent delay caused to traffic travelling to and from Peterborough through the town. During the peak periods, the barrier is typically down for 11-15 minutes out of each hour. There are currently 95 to 100 train movements per day through the level crossing, of which 80 are passenger trains and 20 are freight trains.

Rail industry plans, which are strongly supported by the County Council, suggest that train movements on the Peterborough to Ely line will increase significantly in the future. The number of passenger train movements is likely to increase to around 130 each day. The Felixstowe to Nuneaton freight route improvements will ultimately raise the capacity for freight trains on the line to around 112 each day. Combined, this means that by 2031 there could be up to 242 trains using the crossing each day; an increase of around 150 per cent.

Over 11,000 vehicles a day currently use the A605 at King's Dyke, and there are already significant delays from the barriers being down. The implications for road traffic congestion

of an increase of barrier down time to between 27 and 38 minutes in each hour would be severe and would hamper the economic growth in the area.

Scheme Benefits

The A605 Kings Dyke level crossing scheme will deliver the following benefits:

- Reductions in journey times and congestion on the A605 will reduce costs for travellers and businesses in and around Whittlesey.
- The accessibility of Whittlesey from the west will be improved, increasing its attractiveness as a place to live, work and do business.
- Accessibility to employment premises to the north and south of the railway on Funthams Lane will be significantly improved.
- The reliability of rail services on the route between Ely and Peterborough will be improved with the removal of incidents of level crossing strikes.
- The safety of both the road and rail networks will be improved with the removal of the level crossing.

Impact of scheme on LTP Objectives

Figure 5.10. Impacts of the A605 Kings Dyke level crossing scheme

LTP3 Objective	Impact	Description
Managing and delivering growth	Positive	• 1,000 new homes are planned for Whittlesey. The scheme will help ensure that congestion is not seen as a disincentive for investment in jobs and employment growth in the town.
Promoting improved skill levels and economic prosperity across the county, helping people into jobs and encouraging enterprise	Positive	• Whittlesey's economy is intrinsically linked with that of Peterborough, and population growth in the town supports new jobs growth in the city, including at a planned Regional Freight Interchange on the east of the city, around two and a half miles from Whittlesey.
Meeting the challenges of climate change and enhancing the natural environment	Positive	• The scheme supports greater use of rail for freight and by passengers. • The scheme will ensure that the negative environmental impacts of congestion at the level crossing due to increased train movements will be avoided.
	Negative	• Potential for visual intrusion on properties closet to the bridge or underpass, particularly if a bridge solution is chosen.
Enabling people to thrive, achieve their potential and improve their quality of life	Positive	• The scheme will enhance accessibility to and from Whittlesey by both road and rail, broadening options for residents.
Supporting and protecting vulnerable people	Positive	• The scheme will markedly improve safety of the road and rail users, and pedestrians and cyclists who use the crossing, and will improve the accessibility to and from the town for all residents.

Current position (June 2014)

An Option Assessment Report (OAR) is currently being prepared. Options being considered include bridge and underpass solutions on the current A605 alignment and off-line alignments to both the north and south. Options will be assessed, and the OAR and a shortlist of options will be the subject of public consultation. Following the consultation, county councillors will be asked to approve a single option to be taken forward through design and planning.

The Kings Dyke level crossing

We envisage that subject to satisfactory completion of planning processes, and the assembly of the necessary funding package, scheme delivery could commence in mid-to-late 2015.

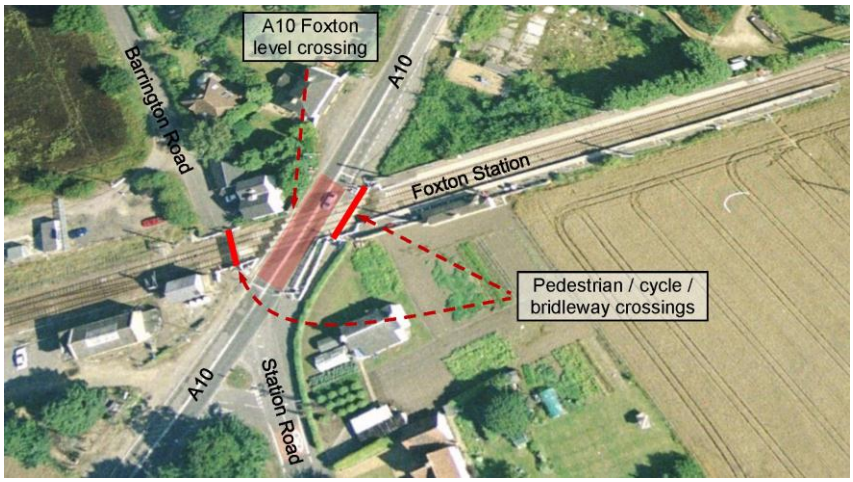
The total scheme cost for the A605 Kings Dyke level crossing scheme is estimated at £13.2M. A funding package for the scheme is being assembled:

- The Local Transport Board will contribute £3M.
- A bid for £5M Growth Deal funding has been submitted.
- The remaining £5.2M will be funded by:
  - Network Rail.
  - CIL / S106 developer funding.
  - Cambridgeshire County Council capital funding or prudential borrowing.

A10 Foxton level crossing

The A10 Foxton level crossing scheme involves provision of infrastructure to enable the closure of the level crossing on the A10 to the immediate south of Foxton Station. The closure will be facilitated by providing a bridge or underpass for the A10 on a bypass alignment to the north west of the existing road. A pedestrian bridge or underpass at Foxton Station will also be provided as part of the scheme.

Existing Situation



Aerial view of the level crossing and Foxton station

Around 12,000 vehicles a day use the A10 at Foxton. At the point where the Cambridge to Royston railway line crosses the A10, there are three at-grade crossings of the track; one for the road, and two pedestrian / cycle / bridleway crossings. The road crossing causes some congestion on the A10, particularly in peak periods. However, of greater concern are the safety problems that are present. The road crossing has full barriers that are controlled from the signal box to the south west of the crossing. Only when the barriers have been lowered will controllers at the Cambridge signal box clear the signals for trains to pass through the crossing. A train will always be able to stop before the crossing at the point at which the barriers are lowered, to lower the risk of collision. The adjacent pedestrian / cycle / bridleway crossings have magnetic locking mechanisms and are also controlled from the Foxton signal box.

While the crossing has been engineered to be as safe as possible for its location, there are still safety risks associated with it. The location of Foxton Station adjacent to the A10, and the lack of a station footbridge means that there are high flows on the eastern pedestrian / cycle / bridleway crossing. The crossings can be closed for several minutes at a time, which can tempt vehicular traffic to cross when the warning lights are operational, and on occasion, when the barriers are lowering. There have also been instances when pedestrians have been caught within the barriers when a train is passing, notwithstanding the visual checks that are made from the signal box.

Scheme Benefits

The A10 Foxton level crossing scheme will deliver the following benefits:

- The safety risks associated with the use of the pedestrian / cycle / bridleway crossings will be eliminated.
- The safety of both the road and rail networks will be improved with the removal of the level crossing.
- The provision of pedestrian / cycle / bridleway crossings across both the railway and the A10 will reduce the severance between Foxton and Barrington that is caused by the difficulty of crossing the busy A10.
- The reliability of services on the railway between Cambridge and London Kings Cross will be improved with the removal of incidents of level crossing strikes and near misses.

- Reductions in journey times and congestion on the A10 will reduce costs for travellers and businesses.

Impact of scheme on LTP Objectives

Figure 5.11. Impacts of the A10 Foxton level crossing scheme

LTP3 Objective	Impact	Description
Managing and delivering growth	Positive	• The proposals will improve accessibility to major growth sites on the southern fringe of Cambridge from the Royston to Cambridge corridor. The will also improve access from Foxton onto the A10. • The proposals will improve access to Foxton Station from the A10, creating opportunity for more rail trips into Cambridge and Cambridge Science Park station from the south.
Promoting improved skill levels and economic prosperity across the county, helping people into jobs and encouraging enterprise	Positive	• Will improve journey times on the A10 South corridor to access jobs by both road and rail • Shorter journey times will reduce costs for travellers and businesses.
Meeting the challenges of climate change and enhancing the natural environment	Positive	• Reduce emissions from stationary vehicles waiting at the level crossing.
	Negative	• Potential for visual intrusion on properties closet to the bridge or underpass, particularly if a bridge solution is chosen.
Enabling people to thrive, achieve their potential and improve their quality of life	Positive	• The scheme will enhance accessibility to and from settlements on the Royston to Cambridge corridor by both road and rail, broadening options for residents.
Supporting and protecting vulnerable people	Positive	• Will improve the safety of pedestrians and cyclists by removing the level crossing and improving access to the station.

Current position (June 2014)

A GRIP 2 study has been completed and work is now progressing to GRIP 3. This work will identify the preferred option to be taken forward. Cost estimates for the scheme are:

- £11.6 Million for an overbridge
- £19.2 Million for an underpass
- £2.3 - £4.5 Million for a pedestrian / cycleway crossing at the station.

Subject to the availability of funding, Network Rail will seek to deliver the scheme by March 2019.

Foxton Station and the level crossing on the A10. (Paul Hollinghurst, Meldreth, Shepreth and Foxton Rail User Group)

Soham Station

It is proposed to build a new station for Soham on the line between Ipswich and Ely, at the site of the old station in the town. The proposals include:

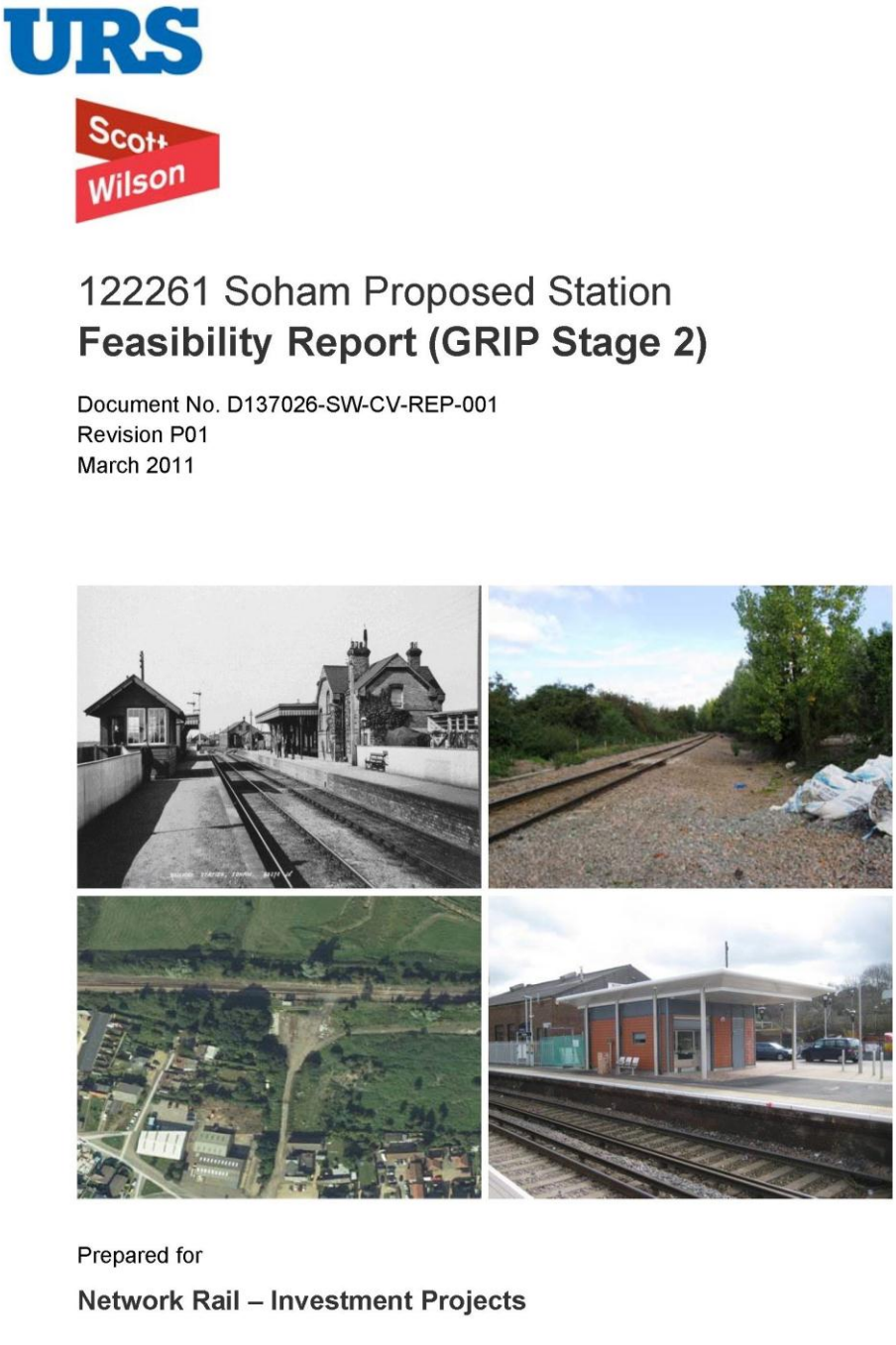
- Two 105m long platforms on a doubled track through the old station site, capable of taking a four / five carriage train.
- A new modular station building for a manned station or a shelter containing ticket machines for an unstaffed station.
- A Disability Discrimination Act compliant station footbridge.
- Parking for 50-75 cars and cycle parking provision.
- Site access works.

Existing Situation

The original Soham Station was opened in 1879, was destroyed by an exploding munitions train in 1944, reopened, and eventually closed in 1965. Since the station closed, Soham has grown markedly, and had a population of around 10,000 in 2011. Planned growth is likely to take the population of the town to around 18,000 by 2031.

Work undertaken by the County Council in partnership with Network Rail and East Cambridgeshire District Council established that a new station could be provided at the former station site, and the likely cost of delivery of various options.

Further work undertaken by the Cambridgeshire, Norfolk and Suffolk County Councils looked at the wider economic benefits of



Soham Station Feasibility Report (GRIP Stage 2)

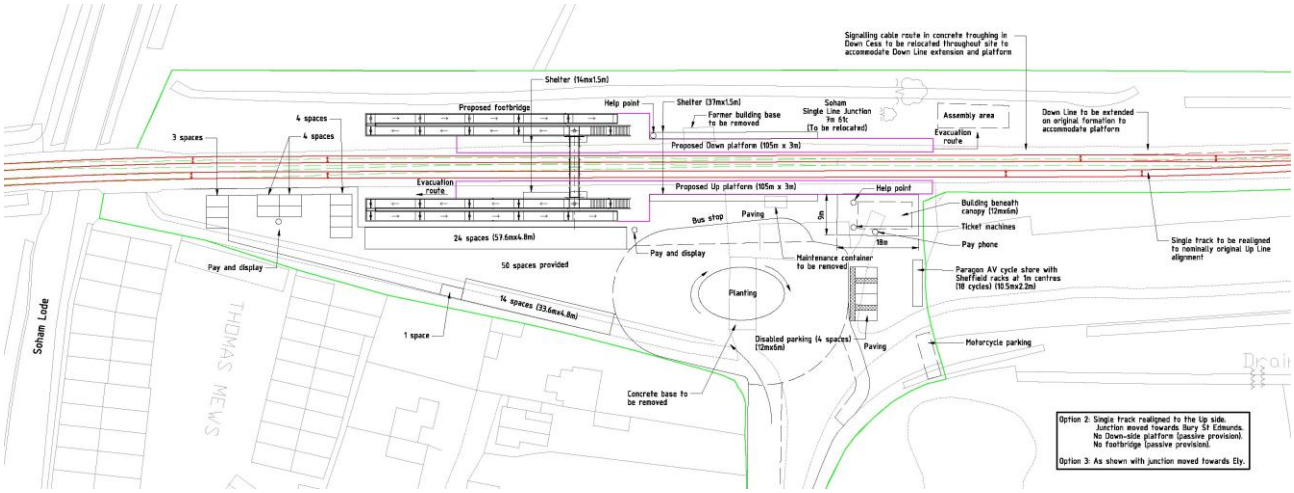
increasing the frequency of rural services between Kings Lynn and Cambridge, Norwich and Cambridge and between Ipswich and Peterborough. This work also looked at the wider benefits that would be generated by a station at Soham. Combined, these pieces of work indicated that a two platform station served by an hourly service would generate a positive revenue case for investment, and would generate wider economic benefits.

Further work to look at the Benefit to Cost Ratio that a scheme would attract indicates that a lower cost bus option would have a higher BCR, but would have a significantly lower Net Present Value and significantly higher operating costs. Taken with the wider economic benefits a station would bring, a new station for Soham is being taken forward as a major scheme, and a funding package is being developed.

Scheme Benefits

Soham Station will deliver the following benefits:

- **Relieving congestion and improving accessibility.**
  - The scheme will help reduce congestion along the A142 between Ely, Soham and Newmarket, a route already under traffic pressure, which is likely to worsen if sustainable alternatives to the private car are not provided, given the level of growth planned in Ely and Soham.
- **Generating rail trips and income for the rail industry.**
  The station will generate revenue for the rail industry.
  - With an hourly service pattern on the route between Ipswich and Peterborough, around 1.35M new rail passenger trips would be generated by the station over a 15 year period. This would generate around £6.88M net revenue for the rail industry.
- **Encouraging growth and supporting local businesses.**
  The Station will support planned growth in and around the town:
  - The project will support the delivery of 1,655 new homes in the town by 2031.
  - It will contribute to the wider regeneration proposals for the Mereside area in Soham including the provision of new homes and office space which could lead to the creation of approximately 125 high-tech jobs.
  - The station will lead to an estimated 0.5% increase in property values in the town; a total increase in value of around £4M.
  - The station has potential to stimulate increased tourism activity, for example as an access point to Wicken Fen.



Extract from plan showing Options 2 and 3 from the Feasibility Report (GRIP 2)

Impact of scheme on LTP Objectives

Figure 5.12. Impacts of Soham Station

LTP3 Objective	Impact	Description
Managing and delivering growth	Positive	• Will provide significantly improved accessibility to rail network for residents of Soham, including to employment growth sites in Cambridge and Peterborough. • Will support significant housing growth in Soham, and is likely to encourage business growth in the town.
Promoting improved skill levels and economic prosperity across the county, helping people into jobs and encouraging enterprise	Positive	• Rail services will improve accessibility from Soham to Cambridge, Ely, Peterborough and beyond, widening employment opportunities for residents and enabling new business connections for employers in the town. • Reduced traffic on the A142 will lead to reduced congestion, benefiting the local economy
Meeting the challenges of climate change and enhancing the natural environment	Positive	• Reduced traffic on the A142 will lead to less congestion and reduced carbon dioxide emissions. • Significantly improved sustainable transport access from Soham.
Enabling people to thrive, achieve their potential and improve their quality of life	Positive	• Will provide significantly improved accessibility to rail network for residents of Soham, including to employment growth sites in Cambridge and Peterborough. • Station will fully conform to the Disability Discrimination Act standards
Supporting and protecting vulnerable people	Positive	• Secure station accreditation will be sought • Station will fully conform to the Disability Discrimination Act standards

Current position (June 2014)

A Feasibility Report (GRIP Stage 2) has been completed, and has identified that a two platform station on a double track alignment is likely to be the option that is taken forward. Work is progressing to undertake Option Selection (GRIP 3). This is taking place alongside work led by Network Rail to undertake the doubling of the line between Soham and Ely, which will be delivered by 2019 at the latest. The preferred option for delivery of the station would be to carry out the works at the same time as the doubling, which should enable disruption to rail services during construction to be minimised.

The indicative cost of the scheme is £6.2M, of which £1M has been allocated as a contribution from the Local Transport Body's priority scheme funding. A Growth Deal bid for an additional £3.7M has been submitted from by the Greater Cambridge Greater Peterborough Enterprise Partnership as part of their Strategic Economic Plan. The remaining funding for the scheme will come Community Infrastructure Levy, S.106 and from the District and County Councils.

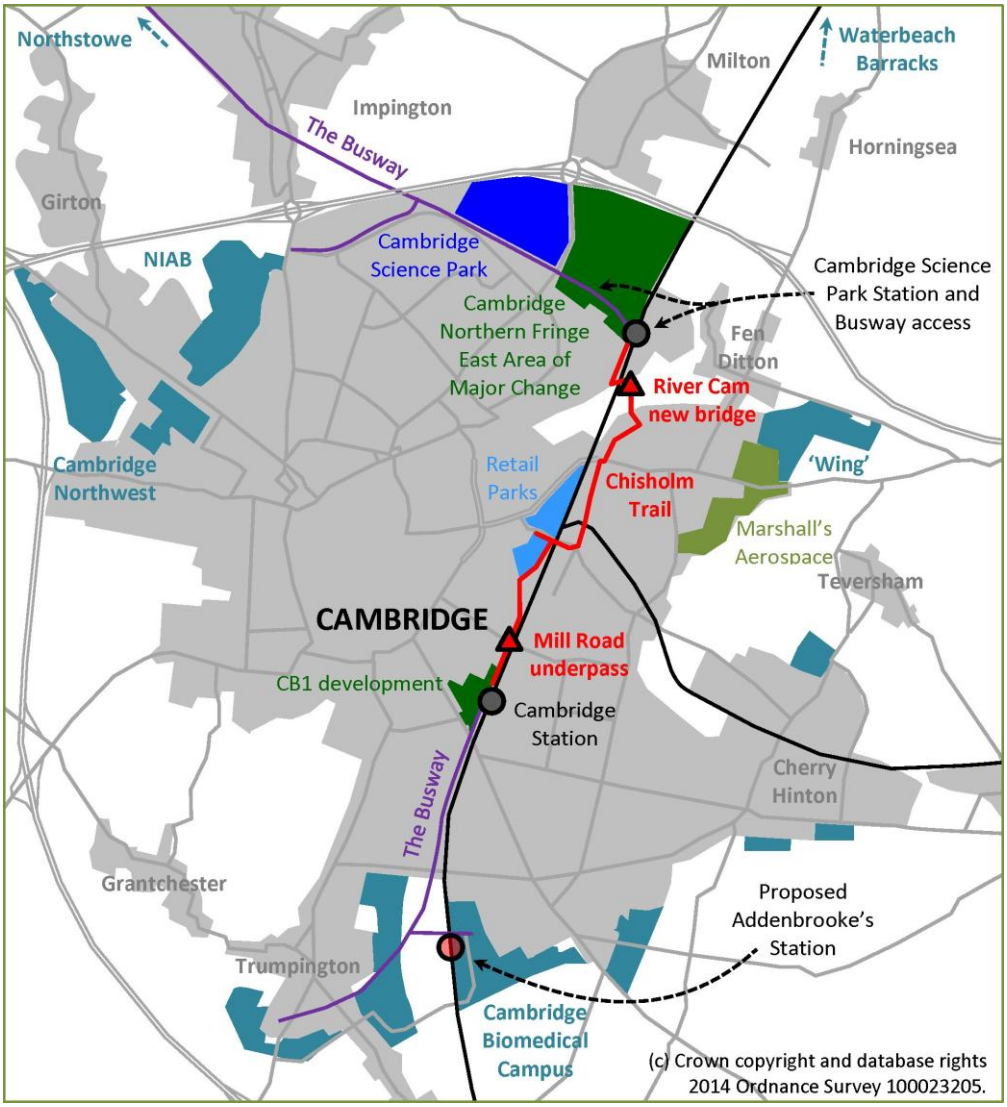
Chisholm Trail cycle route, Cambridge

The Chisholm Trail is a proposed north – south pedestrian / cycle route through Cambridge, broadly following the line of the Cambridge to Ely railway line between the new Cambridge Science Park Station (see above) and Cambridge Station. The scheme includes a new bridge over the River Cam in Chesterton, and the use of an arch of the Mill Road Bridge over the railway to take the trail under Mill Road and into the Cambridge Station area. The route is shown in Figure 5.13, along with growth sites and key destinations that would benefit from it.

Existing Situation

There is currently relatively poor north – south linkage of cycle routes across Cambridge. While a number of high quality facilities are in place, when considered as a network there are often pinch points, missing links or detours away from desire lines.

Figure 5.13. The Chisholm Trail cycle route



There is great potential for more trips pedestrian and cycle trips between key destinations in the city if comprehensive high quality links can be provided.

With a the new Cambridge Science Park Station, there is an added impetus to provide the Chisholm Trail, as the new station will be nearer to many areas in the east and north east of the city as the crow flies than Cambridge station. The Chisholm Trail will allow for a far more direct trip to the station, and to the Science Park than in currently possible from these areas. Pedestrians and cyclists currently have to take longer, less direct routes to reach their destinations, in some cases on heavily trafficked roads.

Scheme Benefits

The Chisholm Trail will deliver the following benefits:

- **Relieving congestion and improving accessibility.**
  The Chisholm Trail will provide a high quality link that facilitates direct and convenient pedestrian and cycle trips:
  - The river crossing over the Cam is estimated to will take an average of 3,000 pedestrian and cycle trips (with a top estimate of 5,000 trips per day).
  - The scheme will reduce congestion levels of congestion on alternative road routes for many trips.
  - The scheme will provide more convenient and safer options for pedestrians and cyclists in many areas.
- **Safe and high quality links to key locations in and around Cambridge, including:**
  - Cambridge Science Park and the cluster of surrounding Business Parks and Innovation Centres.
  - Cambridge Science Park Station and the 'Area of Major Change' to the north of the station that is identified in the Cambridge Local Plan for development.
  - Cambridge Regional College.
  - Marshalls Aerospace.
  - The Coral Park and Beehive retail / industrial parks.
  - Employment areas off Newmarket Road in east Cambridge.
  - The 'Wing' development in east Cambridge.
  - Cambridge Station and the CB1 development around the station.
  - Addenbrooke's and the Cambridge Biomedical Campus (via the southern Busway cycle route).
  - Northstowe and St Ives (via the northern Busway cycle route).
  - Milton and Waterbeach (via the Haling Way cycle route)

Arch of the Mill Road bridge under which it is planned to take the Chisholm Trail into the Cambridge Station area.

- **Encouraging growth and supporting local businesses.**
  The Chisholm Trail will support economic and housing growth at:
  - Cambridge Science Park and the surrounding Business Parks and Innovation Centres, where there is capacity for up to 3,600 new jobs.
  - The Cambridge Northern Fringe East 'Area of Major Change' to the north of the new Cambridge Science Park station.
  - The CB1 development around Cambridge Station.
  - Housing growth at the Wing site in east Cambridge (over 1,000 new homes).

Impact of scheme on LTP Objectives

Figure 5.14. Impacts of the Chisholm Trail

LTP3 Objective	Impact	Description
Managing and delivering growth	Positive	• Supports jobs growth in the station area and in the north of the city. • Directly supports housing growth in east Cambridge. • By providing new transport capacity supports wider growth across the city.
Promoting improved skill levels and economic prosperity across the county, helping people into jobs and encouraging enterprise	Positive	• Improves access to jobs in north and east Cambridge and at the Cambridge Biomedical Campus, and more widely across the county via the rail network
Meeting the challenges of climate change and enhancing the natural environment	Positive	• Supports walking and cycling as sustainable modes of transport • Reduces congestion
	Negative	• Potential for biodiversity impacts.
Enabling people to thrive, achieve their potential and improve their quality of life	Positive	• Will provide a safer and more convenient route for cyclists • Will encourage active travel and therefore the associated health benefits
Supporting and protecting vulnerable people	Positive	• Will provide a safer route for cyclists way from traffic

Current position (June 2014)

The Chisholm Trail project will be part funded by City Deal, with additional funding from developers. In addition, a bid for Growth Deal funding has been submitted for the bridge over the River Cam. It is anticipated that public consultation will be undertaken on detailed proposals in late 2014, and that construction of sections of the route could commence in late 2015.

The cycle bridge over the River Cam will be located to the east of the railway bridge, and will link to the Haling Way and Cambridge to Newmarket cycle routes on either side of the river.

The northern section of the route could be open in late 2016, but it is likely that the section between Hooper Street and Cambridge Station (including the use of an arch in the Mill Road rail bridge for the cycle route) will come later. This section of the route relies on the availability of Network Rail land and land from Cambridge City Council's Mill Road depot site, which is currently occupied, but is to be developed for housing.

6. Programme and funding

This chapter provides summary detail of the funding environment and the process for developing the transport programme. It sets out the overall funding position for transport in Cambridgeshire, the implications of reduced levels of core funding, and the potential opportunities to bring in more resources to provide the transport infrastructure and services required in the County, and to maintain the transport network.

The LTP Transport Delivery Plan contains a detailed rolling transport programme that looks two to three years ahead. It also contains a detailed commentary on the longer term programme of major schemes that are planned for delivery.

Core funding of transport functions

Capital funding from government for integrated transport improvements and for maintenance of the local transport network

The Integrated Transport block is specific funding from central government for small and medium sized transport improvements. Government also allocates capital funding directly for structural maintenance of the transport network.

The current funding challenge facing local councils is unprecedented and could, if new funding is not identified, severely impact on our ability to deliver transport improvements. Figure 6.1 shows Integrated Transport block and Maintenance block capital funding from the Department for Transport over the period since Cambridgeshire's first LTP was adopted in 2001/02.

Figure 6.1. Integrated Transport and Maintenance funding allocations for Cambridgeshire in the LTP1, LTP2 and LTP3 periods

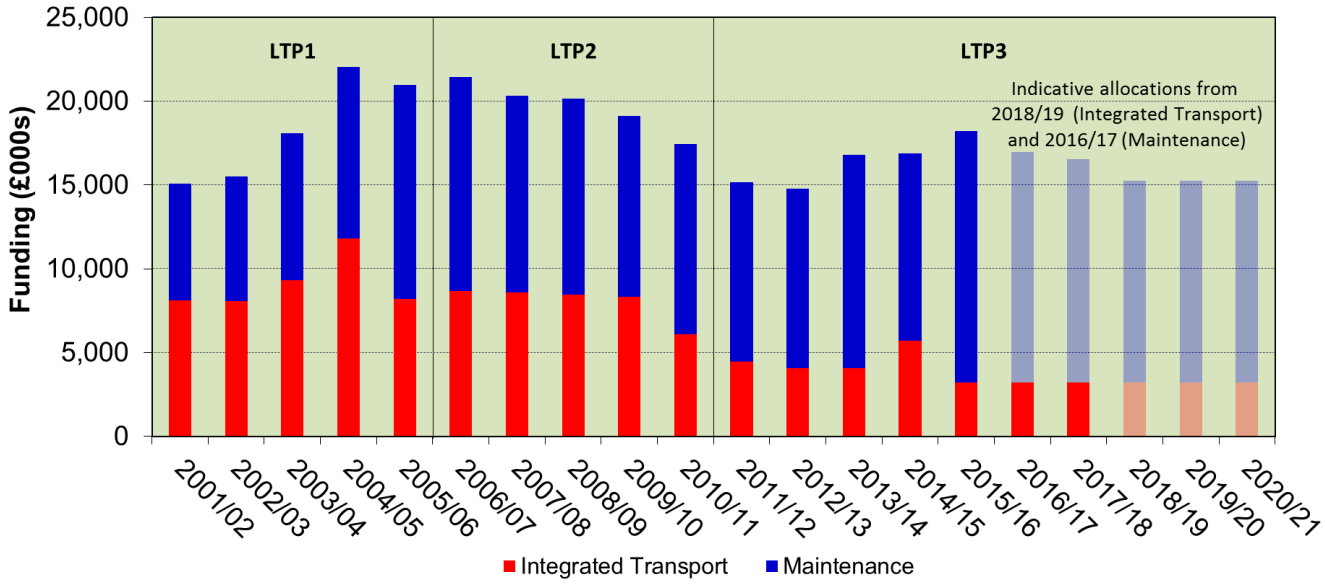


Figure 6.2 summarises the core capital funding for transport in the first seven years of the LTP3 plan period and the indicative funding for the three years from 2018/19.

In absolute terms, Integrated Transport block funding for Cambridgeshire in the 10 years to 2020/21 is likely to be around 60% less per year than was the case in the LTP2 period. Accounting for inflation in road construction costs, the reduction in spending power since

LTP1 was adopted in 2001 from this source will be over 75% in 2015/16. The contribution of Integrated Transport block funding to the delivery of our transport programme will be somewhat limited.

Maintenance block funding was also reduced in the first four years of the LTP3 period, but is increasing in 2015/16. Core funding from 2016/17 to 2020/21 will drop from 2015/16 levels, but may be supplemented by an incentive element that will be based on efficiency and asset management. A challenge fund for major maintenance schemes will also be available for six years from 2015/16.

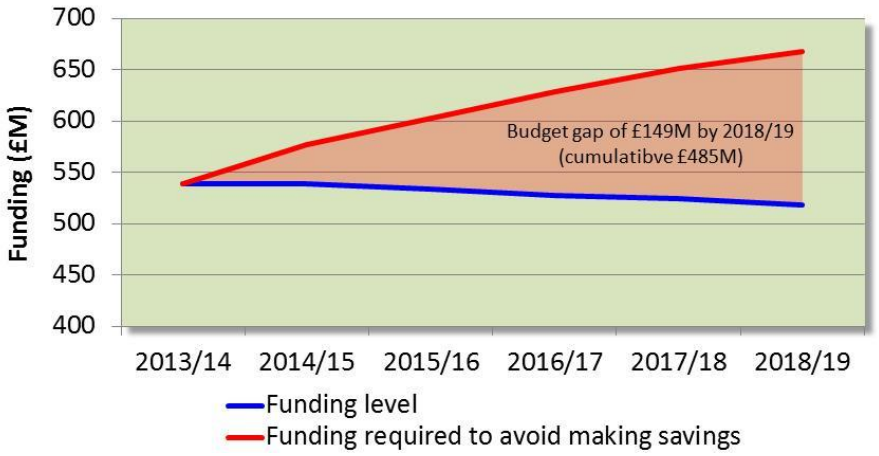
Figure 6.2. Government core capital funding for LTP3, 2011/12 – 2014/15

Programme Area	LTP2 average (£000s)	Funding allocations (£000s)				
		2011/12	2012/13	2013/14	2014/15	2015/16
Integrated Transport Block	8,431	3,805	4,059	4,059	5,707	3,190
Additional IT block award	-	634	-	-	-	-
Maintenance block	12,321	10,712	10,695	10,801	10,144	15,008
Additional Maintenance block award	-	-	-	1,949	1,040	-
Total	**20,752**	**15,151**	**14,754**	**16,809**	**16,891**	**18,198**
Programme Area		**Funding allocations (£000s)**		**Indicative allocations (£000s)**		
		2016/17	**2017/18**	**2018/19**	**2019/20**	**2020/21**
Integrated Transport Block		3,190	3,190	3,190	3,190	3,190
Additional IT block award		-	-	-	-	-
Maintenance block		13,758	13,342	12,076	12,076	12,076
Additional Maintenance block award		-	-	-	-	-
Total		**16,948**	**16,532**	**15,266**	**15,266**	**15,266**

Revenue funding of transport functions

In additional to the capital funding noted above, significant expenditure on a number of transport functions is undertaken from revenue funding provided to the County Council by the Department for Communities and Local Government.

Figure 6.3. Pressure on overall County Council budgets



Funding from this source is not ring fenced, and supports the widest range of council functions, including education and social care. Many of the functions

across the council that are funded from this source are not discretionary, so reductions in funding disproportionately fall on those functions where the council does have discretion as to whether it carries them out.

In the transport field, funding is used to provide a number of services including routine network maintenance (such as pothole filling and gully emptying), winter maintenance, education and social services transport, street lighting and subsidised bus services.

Funding from this source has been significantly cut since 2010, and further cuts are expected in future years. Combined with demographic pressures, this will lead to a funding gap of up to £149M[18] (cumulative £485M) by 2018/19 if further cuts are not made as shown in Figure 6.3. There will be significant further cuts to revenue transport budgets.

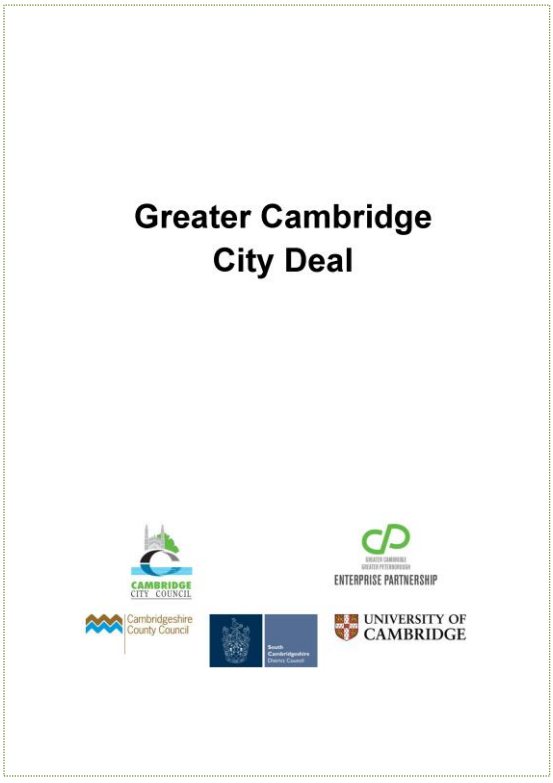
Other sources of funding for local transport

Given the challenging financial climate and the massive growth that is planned, over the lifetime of this LTP it will be particularly important to obtain funding from a wide range of sources to improve the transport network and transport services. With the agreement of a City Deal with government, we are reasonably well placed to address growth and the need for new transport capacity in Cambridge and South Cambridgeshire, but even here, a funding gap remains. In the rest of the county the funding situation is far less clear, and we need to look at different ways of making the case for vital transport investment. Funding sources that will or could be available to help deliver our strategy are set out below:

City Deal

On 19th July 2014, a City Deal was agreed with government for Cambridge and South Cambridgeshire. The deal will provide up to £500M of grant funding to be spent on transport infrastructure to support economic and housing growth that is planned for the area. The City Deal partners are Cambridgeshire County Council, Cambridge City Council, South Cambridgeshire District Council, the Greater Cambridge Greater Peterborough Enterprise Partnership and the University of Cambridge.

A first tranche of £100M will be available to be spent on transport infrastructure in the five years from 2015/16. The release of two further tranches of £200M apiece will depend on the City Deal partners meeting triggers on delivery and economic performance that are to be agreed with government.



The City Deal document

A Joint Authority covering Cambridge and South Cambridgeshire will be established and will have responsibility for the City Deal programme and for planning and transport matters in the city and district.

[18] Figures from the County Councils' Business Plan 2014 to 2015 (section 3, pages 47-51). See http://www.cambridgeshire.gov.uk/info/20043/finance_and_budget/90/business_plan_2014_to_2015

Local Transport Board transport funding

Prior to the establishment of the Local Growth Fund (see below), government allocated £14.1M of major scheme funding to the Local Transport Board covering Cambridgeshire, Peterborough and Rutland for the four years from 2015/16. The Cambridgeshire schemes that are allocated funding from this source are:

- Ely Southern Bypass
  An allocation of £6m towards a total scheme cost of £35M.
- Whittlesey Access Phase 1: A605 Kings Dyke level crossing
  An allocation of £3m towards a total scheme cost of £13.2M.
- Soham Station
  An allocation of £1m towards a total scheme cost of £6.2M.

There will be no further funding from this source as the process has now been superseded by Local Growth Fund / Growth Deal.

Local Growth Fund / Growth Deal

Some funding that would previously been allocated directly to Local Transport Authorities for Integrated Transport improvements or for Major Schemes is now included in the government's Local Growth Fund. This funding is available for Local Enterprise Partnerships to bid for, but is not ring fenced for transport purposes.

The Greater Cambridge Greater Peterborough Enterprise Partnership (GCGPEP), supported by the Local Transport Authorities submitted a Strategic Economic Plan with substantial transport elements for consideration for funding from 2015/16 onwards. Government announced initial Local Growth Fund allocations in July of 2014. Funding was allocated to two transport schemes in Cambridgeshire:

- Whittlesey Access Phase 1: A605 Kings Dyke level crossing
  An allocation of £5M split equally over 2015/16 and 2016/17.
- Wisbech Access Strategy
  An allocation of £1M for development of the package of measures Wisbech, with up to £10.5M further between 2017/18 and 2020/21 for scheme delivery.

In January 2015, the second phase of Growth deal negotiations included the agreement of funding for the Ely Southern Bypass:

- Ely Southern Bypass
  An allocation of £16M from 2016/17 towards a total scheme cost of £35M.

A further scheme was discussed in the Deal document and may be brought forward subject to the achievement of certain milestones:

- A428 to M11 segregated bus links
  Provisional allocation of up to £9M subject to provision of a full business case. This scheme forms part of the larger A428 corridor public transport proposals that will be funded by City Deal and developer funding.

Work will continue with the GCGPEP and our local authority partners in the GCGP area to develop the Strategic Economic Plan and the transport programmes and schemes that feed into it, including those detailed in the LTP: Long Term Transport Strategy.

Local Sustainable Transport Fund (LSTF)

As noted above, Cambridgeshire was awarded £5M from the LSTF in the three years from 2012/13. A further £1M of revenue funding was allocated by the Department for Transport in July 2014 for 2015/16, to support capital funding of schemes that would be delivered by Growth Deal and City Deal funding. This funding will focus on the St Neots and Royston to Cambridge corridors, and on Wisbech. The future of the LSTF beyond 2015/16 is currently uncertain.

Developer Funding: Community Infrastructure Levy

The Community Infrastructure Levy (CIL) is a new levy that local planning authorities can choose to charge in their areas. Funds gained are used to support development by providing infrastructure that local areas need, including transport infrastructure.

Charging schedules produced by the District Councils include lists of infrastructure that can be funded through CIL. Schemes on these schedules are generally not eligible for any developer funding from Section 106 (see below). This leaves a risk of there being a significant funding gap for schemes on a charging schedule, as the charging rate reflects the financial viability of development rather than the ability to fully fund the schemes on the schedule. For this reason, if there are schemes that are required specifically to mitigate the impacts of an individual development, and without which a development would be unacceptable, it will often be more appropriate for them to be secured through a Section 106 agreement.

Developer funding: Section106.

Obligations under Section 106 of the Town and Country Planning Act 1990 are a mechanism that enables measures to mitigate a developments impact, without which a development would be unacceptable. In the transport field, they are typically:

The Riverside Bridge in Cambridge was delivered using a package of funding from development (S.106), the Government's Growth Areas Fund and the Integrated Transport Block

- Direct provision of off-site infrastructure specifically related to a development.
- Financial contributions to the provision of off-site infrastructure specifically related to a development.
- Direct provision of or contributions towards the provision of transport services that will serve a site.
- Requirement to develop a travel plan, which may include specific targets for transport use of a site.

With the advent of CIL in most authorities, S.106 obligations will generally be used less frequently for contributions towards more strategic off-site infrastructure provision. However, where CIL has not been adopted, or for larger proposed development sites where CIL is not proposed to be charged, S106 obligations will be required for site specific infrastructure needed to mitigate the impacts of growth to make the development acceptable. These include Bourn Airfield, Cambourne West and Waterbeach New Town in South Cambridgeshire, and Wyton Airfield and Alconbury Weald in Huntingdonshire.

District Council and Parish Council funding / contributions towards schemes.

District, City, Town and Parish Councils frequently contribute funding towards the delivery of transport infrastructure and services that help them deliver local priorities in their areas.

Grant funding and other funding opportunities

We will continue to apply and bid for grants and other funding opportunities as they arise.

Development of the Local Transport Plan

Policies and Strategy

This Policies and Strategy document will be reviewed annually, to ensure that it remains current, in line with the extant guidance from the Department for Transport. Any minor proposed changes to the document will be considered by the County Council's Economy and Environment Committee. More substantial changes (such as this review) will be considered at a meeting of the County Council.

Long Term Transport Strategy

The Long Term Transport Strategy will be reviewed as and when needed. Changes to the Long Term Transport Strategy will follow the same guidelines as noted above for the Policies and Strategy document.

Transport Delivery Plan

The current financial climate, the recent lack of clarity over levels of core funding for transport, and the changing national policy context led to the decision to only include a detailed programme for 2011/12 in the first edition of the LTP3 Implementation Plan.

We now have more certainty in some areas, although some of the same uncertainties remain. However, from 2015/16, the first edition of the Implementation Plan will be superseded by our LTP Transport Delivery Plan. The Transport Delivery Plan will be updated annually, and will maintain a three year programme, together with a forward look into the medium term with a particular focus on major schemes. The Transport Delivery Plan will be considered as part of the overall budget setting process undertaken each year by the Council.

7. Conclusion

This first review of our Third Local Transport Plan: Policies and Strategy document ensures that the plan remains current, and takes account of changes to the policy and funding environment in the three years since the Plan was adopted in March 2011. It reflects our new Long Term Transport Strategy and the Transport Strategy for South Cambridgeshire, which was adopted in March 2014.

Our overarching transport strategy remains the same, and 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 we will aim to meet our key objectives of enhancing the economy and tackling climate change.

Our next Transport Delivery Plan, which will contain a three year forward programme from 2015/16, will for the first time formally incorporate the current LTP Implementation Plan, and provide a medium term view of major scheme delivery.