Report
May 2019

# The Cambridgeshire and Peterborough Local Transport Plan: Our Policies

Cambridgeshire and Peterborough Combined Authority
Our ref: 23217301

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# Our policies

This annex of the Cambridgeshire and Peterborough Local Transport Plan contains our policies for transport.

The policies set out the requirements related to transport planning and design, delivery, and operation and maintenance for the Combined Authority, and our public sector partners, and key private sector and non-for-profit stakeholders.

They are designed to support the delivery of the transport schemes identified in the core Local Transport Plan document, and collectively, to ensure that we achieve our vision for transport for delivering a world-class transport network for Cambridgeshire and Peterborough that supports sustainable growth and opportunity for all.

They are also designed to provide the principles which underpin decision-making, capital investment and revenue support in our transport network.

Each policy is associated either with a given objective, as set out in Chapter 1 of the core Local Transport Plan document, or a given mode of transport. Policies are grouped into individual 'policy themes'.

A summary of the policies is contained within Section 4 of the core Local Transport Plan document.

Figure 1 overleaf provides a summary of the relationship between objectives and policy themes containing our policies, as well as identifying policy themes for specific forms of transport, or "modes", and transport infrastructure (e.g. parking).

**Figure 1: Policy Themes by Objective and Transport Mode Policy Themes**

| Economy | | | | Society | | | | Environment | |
|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |  |  |  |
| **Housing** | **Employment** | **Business and tourism** | **Resilience** | **Safety** | **Accessibility** | **Health and wellbeing** | **Air quality** | **Environment** | **Climate change** |
| Support new housing and development to accommodate a growing population and workforce, and address housing affordability issues | Connect all new and existing communities sustainably so residents can easily access a good job within 30 minutes, spreading the region's prosperity | Ensure all of our region's businesses and tourist attractions are connected sustainably to our main transport hubs, ports and airports | Build a transport network that is resilient and adaptive to human and environmental disruption, improving journey time reliability | Embed a safe systems approach into all planning and transport operations to achieve Vision Zero – zero fatalities or serious injuries | Promote social inclusion through the provision of a sustainable transport network that is affordable and accessible for all | Provide 'healthy streets' and high-quality public realm that puts people first and promotes active lifestyles | Ensure transport initiatives improve air quality across the region to exceed good practice standards | Deliver a transport network that protects and enhances our natural, historic and built environments | Reduce emissions to as close to zero as possible to minimise the impact of transport and travel on climate change |
| Enabling development | Planning and designing developments sustainably | Accessing ports and airports | Building a resilient and adaptive transport network to climate change | Safety for all – a safe systems approach | Transport accessibility for all | Public rights of way and waterways | Improving air quality | Protecting our natural environment | Reducing the carbon emissions from travel |
| | Expanding labour markets | Supporting the local visitor economy | Maintaining and managing the transport network | Ensuring transport security | Transport pricing and affordability | Promoting and raising awareness of sustainable transport options | | Enhancing our built environments and protecting our historic environments | |
| | | Supporting business clusters | | | Access to education and key services | Supporting and promoting health and wellbeing | | | |
| | | Freight | | | The future of mobility | | | | |

| Modal policies | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Walking | Cycling | Delivering a seamless public transport system | Rural transport services | Improving public transport in our towns and cities | Travelling by coach | Travelling by train | The local road network | Parking | Making long distance journeys by car |

# 1 Support housing and development

## Support new housing and development to accommodate a growing population and workforce, and address housing affordability issues

**Overview**

1.1 The provision of new housing, integrated into an effective transport network, will have a positive impact on the quality of life and health and wellbeing of our communities across Cambridgeshire and Peterborough. Currently house prices across the region are unaffordable for many seeking to move within or to the area, particularly in Cambridge and South Cambridgeshire. A consistent disparity between labour demand, population growth and housing provision has led to a major shortage of homes, which in turn has driven prices up. House prices in Cambridge are now 13 times the average household earnings – one of the highest ratios in the country, and considerably higher than the England and Wales average of 8 times average annual household earnings.[1] The ratio of lower quartile house prices to lower quartile incomes in Cambridge; an indicator of the affordability of 'entry-level' homes, is higher still at 14.[2]

1.2 Significant numbers of new houses are needed to solve this disparity and support economic growth. Providing appropriate transport links and connections between new homes, jobs and amenities will be essential to attract developers and residents, for the success of new communities and the growth of existing ones. In order to do so, the Combined Authority will:

- ensure that there are a wide range of high-quality public transport options between new and existing residential areas and major employment sites and other key services and amenities;
- drive the use of 'sustainable' transport modes, particularly the 'active' modes of walking and cycling through infrastructure provision, education and incentive schemes;
- encourage developers to place sustainable transport and its promotion at the heart of new developments; and
- carefully consider the location of new housing development and integrated land uses of development, looking to minimise the length of journeys between housing, key services, and amenities.

1.3 Applying these approaches will help address housing shortages and cost of living challenges sustainably; contribute to an increase in the quality of life for new and existing residents alike; and support economic growth across Cambridgeshire and Peterborough by housing the workforce required for our business to grow. A step-change in sustainable transport and travel will also support our communities in becoming more 'liveable' places – promoting active lifestyles and wider health, wellbeing, and social inclusion, and help reduce the negative impacts of development and associated travel on the environment and climate change.

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[1] Source: **Housing affordability in England and Wales: 2017** (Office for National Statistics, 2018)

[2] Source: **Our Housing Market**, December 2018 (Cambridgeshire Insight, 2018)

## Policy theme 1.1: Enabling development

**Overview**

1.4 The Combined Authority has an ambition to double the size of the economy of Cambridgeshire and Peterborough over the next 25 years. The level of economic growth will require significant levels of development, both employment and housing, as well as mixed use development and supporting civic infrastructure. Housing forecasts alone, identify a need for at least 100,000 additional new homes (including at least 40% new affordable homes) by 2037, and short-term delivery targets of at least 2,000 new affordable homes by 2022, region wide.[3]

1.5 The Cambridgeshire and Peterborough Independent Economic Review's analysis suggests there is a need to build between 6,500 and 8,000 homes a year to support the growth of the economy, whilst an average of 3,750 new homes per year were built over the past five years. Therefore, to achieve these ambitious targets housing delivery will need to increase significantly.[4] Phase 1 of the Non-Statutory Spatial Framework[5] sets out where existing strategic sites are located and proposals for accelerating delivery of housing and commercial employment sites, whilst Phase 2, developed in parallel with the Local Transport Plan, refines the range given and sets out the principles of where future development could take place.

1.6 New development brings with it an increase in the demand for travel, which puts pressure on our transport network. In order to facilitate higher levels of growth and corresponding development, the Combined Authority supports a broad package of schemes and policies, both to incentivise developers to invest in our region, but also to accommodate development as sustainably as possible – reducing the need to travel and promoting sustainable transport solutions.

1.7 This policy theme, *Enabling Development*, identifies the transport policies of the Combined Authority to incentivise development and open-up new and existing parcels of land through investment in and planning of transport and related infrastructure and services.

1.8 Significant development will be focused on locations which are or can be made sustainable, through reducing the need to travel and offering a genuine choice of transport modes, for example around travel hubs on the planned Cambridgeshire Autonomous Metro network. This can help to reduce congestion and emissions, and improve air quality, social inclusion, and health and wellbeing.

**Policy Summary**

1.9 In short, to ensure that the impacts of development on the transport network are appropriately mitigated we will:

- deliver strategic transport and complementary connectivity infrastructure; and
- encourage early engagement with developers; and
- secure developer contributions for strategic and local infrastructure.

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[3] Source: **Housing Strategy** (Cambridgeshire and Peterborough Combined Authority, 2018)

[4] Source: **Cambridgeshire and Peterborough Independent Economic Review** (Cambridgeshire & Peterborough Independent Economic Commission, CPIEC, 2018)

[5] Source: **Cambridgeshire and Peterborough Strategic Spatial Framework (Non Statutory)** (Cambridgeshire and Peterborough Combined Authority, 2018)

*Policy 1.1.1: Deliver strategic transport and complementary connectivity infrastructure*

1.10 The Combined Authority is promoting a programme of key transport schemes to provide a step-change in transport capacity and connectivity to enable development and a higher and accelerated rate of delivery. This includes nine priority transport schemes:

- Cambridgeshire Autonomous Metro
- A10 improvements between Cambridge and Ely
- A47 dualling between the A16 and Walton Highway
- Huntingdon Third River Crossing
- Soham Station
- Cambridge South Station
- Alconbury Travel Hub
- Wisbech Rail Link, integrated with the Wisbech Access Package and Wisbech Garden Town proposals
- A605 King's Dyke Level Crossing Bypass

1.11 The Combined Authority has also prioritised the following schemes and studies on the national networks that are being led by the Department for Transport and its arm's length bodies:

- East West Rail
- Ely Area Capacity Enhancements (EACE)
- A428 enhancements and the Oxford to Cambridge Expressway

1.12 Details of these schemes are contained within the strategy section of the Local Transport Plan. These schemes are supported by a Delivering Digital Connectivity Strategy for the roll out of the Connecting Cambridgeshire programme across Cambridgeshire and Peterborough. This will reduce the need to travel, as well as improving the reliability and capacity of the transport network.

*Policy 1.1.2: Early engagement with developers*

1.13 The priority transport schemes and digital programme are further supported by a number of more local schemes to support development, as well as meeting the goals and wider objectives of the Local Transport Plan.

1.14 The Combined Authority will work with Local Planning Authority and Local Highway Authority partners to identify and bring forward these transport schemes, working with developers to:

- engage with developers to identify whether they will lead the implementation of transport improvements, or will make a financial contribution to implement new or improved transport infrastructure and services, to mitigate the impacts of their development;
- consider new funding and financing mechanisms that enable the early delivery of development-associated transport infrastructure;
- promote the use of a pre-planning application advice service for developers to help developers identify specific transport measures required to mitigate the impacts of their proposed developments; and
- maintain communication with developers through the planning process to ensure that developers consider the likely timing of infrastructure provision and plan for appropriate phasing of development build out and future growth.

*Policy 1.1.3: Secure developer contributions for strategic and local infrastructure*

1.15 The Combined Authority will encourage Local Planning Authority and Local Highway Authority partners to continue to ensure that developer contributions (i.e. funding contributions) are sought, where appropriate, to:

- ensure that there is no development is exempt from providing appropriate mitigation of its impacts on the transport network;
- improve and deliver infrastructure and services for sustainable modes of transport, and provide for other enabling infrastructure, in advance or early in the life of a development to mitigate negative impacts;
- improve existing, or construct new, transport infrastructure in order to access developments in a safe manner and mitigate impacts on existing transport network users; and
- contribute to the delivery of strategic transport and digital connectivity and energy infrastructure.

# 2 Improve access to jobs

## Connect all new and existing communities sustainable so residents can easily access a good job within 30 minutes, spreading the region's prosperity

**Overview**

2.1 The Cambridgeshire and Peterborough economy is one of the most productive in the country, supporting almost half a million jobs and producing an economic output worth £24 billion in 2016. Large parts of this economy are based on highly productive 'clusters' of businesses around Cambridge and Peterborough, which benefit from the 'agglomeration benefits' brought by being closely situated to each other. However, this dense clustering of economic activity means that the jobs, opportunities and prosperity associated with these 'clusters' is unevenly distributed across the Combined Authority area. Worse, this dense geographical clustering and a limited housing market has driven house prices in urban areas well above the national average, and beyond the reach of large sections of the population. This limits opportunities for those who do not already live in well-connected urban areas, stifles economic growth, and ultimately drives social disparity.

2.2 We must better connect the existing and future housing market to jobs, effectively bringing more of the population 'closer' to more jobs. This will spread the benefits of future economic growth more evenly, and benefit businesses who will have a wider range of potential employees to select from. Developments to the transport network should also 'unlock' sites for future housing development by providing new and improved connectivity to existing urban areas. We must act proactively in this area, as the transport network is already operating close to capacity and sees serious congestion on a regular basis. Future population increases will load even more journeys onto the network, potentially worsening congestion. To prevent this from happening, and ensure that the transport network is a facilitator rather than inhibitor of future economic growth, we will:

- work closely with developers to ensure that transport planning is integrated into every stage of new housing development plans;
- widen the geographical scope of the transport network, providing better connectivity between major urban areas and the rest of the Combined Authority area; and,
- tackle congestion, by providing better 'sustainable' transport options such as public transport and cycling infrastructure and providing infrastructure interventions at key 'pinch points'.

2.3 Failing to deliver these initiatives, and tackle the issues described above, has the potential to limit future growth, damaging the regions national and international business reputation. Delivering them will build and spread future productivity and prosperity across the region. The detail of how we will do this is set out in the policies which follow below.

## Policy theme 2.1 Connecting developments sustainably

**Overview**

2.4 The population of Cambridgeshire and Peterborough is forecast to grow considerably over the next twenty years and a significant level of residential development, as well as development of commercial sites for employment and other civic amenities and facilities, is required to accommodate this growth. This development will take place across the region through a combination of city centre densification, urban extensions, suburban developments and construction in rural locations, sensitive to local context and need.

2.5 This policy theme, *Connecting Development Sustainably*, provides policy on how the impacts of development should be accommodated and mitigated as sustainably as possible; both through the design of new developments and through integration into existing communities through transport infrastructure.

2.6 Local Planning Authorities have responsibility, through policies set out in their Local Plans and Supplementary Planning Documents and Area Action Plans, to set the requirements that developers must adhere to in contributing to accommodating travel demand and the mitigation of impacts of developments on the transport network. The planning context is further enhanced by this Local Transport Plan and the Cambridgeshire Transport Investment Plan and Peterborough Forward Works Plan, all against which developer contributions will be collected. The Combined Authority will work with partners to investigate the practicality of a single Transport Investment Plan.

2.7 The transport needs of developments will vary, but key to the Combined Authority approach outlined in the Non-Statutory Spatial Framework and its Housing Strategy, and the approaches of Local Planning Authorities' Local Plans is that all new development proposals should demonstrate that appropriate, proportionate and viable opportunities have been taken to:

- reduce the need to travel, especially by car and road freight;
- prioritise sustainable modes over car use across the network; and
- connect new development sustainably to travel hubs, local centres, and key services and amenities.

2.8 In line with the National Planning Policy Framework[6] the sustainability of connectivity to new developments will be considered from the earliest stages of plan-making and development proposals, so that:

- the potential impacts of development on transport networks can be addressed;
- opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;
- opportunities to promote walking, cycling and public transport use are identified and pursued; and
- the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for delivering environmental gains.

[6] Source: **National Planning Policy Framework** (Ministry of Housing, Communities & Local Government, 2018)

**Policy Summary**

2.9 In short, the policies to support sustainable connectivity to new developments aim to:

- support the provision of sustainable connectivity to and within developments;
- ensure developers provide sufficient transport capacity and connectivity to support and meet the requirements arising from development; and
- the design of parking.

*Policy 2.1.1: Support the provision of sustainable connectivity to and within developments*

2.10 Development should be planned:

- with the co-development of transport schemes with developers, local communities, and other key stakeholders;
- to reduce the need for travel, particularly longer distances, and reduce the number of vehicles entering and travelling around our cities and market towns;
- to enable this through:
  - the design of developments;
  - provision of digital infrastructure to allow working and the accessing of key services and amenities remotely;
  - delivery and promotion of sustainable transport infrastructure and services within developments, to travel hubs, to existing networks, and to key services and amenities;
- to improve accessibility for those with mobility issues, and design and build high quality public realm accordingly to good practice design guidelines; and
- to maintain the infrastructure and services delivered.

*Policy 2.1.2: Ensure developers provide sufficient transport capacity and connectivity to support and meet the requirements arising from development*

1.1 The Combined Authority will support Local Planning Authority and Local Highway Authority partners to:

- ensure that developers undertake the legally required assessment of proposals for new developments using appropriate methodologies (e.g. Transport Assessments and Transport Statements, Construction and Logistics Plans, Delivery and Servicing Plans, Travel Plans), for the agreed forecast transport impacts and demonstrating alignment to local and Combined Authority policy;
- make the granting of planning permission for developments dependent on the developer:
  - having made appropriate provision for safe, convenient and sustainable access to, from and within the site by all user groups;
  - appropriately mitigating residual cumulative impacts on any element of the transportation network including highway safety;
  - giving due consideration to all the infrastructure implications of a development or scheme (not just those on the site or its immediate vicinity);
  - providing appropriate charging facilities for electric vehicles;
  - ensuring that developers consider the likely timing of infrastructure provision and plan for appropriate phasing of development build out; and
  - if providing funding towards transport and related infrastructure and services, funding is provided not only for capital investment for the construction, but for its maintenance, and revenue funding for subsidising new and additional services and for the delivery of sustainable transport programmes and initiative; and
- ensure that supporting plans include monitored targets for the reduction in the transport impacts of the development and that resources are identified for monitoring and evaluation within the documents, and the use of bonds where appropriate.

*Policy 2.1.3: The design of parking (also see policy theme 19)*

2.11 The Combined Authority will support Local Highway Authority and Local Planning Authority partners to promote:

- the ongoing provision of parking spaces for Blue Badge holders in safe and accessible locations in close proximity to key services and amenities, in line with minimum standards;
- parking design that is safe, secure and considers the parking needs of all road users, including cyclists, motorcyclists, car drivers, coach operators, and Heavy and Light Commercial Vehicles operators and drivers;
- a better quality of life in our communities, that encourage more sustainable travel behaviours, and that do not have adverse safety or operational impacts on other road users;
- maximums and minimum standards and supporting guidelines, in line with the National Planning Policy Framework, for different modes and complementary facilities, that ensure that all developers assess and make appropriate provision for the travel needs of development proposals considering:
  - the type, mix and use of development;
  - the accessibility and availability of existing public transport and safe walking and cycling infrastructure;
  - the opportunities for developers to provide improved safe walking and cycling infrastructure, and public transport infrastructure and subsidy;
  - the existing available parking provision close to the development site;
  - predicted local car ownership levels;
- the use of electric and other ultra-low emission vehicles, through advocating lower tariffs in the short term, and through a requirement on developers to provide a minim standard of spaces with suitable charging infrastructure.

## Policy theme 2.2: Expanding labour markets

**Overview**

2.12 Cambridgeshire and Peterborough's economy is one of the most productive in the country, with growth in economic output significantly outperforming both the regional, and national, economy over the past decade[7]. Much of this success is dependent upon access to our skilled labour market, with good transport infrastructure effectively connecting workers to jobs. Research commissioned for CPIER, identified that 45% of businesses surveyed stated that the quality and availability of the local labour force was either very important or critically important to them[8]. CPIER also, importantly, identified that the economy of Cambridgeshire and Peterborough is better represented as three economies – Peterborough and surrounding area, Cambridge and surrounding area, and the rural economy – each typified by their hinterlands, including their own labour market catchments.

2.13 Much of this growth is supported by the area's dynamic and skilled workforce, and dense clusters of diverse and innovative businesses. However, the knowledge-intensive clusters identified within the CPIER report would not succeed without access to workers across the full spectrum of occupations and capabilities[9]. CPIER itself states that "employers in the area are more dependent on *recruitment* to meet skills gaps than elsewhere in the country". For example, the Cambridge Biomedical Campus relies not just upon management and specialist staff but a large number of porters, cleaners, security and administrative workers to keep operations running smoothly every day of the week. Ensuring that staff at all levels have safe, convenient and affordable access to employment opportunities is, therefore, essential to attract new firms and secure investment.

2.14 Inevitably, the success of both Cambridge and Peterborough has brought its own problems. Delivery of housing and transport infrastructure has not kept pace with the growth in jobs located in and around our cities. This has led to increases in congestion with commuting trips, particularly those by car, becoming longer and less reliable[10]. High house prices and rents have forced many households away from city centres, with consequent impacts on the average distance and time spent travelling to work. This can present a particular challenge for *dual-incomes* households, where two people live in the same household but work in different locations, since many market towns and new housing sites have limited wider accessibility to multiple employment areas.

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[7] Source: Cambridgeshire and Peterborough Local Transport Plan: Evidence Base (Steer, 2018)

[8] Source: **Cambridgeshire and Peterborough Independent Economic Review** (Cambridgeshire & Peterborough Independent Economic Commission, CPIEC, 2018)

[9] For the purposes of this document, 'knowledge intensive' jobs are considered to be those which rely heavily on professional knowledge, and include a broad range of intangible assets, like research, data, software and design skills, which capture or express human ingenuity. The creation and application of knowledge is especially critical to the ability of firms and organisations to develop in a competitive global economy and to create high-wage employment (Source: **OECD**, 2013).

[10] At a national level, the number of people commuting for more than an hour to get into work has increased by 31 per cent since 2011 (**Labour Force Survey**, Office for National Statistics, 2019).

2.15 Both Peterborough and Cambridge, therefore, have extensive commuting catchments stretching outside their city boundaries, and are hence reliant on good local and regional connectivity. Peterborough's labour market stretches into neighbouring Fenland and Huntingdon, as well as south Lincolnshire and east Northamptonshire. More than one-third of jobs within the city are occupied by those who live outside the Local Planning Authority boundaries. Cambridge also has an expansive labour market, with only 40% of jobs within the city occupied by those who also live within the city boundaries. 28% commute from South Cambridgeshire, 16% from elsewhere within the Combined Authority, and 18% from elsewhere in the country.

2.16 While the labour markets (and hence commuting patterns) of the market towns are considerably more self-contained, some key links on the highway network suffer from regular congestion, especially in peak times, and poor journey time reliability. Local highway networks, in particular in and around Huntingdon, Wisbech, St Ives, Ely and St Neots, often experience traffic congestion.

2.17 While investment in transport infrastructure and services can do a great deal to improve the journey to work, providing additional capacity to accommodate demand for only a short period of each day can prove prohibitively expensive and wasteful. There is also a clear need for spatial planning approaches that reduce the need to travel long distances: co-locating homes and jobs can expand effective labour markets. Digital technology also plays a role in reducing the need to travel, for example through enabling remote working, or it can facilitate access to employment, for example smart motorways.

2.18 Our approach to expanding our labour markets combines targeted investment in key network 'pinch points', many of which experience all-day congestion, together with policy measures which seek to reduce the burden upon our transport networks during peak periods, reduce the need to travel and improve accessibility by public transport.

**The role of transport**

2.19 Investment in transport can help deliver improvements, both directly and indirectly, to help to meet the Combined Authority's ambition for every resident to have a good quality job within easy reach of home. For example, better transport infrastructure and services can:

- reduce congestion and shorten journey times, leading to:
  - a greater number of jobs being available within a given distance (or time) from home;
  - a wider pool of labour being available to businesses leading to better matching between individuals and jobs;
- encourage more sustainable travel patterns to access employment and services, including mode shift to public transport, walking and cycling;
- provide access to jobs for individuals located in remote locations and/or for whom use of the private car is unattractive or infeasible;
- encourage individuals that are currently out-of-work to take up employment opportunities by reducing barriers and reducing the 'cost' of going to work;
- unlock commercial and development sites which are attractive to organisations (premises with good access to appropriately skilled labour), individuals (homes which good access to jobs) or, ideally, both; and
- remove actual and perceived constraints to future growth (such as congestion) to demonstrate that the area is 'open for business' and an attractive location for long term relocation and investment decisions.

**Policy Summary**

2.20 Our policies are therefore intended to help expand access to our labour markets, both to improve accessibility to *existing* jobs, and ensure that future development is well-integrated into our transport networks and maximises the effective size of our labour markets.

2.21 We will therefore work, in collaboration with our Local Highway Authority partners, to:

- support sustainable commuting to reduce peak demand on the highway network;
- improve the accessibility and connectivity of our public transport links to expand our labour market catchments; and
- invest in our highway network to improve accessibility.

*Policy 2.2.1: Support measures to reduce peak demand on the highway network*

2.22 Typically, traffic congestion in our towns and cities is worst during the morning and evening peaks, when the demand for travel is greatest. Journeys to work, together with the school run, place significant pressure on the highway network, contributing to traffic congestion, lengthening journey times, and in turn reducing the labour market accessibility of key employment sites, upon which our economy relies.

2.23 Many highway trips, however, are short in distance, and could be made by alternative modes. Half of all car journeys in England, for example, are less than three miles – a distance that would take less than 15 minutes to cycle. As outlined in policy theme 7.2 (Promoting and raising awareness of sustainable transport options), we will work with Local Highway and Planning Authority partners to:

- reduce the need to travel and support the use of additional demand management (including parking) measures to reduce the number of vehicles, particularly single (or zero) occupancy vehicles on our roads, where sustainable alternatives exist;
- promote the use of more sustainable modes of transport through new walking and cycling infrastructure; improving the quality of existing infrastructure and the improved integration of services; and through independent travel and cycle training, education, and promotions;
- explore initiatives that reduce the need to travel including flexible working, personalised journey planning, car sharing and other smarter choices; and
- use Intelligent Mobility solutions to actively manage traffic and make more efficient use of existing assets and services, through connected signals and travel information (as outlined in policy theme 6.4 (The future of mobility).

2.24 Together with demand management, and encouraging walking, cycling and public transport, the tendency for commuting journeys to be made to a similar location at a similar time (compared to, for example, shopping trips), lends itself to a more sustainable use of the car through car-sharing in particular. Car sharing, either formally or informally, reduces fuel costs, congestion, air pollution, stress and parking demand, and is most effective where targeted at the daily commute, where single occupancy car use and congestion are most prevalent. It is also well-suited to longer car journeys to 'out-of-town' employment locations where traditional public transport options may be more limited.

2.25 The Combined Authority will therefore:

- support efforts to promote and encourage car-sharing, including working with Cambridgeshire County Council to support *CamShare*, a car sharing community for those travelling to work in Cambridgeshire; and

- explore how similar initiatives can be developed for major employment areas in Peterborough.

2.26 Expansion of Park & Ride facilities surrounding Cambridge – where well integrated with surrounding public transport and walking and cycling links as part of a multi-modal transport 'hub' – can also play an important role on reducing highway demand in town and city centres where congestion pressures are most acute. We will therefore support the expansion of Park & Ride provision – where fully integrated into local transport networks – as outlined in policy theme 13 (Delivering a seamless public transport system) including the proposals currently being pursued by the Greater Cambridge Partnership.

*Policy 2.2.2: Improve the accessibility and connectivity of our public transport links to expand our labour market catchments*

2.27 Public transport plays a key role in allowing workers to access jobs elsewhere. Although our bus, coach and rail networks provide an expansive network connecting our population and employment centres, accessibility along some key corridors is limited, reducing the size of the labour pool specific organisations are able to recruit from, particularly for workers without access to a car.

2.28 Typically, this is especially problematic for employers based on the fringes of our towns and cities. Kingston Park, for example, a large distribution centre on the southern edge of Peterborough, home to one of Amazon's regional distribution centres, lacks even an infrequent bus service to neighbouring residential areas; the Cambridge Science Park, whilst well-served by Cambridge Guided Bus services to St Ives and Cambridge City Centre, lacks good accessibility to residential areas in the east and west of the city.

2.29 As outlined in policy theme 15 (Improving public transport in our towns and cities) and policy theme 17 (Travelling by train), the Combined Authority will work in collaboration with the Department for Transport, Local Highway and Planning Authorities, transport operators, and workplaces to improve the accessibility of our employment sites. This includes:

- working with bus and coach operators to maximise the opportunity to enhance service frequencies;
- working with the Department for Transport, Network Rail, train operators and the rail industry to improve journey times and frequencies on our key rail routes, in particular along the Peterborough to Cambridge corridor and from Peterborough and Cambridge to London;
- supporting the delivery of new and improved public transport interchanges, to improve the ease of travel and create new, viable commuting opportunities;
- supporting investment in bus priority measures – and, in time, other demand management measures to reduce the effects of traffic congestion – to help reduce journey times and improve reliability; and
- work with businesses and other employers to promote use of public transport and sustainable alternatives, including flexible working, and to provide shared private vehicles where appropriate.

2.30 Several major projects and priorities are also being pursued by the Combined Authority, the GCP and the Department for Transport, which will help to significantly increase labour market catchments, presenting new job opportunities for our workers and larger labour pools for our firms and organisations. These include:

- dedicated, wholly segregated public transport corridors linking Cambourne, Waterbeach and Granta Park to Cambridge, which are currently being developed by the Greater Cambridge Partnership and will form a first phase of the Cambridgeshire Autonomous Metro (CAM) network;
- the full CAM, which will link key destinations in Cambridge, (such as the Cambridge Biomedical Campus, City Centre and Northern Fringe), to each other and key corridors in the Greater Cambridge area and beyond, including to St Ives, Haverhill and Mildenhall;
- reopening of the rail line from March to Wisbech, significantly widening employment prospects for residents with the introduction of direct services from Wisbech to Cambridge and Ely, supported by the Ely Area Capacity Enhancement (EACE) upgrades at Ely North rail junction;
- East West Rail, a project currently being developed by the Department for Transport, which will link Cambridge to the East Coast Main Line, Milton Keynes and Oxford, and significantly expand the ability to commute to Cambridge along the Oxford to Cambridge corridor; and
- advocating improvements to rail journey times on the East Coast Mainline to support effective north-south expansion of labour market catchments for Peterborough, Huntingdon and other communities with stations along the corridor.

*Policy 2.2.3: Invest in our highway network to improve accessibility*

2.31 Driving is the dominant commuting mode within Cambridgeshire and Peterborough, and hence a key method of travelling to work for our residents. While our plans, as detailed in the policies above, will encourage the use of public transport, rail and active travel modes, it is recognised that the car plays an important role in facilitating commuting trips that are difficult by public transport, and /or too lengthy to walk or cycle.

2.32 Our proposals, as outlined in policy theme 20 (Making long-distance journeys by car), will therefore seek to reduce journey times and improve reliability in order to expand labour market accessibility, and ensure that future congestion does not worsen access to our key employment sites. These include:

- working with the Greater Cambridge Partnership to dual the A10 between the Milton Interchange and Waterbeach New Town, in conjunction with a new segregated public transport link along this corridor, significantly improving access to Waterbeach New Town and new development at the Cambridge Northern Fringe East (CNFE);
- working with Highways England to:
  - upgrade the A47 between Kings Lynn, Wisbech and Peterborough, improving labour market accessibility to and from the Fens and at Wisbech Garden Town;
  - dual the A428 between Cambourne / Caxton Gibbet and St Neots / Black Cat, and in the longer-term deliver the Oxford to Cambridge Expressway, significantly improving commuter linkages along the Oxford to Cambridge corridor;
- working with Cambridgeshire County Council to deliver new road infrastructure in and surrounding Huntingdon and Alconbury, including the Third River Crossing, in order to improve the accessibility of key future employment sites at Alconbury Weald; and
- working with Peterborough City Council to deliver a package of local highway improvements, including to major junctions on the Fletton and Nene Parkways, the A605 at Alwalton and Stanground and capacity improvements at Fengate, to improve

accessibility to key employment sites and support the development of a future university in Peterborough.

# 3 Enhance business connections

## Ensure all of our region's businesses and tourist attractions are connected sustainably to our main transport hubs, ports and airports

**Overview**

3.1 Cambridgeshire and Peterborough's businesses rely on connectivity, not only within the Combined Authority area, but to rest of the UK and the world. The area sees major flows of foreign goods, workers and tourists every year, and lies on several key transport routes with links to regional ports, local airports, and the rest of the country. Guaranteeing that the transport network works effectively for these varied needs is challenging, but critical to the area's success. This includes efficient and reliable travel times, and the provision of timely information for travel planning and navigation.

3.2 The emerging Local Industrial Strategy for Cambridgeshire and Peterborough identifies the need to facilitate trade, particularly internationally, to increase economic growth and the contribution to local communities and the national economy. The region's manufacturing, agriculture, and health and life sciences sectors rely on international trade for the import and export of goods, and the region's professional services and tourism sectors, and health and life sciences sector, again, rely on the international movement of people, be they visitors or business travellers.

3.3 In addition to international connections, inter-regional travel to London and other regions of the UK is important to bring major investment and economic prosperity to the area. Currently the transport network serves their needs adequately, but not exceptionally. In order to provide a truly world-class transport system, the Combined Authority will:

- provide better access to rural tourism destinations, attracting more tourists and retaining them in the area for more extended periods of time;
- improve the perception of Stansted airport as an airport with a truly global reach;
- improve rail freight connections across the Combined Authority area, through improvements in infrastructure and scheduling;
- provide better infrastructure and guidance for freight drivers moving through the area, ensuring that the impact freight has on local areas is minimized; and
- ensure that the transport network is flexible, and able to adapt to potential changes in international markets.

3.4 Achieving these objectives will ensure that the Combined Authority remains globally renowned as an attractive area for international tourism, labour, foreign direct investment, and trade. Doing so is a matter of local, regional and national importance. Wide-ranging connections are fundamental to the economic success of the Combined Authority and guaranteeing their efficacy now will be a key determinant of future economic success in the region.

## Policy theme 3.1: Accessing ports and airports

**Overview**

3.5 The Cambridgeshire and Peterborough area benefits from direct access to a number of major ports and airports. These provide strategic links abroad and to elsewhere in the UK, allowing residents and businesses to easily travel and trade elsewhere, and key to ensuring that visitors can visit our region.

*Airports*

3.6 Stansted Airport, together with Heathrow, Luton, London City, East Midlands and Norwich, provide extensive international and domestic connections and rely on good transport links to allow passengers, airport workers, and freight access. Stansted, in particular, acts as a main gateway for the region, offering access to more than 140 direct destinations[11]. Development at Stansted, including a new arrivals terminal (due to open in 2020) and re-developed departures terminal[12] will allow the airport to service an estimated 8 million passengers annually, and support 5,000 extra jobs[13]. This expansion will lead to a growth in trips to and from the airport, which will need to be planned for and managed appropriately.

*Ports*

3.7 Deep-sea ports, in particular the Port of Felixstowe, cater for large ocean-going vessels which transfer large volumes of goods to and from overseas. While these allow organisations in Cambridgeshire and Peterborough to export abroad, they also generate significant road and rail freight movements, which contribute to traffic and congestion on our road and rail networks, particularly on the A14. The Port of Harwich also offers international passenger connectivity, with two ferry services per day to Hook of Holland in the Netherlands, and onward connectivity to the European rail and motorway network. It plays a key role in facilitating tourist flows in both directions. Proposed major port development at Felixstowe (by 2030[14]) and Harwich (timescale uncertain[15]) will lead to additional demand for further freight traffic on such routes, even allowing for the interventions being delivered to accommodate more freight by rail.

**Policy Summary**

3.8 Ensuring expeditious access to our ports and airports from across the Combined Authority area, together with mitigating the impacts of freight traffic to these gateways and encouraging sustainable rail freight, is a key priority. Policy therefore supports:

- improvements to our transport infrastructure to enable efficient access for freight travelling to Felixstowe and Harwich, particularly by rail;
- improved surface access (road and rail) connectivity to Stansted Airport for people and freight;
- the region's visitor economy through efficient passenger connectivity at Harwich;

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[11] Source: **Destinations & Guides, Stansted Airport** (London Stansted Airport, accessed January 2019)

[12] Source: **Transforming London Stansted** (Manchester Airports Group, 2018)

[13] Source: **MAG London Stansted Airport** (Manchester Airports Group, 2018)

[14] Source: **Port of Felixstowe**, (Hutchinson Ports, Port of Felixstowe, accessed February 2019)

[15] Source: **Major Infrastructure and Projects**, (Essex County Council, accessed February 2019)

- working in partnership with port and airport operators to encourage sustainable commuting patterns to their sites for workers commuting from within the Combined Authority; and
- influencing national and local decisions on port and airport planning that impact on routes through the Combined Authority area.

*Policy 3.1.1: Support improvements to our transport infrastructure to enable efficient access for freight travelling to Felixstowe and Harwich, particularly by rail*

3.9 The Combined Authority area is located on a number of strategic freight corridors which provide access to the Haven Ports of Felixstowe, Harwich and Ipswich. These include:

- the A14 which links Felixstowe and Harwich to the West Midlands and the A1 (for the North of England), via Cambridge and Huntingdonshire; and
- the Felixstowe to Nuneaton rail corridor, via Ipswich, Ely and Peterborough, which forms the key artery for rail freight to and from the Haven Ports to the rest of the country.

3.10 Continued development at the Ports of Felixstowe and Harwich will lead to increasing freight traffic on the region's roads and railways, despite significant investment designed to accommodate more freight by rail. By way of indication, between 1990 and 2008, traffic on Cambridgeshire'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.[16]

3.11 The Combined Authority will, therefore, continue to support measures to improve access to Felixstowe and Harwich, both to improve accessibility to the Ports for businesses, and alleviate congestion arising from freight traffic on our key route network. This will include working with the Department for Transport, Highways England, Network Rail, freight operators, and our Local Highway Authority partners in:

- co-ordinating the development of freight corridors in line with the allocation of specific funds for Sub-National Transport Bodies;
- supporting improvements to the Felixstowe to Nuneaton rail corridor to enable more freight to be carried by rail, thereby alleviating congestion on our highway network, particularly the A14. This includes supporting junction improvements at Ely, as well as doubling of the Felixstowe – Ipswich and Ely – Kennett Lines and removal of the single-lead junction at Haughley in Suffolk, each of which act to constrain capacity for freight trains along the route;
- supporting investment in key highway links to our Ports for freight which cannot feasibly be carried by rail, including continued upgrades of the A14, A120 and key junctions where required to support freight movements; and
- considering how best to support innovative opportunities for decarbonisation of road freight such as alternative fuel and/or autonomous lorries.

[16] Source: **Cambridgeshire Local Transport Plan 2011-2031** (Cambridgeshire County Council, 2015)

*Policy 3.1.2: Support improved road and rail connectivity to nearby airports, in particular at Stansted*

3.12 Stansted Airport forms the key international gateway to the Combined Authority, and is served directly by the M11 motorway and hourly rail services to Cambridge and Peterborough. Heathrow Airport, located approximately a 2½ hour drive from Cambridgeshire and Peterborough, offers a broader range of global destinations, while Luton, London City, East Midlands and Norwich airports also provide air connectivity for areas within the Combined Authority. Regular coach services operate to and from many of these airports. There is now also a direct train service between Cambridge and Gatwick Airport as part of Thameslink

3.13 Ensuring that residents, businesses and visitors to our region can easily reach these airports is an important priority for the Combined Authority. We will therefore:

- support continued improvements in rail accessibility to Stansted. Current services between Norwich and Cambridge will be extended to Stansted from late 2019, doubling the frequency between Stansted and Cambridge / Ely to half-hourly. We will continue to support further improvements, including making the Stansted – Cambridge – Peterborough *CrossCountry* service half-hourly, infrastructure enhancements required to support this, capacity improvements and timetable improvements to allow later evening and Sunday services;
- support continued frequency and journey enhancements to coach routes which link the Combined Authority to these airports, and that high-quality facilities are provided at airports for these services; and
- support highway improvements where they significantly improve access to Stansted and other airports, including 'smart motorway' proposals for the A1(M) and M11.

*Policy 3.1.3: Support the region's visitor economy through efficient passenger connectivity at Harwich*

3.14 Stena Line ferries link Harwich to Hook of Holland twice daily, and provide a key gateway to the region for European tourists, predominately travelling by private car. Approximately 700,000 passenger trips are made per year via the route, and it forms the fifth busiest international short sea crossing link to the UK.

3.15 Harwich is well-connected to the Combined Authority, and the rest of the country, by the M11 / A120 and A12 / A14 routes. We will support further improvements to these routes, including the proposals to upgrade the A120 between Colchester and Braintree, currently being pursued by Highways England.

3.16 In addition, the Port of Harwich benefits from direct access to the rail network, with Harwich International station directly adjacent to the port, providing seamless connectivity between ferry and rail services. One direct rail service a day (each way) connects Cambridge to Harwich to align with the overnight sailing to and from Holland, and convenient Rail & Sail through-ticketing is available. We support these direct services and ticketing arrangements, and will ensure that they are retained through any future rail franchise changes.

*Policy 3.1.4: Work in partnership with port and airport operators to encourage sustainable commuting patterns to their sites for workers commuting from within the Combined Authority*

3.17 There are significant commuting flows to Stansted Airport from South Cambridgeshire, together with small flows to and from the rest of the Combined Authority to ports and airports elsewhere, which collectively place congestion pressures on the highway network.

3.18 The Combined Authority will therefore work with Travel for Cambridgeshire Partnership and Peterborough Travel Choices to:

- engage with the Stansted Area Transport Forum[17], a public/private partnership of individuals who are interested in how journeys are made to and from London Stansted Airport by passengers, workers and other visitors;
- engage with key employers at Stansted Airport and the Haven Ports to encourage participation in Travel for Cambridgeshire and Travel Choices workplace activities;
- facilitate interventions to support cross boundary travel by rail and bus for employees;
- promote car sharing schemes across the Combined Authority area for these key employment sites;
- support the introduction of electric vehicle charging points on the road network to facilitate use of electric vehicles, including taxis;
- enhance information provision at public transport interchanges in the Combined Authority area relating to accessing airports by public transport; and
- work with Stansted Airport to consider the potential for car club access to the Combined Authority's geographical area.

[17] Source: **Stansted Area Transport Forum** (Stansted Area Transport Forum, accessed 2019)

## Policy theme 3.2: Supporting the local visitor economy

**Overview**

3.19 The Cambridgeshire and Peterborough Combined Authority has a wealth of sites, destinations and experiences which attract tourists from all over the world to visit the region. The University of Cambridge, Peterborough and Ely Cathedrals, and the Cambridgeshire Fens are just a selection of the attractions of the Combined Authority area.

3.20 Visit Britain's tourism strategy for growth[18] suggests that few British industries are as strong as travel and tourism, and few have such growth potential. To deliver this growth an exceptional level of collaboration and partnership between the travel industry, the public sector and Government is required. The strategy identifies the need to improve the accessibility of the transport network and the connectivity that it provides to more remotely located tourist destinations.

3.21 Peterborough City Council's Visitor Economy Strategy[19] has a vision that *Peterborough will be an excellent, accessible, unified and varied visitor and business destination throughout the year.* Visit Cambridge and Beyond[20], which is the destination management organisation for Cambridgeshire, is guided by six key objectives including:

- develop a long-term sustainable model for tourism in Cambridge and the surrounding area and reduce the cost of tourism to the Council;
- safeguard the visitor economy as a key economic driver for the city and the surrounding area; and
- maximise the economic benefits of the visitor economy across the city through actively promoting value not volume tourism and therefore supporting the ongoing economic wellbeing of the city. To ensure that this vision and objectives can be realised, an integrated transport plan with improved strategic connectivity at its core is required.

3.22 The major cities of the Combined Authority area, Peterborough and Cambridge, are relatively well connected by public transport to international gateways (e.g. London Stansted and Port of Harwich) and larger major centres (e.g. London), but rural parts of region suffer from a lack of public transport connectivity, which presents a challenge to attracting tourists to the area. A high-quality, integrated and easy-to-use rural public transport network is essential for ensuring that visitors to the region can experience the great opportunities provided by our rural areas. Policy theme 14 (Rural transport services) provides further information on the rural transport network, following recommendations from the Cambridgeshire and Peterborough Strategic Bus Review.

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[18] Source: **Delivering a Golden Legacy: A growth strategy for inbound tourism to Britain from 2012 to 2020** (Visit Britain, 2012)

[19] Source: **Visitor Economy Strategy 2015-2020** (Peterborough City Council, 2015)

[20] Source: **Visit Cambridge and Beyond** (Visit Cambridge, 2016)

**Policy Summary**

3.23 In short, the policies to support local visitor economy aim to:

- improve connectivity to international gateways and large centres;
- deliver an integrated transport network navigable by passenger who are visiting the region for the first time;
- deliver sustainable transport connectivity to tourist destinations in rural areas, such as the Cambridgeshire Fens; and
- provide sufficient space and appropriate infrastructure for coach services to manage the impacts of day visitors on our highway and parking infrastructure.

*Policy 3.2.1: Improving connectivity to international gateways and larger centres*

3.24 The Combined Authority will work with its Local Highway and Planning Authority partners and Sub-National Transport Body partners, to advocate that the Department for Transport, Highways England, Network Rail and train operating companies to improve strategic road and rail connectivity connecting the Combined Authority area to the key entry points for international tourists to the region – Stansted Airport, Port of Harwich, and London.

*Policy 3.2.2: Delivering an integrated transport network navigable by passenger who are visiting the region for the first time*

3.25 The Combined Authority will work with its Local Highway Authority partners to advocate that Highways England, Network Rail, and train operating companies:

- ensure that guidance and information is provided to enable visitors to the region to easily buy a ticket for their journey;
- provide accurate real-time information of services both online and at the station, particularly during times of disruption;
- ensure that clear signage and wayfinding is provided to facilitate easy navigation from the Strategic Road Network by car and from railway station and other public transport interchanges by passengers;
- enhance information provision, signage and wayfinding at public transport interchanges in the Combined Authority area relating to accessing airports and other destinations important to the visitor economy by public transport; and.
- promote bike hire schemes, integrated with rail, as both a sustainable mode of transport and activity for visitors to the area.

*Policy 3.2.3: Delivering sustainable transport connectivity to tourist destinations in rural areas*

3.26 The Combined Authority will:

- support the development of rural travel hubs creating recognisable gateways to the rural bus network, and in the longer-term integrating this into the Cambridgeshire Autonomous Metro (CAM) network, if appropriate;
- support the provision of coach infrastructure in rural areas to encourage sustainable transport related to tourism; and
- continue to work with Network Rail to deliver enhancements to rural stations, including building refurbishments and improved waiting facilities at Soham, March and Manea to encourage use of rail travel.

*Policy 3.2.4: Providing sufficient space and appropriate infrastructure for coach services to manage the impacts of day visitors on our highway and parking infrastructure*

3.27 The Combined Authority will:

- continue to work with Local Highway and Planning Authorities and the coach industry to enable the provision of adequate on-street and off-street coach infrastructure in appropriate locations for passengers to access key tourist sites; and
- engage with Destination Management Companies in the region including Visit Cambridge and Beyond and Visit Peterborough to understand how coach provision could be improved to balance the needs of the tourist industry and the residents and businesses of our cities, towns and communities.

## Policy theme 3.3: Supporting business clusters

**Overview**

3.28 Cambridgeshire and Peterborough are home to more than 150,000 businesses[21], from independent traders to small family firms and large, multinational companies. Every business relies, at least in part, on our transport network: from allowing their employees to travel to work or exporting their produce to elsewhere in the country. Good transport accessibility, facilitating fast and reliable travel, is therefore key to supporting our strong economy.

3.29 Our region is home to a wide range of business clusters, each of which with their own requirements for the transport system. Peterborough is home to a significant cluster of advanced manufacturing firms, including Perkins Engines, Dresser-Rand and Redring Xpelair, many of which rely heavily on good road connectivity for exporting their products and for access to their supply chains. Agri-tech firms, including in Fenland and East Cambridgeshire, similarly rely on access to the highway network, and to key international gateways, for exporting their produce.

3.30 Cambridge and its surrounding science and business parks, such as the Cambridge Biomedical Campus, Cambridge Science Park and Wellcome Genome Campus, are home to internationally-renowned clusters of bio-tech, software and IT firms, such as AstraZeneca. These firms rely heavily on the productivity (or agglomeration) benefits of being located in close proximity to each other for knowledge sharing and access to deep, highly skilled labour markets. Such firms therefore depend heavily on good local connectivity to each other, together with good regional connectivity for providing access to commuter markets and to businesses elsewhere (such as London).

**Policy Summary**

3.31 Our policies are intended to support our businesses succeed, and in turn best support our economy and our people. They are intended to ensure that businesses can trade effectively, importing and exporting their products seamlessly, and facilitating key business linkages that support our economy across all sectors and locations. Our policies and projects to enable staff to more easily travel to work, and to expand labour markets, are outlined in policy theme 2.2 (Expanding labour markets).

3.32 We will therefore work, in collaboration with our partners, to:

- invest in our rail and highway networks to allow our firms and workers to trade and travel easily across the country and abroad; and
- improve local connectivity to bring firms and workers in our towns and cities closer together, especially in rural areas to promote jobs growth.

3.33 Greater detail regarding our proposals to improve freight linkages are outlined in policy theme 3.4 (Freight).

[21] Source: **Cambridgeshire and Peterborough Independent Economic Review** (Cambridgeshire & Peterborough Independent Economic Commission, CPIEC, 2018)

*Policy 3.3.1: Invest in our rail and highway networks to allow our firms, organisations and workers to trade and travel easily across the country and abroad*

3.34 Our firms trade extensively with those elsewhere, both across the region, the country, and the world. Key to enabling this trade, and the imports and exports of goods, are efficient rail and road linkages for freight to allow them to be traded seamlessly and affordably.

3.35 Our proposals for moving goods across the region are outlined in detail in policy theme 3.4 (Freight). It outlines how we will:

- promote rail freight, including the transfer of road freight onto rail;
- promote appropriate Heavy Commercial Vehicle routing through identified road freight corridors;
- promote sustainable urban freight distribution;
- improve road freight facilities; and
- support efficient air freight and the aviation sector.

3.36 Our businesses, particularly in service sectors, also rely on the transport network to travel to meetings and appointments and visit clients and customers elsewhere. We will therefore continue to invest in capital projects to improve key highway links, both for business travel and freight movements, including to both key freight linkages (such as Harwich and Felixstowe) and to important business destinations (such as the Cambridge Science Park and Alconbury Weald Enterprise Zone). More than 75% of UK freight is moved by road[22], yet many important links suffer from worsening congestion, imposing additional costs on businesses and eroding their competitiveness.

3.37 Our detailed proposals for investment in the Key Route Network are outlined in policy theme 20 (Making long-distance journeys by car). In summary, we will prioritise investment in the dualling of the A10 and A47, which provide key links to manufacturers and agri-tech firms in Fenland and East Cambridgeshire to the national highway network, and key gateways at Harwich, Felixstowe and Stansted. We will also work with Highways England to support their proposed improvements to the strategic highway network, including:

- dualling of the A428 between Cambourne / Caxton Gibbet and St Neots / Black Cat; and
- upgrading the A1 between Baldock (near Biggleswade) and Brampton (near Huntingdon).

3.38 Rail connectivity is also particularly important for facilitating business travel: nationally, 9% of rail journey are for business purposes, and our region's rail links to London in particular are heavily used by business travellers. We will therefore continue to work with our rail industry partners: the Department for Transport, Network Rail and operators, to improve the rail network, as outlined in policy theme 17 (Travelling by train), including through:

- increasing frequencies and reducing journey times on key rail routes, such as between Cambridge and Peterborough;
- investing in our rail stations to improve the experience of travelling by train; and
- exploring options to expand the rail network to link to new settlements, corridors and growth areas, such as a new rail link to Wisbech, a new station at Soham and a travel hub at Alconbury Weald.

[22] Source: **Transport Statistics Great Britain** (Department for Transport, 2017)

3.39 Combined with investment in our key route network, these schemes will improve key linkages with the rest of the country and help our businesses compete and prosper.

*Policy 3.3.2: Improve local connectivity to bring firms and organisations in our towns and cities closer together*

3.40 Many businesses rely on close proximity to one another, and access to extensive labour markets, for their success. Such 'clustering', both physically and through good transport connectivity, as it facilitates greater collaboration and competition between firms. Greater proximity allows firms to benefit from best practices, access to deeper labour markets, and reduce costs by sharing resources. Customers also have access to a wider range of businesses to buy from, driving up competition and encouraging them to offer better value for money.

3.41 Particularly for the most high-value, knowledge-intensive firms – such as those within bio-tech or research and development in Cambridge, or advanced manufacturing in Peterborough – these linkages are critical to why such companies locate in the region. Firms at the Cambridge Science Park, for example, are prepared to pay a significant premium in rent to locate near to their competitors – other suitable sites, located less than half an hour's drive away, are significantly cheaper to locate at, but are unappealing for firms as they lack the density of firms elsewhere. Location and accessibility matter.

3.42 In order to facilitate the expansion of such knowledge-intensive firms, it is key that sites are available that are well-connected, both physically and virtually, to other nearby business 'clusters', between clusters and with their markets. These include both current employment sites, and those being brought forward in the Local Plan process and the future Combined Authority Non-Statutory Spatial Framework. Our proposals, working in partnership with Local Highway and Planning Authorities, will help to ensure excellent connectivity between these key employment sites to support the 'clustering' which is key to productivity, and ensure the benefits of clustering are spread across our entire region. These policies are outlined in policy theme 7.2 (Promoting and raising awareness of sustainable transport options), policy theme 17 (Travelling by train), and policy theme 15 (Improving public transport in our towns and cities) and focus on:

- promoting 'whole journey' thinking: creating complete, seamless journeys on public transport;
- involving our firms and organisations in transport planning;
- investing in good walking and cycling infrastructure, enabling people to travel short distances quickly and safely, sustainably;
- continued improvements to rail links and frequencies, both intercity and within urban areas;
- continued improvements to our bus networks, including new routes, increased frequencies, interchanges, and better-quality services – to reduce the perceived 'cost' of travelling between and across our towns and cities;
- developing proposals for a mass transit network, Cambridgeshire Autonomous Metro (CAM), to provide seamless connectivity between our key business clusters, transforming business and labour market connectivity; and
- implementing digital connectivity infrastructure alongside transport infrastructure, where feasible, to support better connectivity across the area.

## Policy theme 3.4: Freight

**Overview**

*Driving the local economy*

3.43 The freight and logistics sector is critically important to the competitiveness and growth of our economy. Over 18,000 people are employed directly in the sector, about 5.4% of the workforce[23]. Nationally, the sector employs 1.6 million people, and a further 2.3 million people in related sectors[24]. Nearly every product we buy will at some stage form part of the 1.7 billion tons of freight carried annually on the Strategic Road and Rail Networks nationally.[25]

3.44 The local share of this is set to increase - strong growth in our economy in Cambridgeshire and Peterborough, as well as significant levels of housing and employment development; the largest planned transport investment programme in the area's history; and major port and airport development across the wider south east of the country, means the need for freight and volumes of freight traffic are on the rise. National forecasts estimate that all road traffic could increase by 30 percent, rail journeys by over 40 percent, and rail freight has the potential to nearly double by 2030.[26]

3.45 Cambridgeshire and Peterborough lie on several national strategic transport corridors, and as such much of the traffic on the Strategic Rail and Road Networks and Primary Road Network in Cambridgeshire and Peterborough is freight passing through the area. We are situated at a crossroads with access east-west to the Haven Ports – Felixstowe and Harwich – and to the Midlands, particularly using the A14 and Felixstowe to Nuneaton rail corridor; as well as north-south to Stansted, London and the South Coast ports – Dover and Southampton – and northwards through the Midlands to Yorkshire, Humber and beyond.

*Local impacts and global effects*

3.46 However, freight traffic, particularly by road and when not managed effectively, can have a negative impact on local communities through congestion and unsuitable diversions and routing, road safety issues, poor air quality, impacts on quality of life and well-being, and on biodiversity, landscapes and historic environments. The A14 between Huntingdon and Cambridge is one of the most congested Strategic Road Network links in the country with more than 13 seconds average delay per vehicle mile [27], and the estimated cost of this delay in the region is £80 million each year. Improvements to the A14 are currently underway including a new bypass to the south of Huntingdon and upgrades to a 21-mile section. Work is due to be complete in 2020[28].

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[23] Source: **Business Register and Employment Survey** (Office for National Statistics, 2016)

[24] Source: **Logistics Report** (Freight Transport Association, 2016)

[25] Source: **Transport Statistics Great Britain: Table TSGB401** (Department for Transport, 2015)

[26] Source: **Road traffic forecast figures, National Transport Model** (Department for Transport, 2014); **The UK passenger rail system: how and why is it changing?** (Government office for Science, 2018); **Freight Network Study** (Network Rail, 2017)

[27] Source: **Ports Connectivity Study** (Department for Transport, 2018)

[28] Source: **A14 Cambridge to Huntingdon improvement scheme** (Highways England, 2018)

3.47 In addition, freight traffic contributes to climate change through emissions of greenhouse gases. In 2014, Heavy Commercial Vehicles were responsible for 17 percent of total UK transport emissions. It is Government policy to tackle road freight emissions given the lack of a clear technological solution at present and Government will publish a Clean Growth Plan, which will set out the steps being taken to keep the UK on track to meeting the fourth and fifth carbon budgets. This will include proposals to decarbonise transport over this period.[29]

*Local priorities – mode shift to rail and partnership working*

3.48 Promoting rail freight is key to the Combined Authority's policy and is also backed extensively by national policy[30], "The railway must… provide for the transport of freight across the country, and to and from ports, in order to help meet environmental goals and improve quality of life." Rail freight transports over 100 million tonnes of goods per year. The amount of freight moved has expanded by 75% since 1994/95. Total tonne kilometres are forecast to grow by 3% annually to 2043, the same rate as the growth seen in the mid-1990s.[31]

3.49 Given the strategic and often long-distance movement of freight, working in partnership across the region is important. Cambridgeshire County Council and Peterborough City Council are part of the Regional Freight Quality Partnership. The authorities will work with our neighbouring counties and partners to improve Heavy Commercial Vehicle management around the 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. Current partners are:

- the Freight Transport Association;
- the Road Haulage Association;
- Highways England; and
- neighbouring Local Highway Authorities in the east of England, including Bedford, Central Bedfordshire, Peterborough, Norfolk, Essex and Suffolk.

3.50 The partnership is working with Highways England to explore the possibility of providing more secure overnight parking facilities along the A1/A1(M), A47, and A14 to reduce the numbers of drivers driving further when tired and parking inappropriately in villages.

**Policy Summary**

3.51 In short, the policies to support the sustainable and efficient movement of goods across the region aim to:

- promote rail freight, including the transfer of road freight onto rail;
- promote and enforce appropriate Heavy Commercial Vehicle routing;
- promote sustainable urban freight distribution;
- improve road freight facilities; and
- support efficient air freight and the aviation sector.

[29] Source: **Transport Investment Strategy: Moving Britain Ahead** (Department for Transport, 2017)

[30] Source: **National Policy Statement for National Networks** (Department for Transport, 2014)

[31] Source: **Freight Market Study** (Network Rail, 2013)

*Policy 3.4.1: Promoting rail freight*

3.52 The Combined Authority will:

- promote the use of rail freight for the movement of goods to, from and through the Cambridgeshire and Peterborough area, particularly for heavy goods, such as aggregate for the construction sector; and
- promote the investigation of the potential for a site within the Cambridgeshire and Peterborough area for inter-modal freight transfer, to help minimise the number of trips made by commercial vehicles, and to provide local employment.

*Policy 3.4.2: Promoting and enforcing appropriate Heavy Commercial Vehicle routing*

3.53 The Combined Authority and the two Local Highway Authorities will:

- continue to review suitable Advisory Freight Routes and develop and regularly update a single Advisory Freight Map[32] for Cambridgeshire and Peterborough, including online route planning and navigation;
- review signing of diversionary routes and signing between the Strategic Road Network and local advisory routes to increase compliance;
- investigate the potential for automation of road freight on key arterial corridors and air freight (i.e. drones), and partner with the private sector to pilot trials; and
- ensure that, where relevant, routing agreements will be agreed with operators as part of planning permissions.

*Policy 3.4.3: Promoting sustainable urban freight distribution*

3.54 The Combined Authority and the two Local Highway Authorities will:

- continue to promote voluntary covenants, in the form of Lorry Routing Agreements, for freight operators regarding routing, parking and driver behaviour;
- promote and coordinate public transport or other shared mobility solutions between key logistics hubs and public transport hubs / residential areas for employees in the freight and logistics sectors;
- support the development of Delivery and Servicing Plans for locations that generate significant freight movements, recognising the need for an integrated policy which does not inadvertently increase freight movements;
- support the development of design codes for new development and infrastructure which prevent the inadvertent restriction of efficient delivery and servicing. This principle is supported by the National Planning Policy Framework: *"Applications for development should… allow for the efficient delivery of goods, and access by service and emergency vehicles";*[33]
- develop principles for the implementation of weight or other restrictions (e.g. vehicle width) for routes and communities for which Heavy Commercial Vehicles should not travel along or through, recognising the costs of enforcement and
- support the assessment of the feasibility of a Low Emission Zone and Charge for Cambridge and the impacts of different emission standards on air quality and freight operations and travel patterns.

[32] See: Cambridgeshire County Council has an **Advisory Route Map** for road freight.

[33] Source: **National Planning Policy Framework** (Ministry of Housing, Communities and Local Government, 2018)

*Policy 3.4.4: Improving road freight facilities*

3.55 The Combined Authority promotes the:

- identification and protection of strategic sites through the Local Plan process for commercial development in the logistics sector; HGV parking and driver facilities; and freight consolidation;
- investigation of the need for additional layby facilities and fixed site parking and rest facilities, including for overnight rest stops; and
- use of Park & Ride facilities and other sites with high levels of parking for 'click and collect' type facilities; and for development of consolidation facilities for onward delivery into cities and towns, including promotion of electric vehicles and charging points, powered two-wheelers (e.g. motorbikes and motor-scooters), and human powered modes (e.g. cargo bikes).

*Policy 3.4.5: Supporting efficient air freight and the aviation sector*

3.56 The Cambridgeshire and Peterborough Combined Authority acknowledges the importance of air freight, particularly for transporting high-value, fragile and perishable or time-sensitive goods. Freight arriving and departing from Stansted does so through a combination of dedicated freight aircraft and 'belly-hold' cargo in passenger planes[34]. Integrators – companies such as DHL, FedEx, TNT and UPS – that control the logistics chain from pick-up to delivery predominantly carry express-like products and are concentrated in the UK at Stansted and the East Midlands. The Combined Authority recognises the need for, and promotes, efficient surface access to Stansted Airport for road and rail freight.

**Projects**

*Rail Schemes*

3.57 The Combined Authority supports the schemes identified within Network Rail's Freight Network Study (2017)[35] to improve capacity along the Felixstowe to Nuneaton corridor:

- a loop facility at Haughley Junction, including track doubling of the junction;
- increased frequency of rail freight movements at Bury St Edmunds;
- infrastructure works at Ely, including the Ely Area Capacity Enhancement (EACE) upgrade; and
- signalling enhancements between Syston East Junction and Peterborough.

3.58 The above schemes are identified by Network Rail as having the highest priority nationally. In addition, provision of a two-track railway between Ely and Soham and capacity improvement schemes in the Leicester area were announced by Government to be funded for delivery in Control Period 5 (2014 to 2019) but these have been deferred and are established priorities for delivery in Control Period 6 (2019 to 2024).

[34] Source: **Assessment of the value of air freight services to the UK economy** (Airlines UK, 2018)

[35] Source: **Freight Network Study** (Network Rail, 2017)

3.59 Further Network Rail schemes supported by the Cambridgeshire & Peterborough Combined Authority include:

- gauge enhancements to make all of the Felixstowe to Nuneaton corridor W12 gauge on the cross-country route via Ely; and
- infrastructure enhancements to increase the speed of trains from 60 miles per hour to 75 miles per hour and to accommodate 775 metre trains.

*Road Schemes*

3.60 Improving the efficient operation of road freight is one of several reasons that the following schemes are promoted by the Combined Authority for the Strategic Road Network:

- A428 dualling and the Oxford to Cambridge Expressway;
- Completing missing dualled sections of the A47;
- increasing the capacity of the A10 (along with parallel sustainable transport infrastructure and relocation of Waterbeach Station);
- a possible M11 to A47 link road; and
- upgrading the A1 between Baldock (near Biggleswade) and Brampton (near Huntingdon).

# 4 Secure resilience and reliability

## Build a transport network that is resilient and adaptive to human and environmental disruption, improving journey time reliability

**Overview**

4.1 Transport systems do not exist in a bubble. By their very nature they are designed to adapt and respond to external inputs, the most obvious of which is the flow of people who move onto and off the network every day. Unfortunately, however, changes in these external factors can overload transport networks, causing disruption to journeys. For example, too many cars on a network can cause traffic; extreme weather can damage infrastructure; a signal failure on a railway line can cause widespread delays. Long-term changes can make these disruptions more common and/or damaging. Changes in demography are altering the ways we use the transport network, for instance, the rise of the internet has and is shifting our working and consumption patterns and climate change will likely make extreme weather events more frequent, severe and unpredictable.

4.2 Disruption decreases the utility of the transport network, making journeys slower and more arduous. We must make sure that the transport network across Cambridgeshire and Peterborough is resistant to disruptions, and when they do occur, we must ensure that the network has the capacity to bounce back as rapidly as possible. We can tackle some current, recurring disruptions, such as traffic congestion in our urban areas, with targeted interventions like road construction and modal shift, but longer-term trends like changes in demography are harder to predict and prepare for. Rather than targeted interventions, preparing for these changes will require integrating 'resilience' and 'the ability to adapt' into our thinking about new transport schemes. Overall, to help improve the resilience of the transport network we will:

- improve our understanding of potential transport disruptors, both current and future;
- target and solve current disruptions, such as traffic congestion, with targeted interventions; and
- make our new schemes resilient and 'future proof' by ensuring they have the capacity to adapt to future trends.

4.3 Achieving these things will ensure that our transport network continues to function effectively, even in 'worst case scenarios', when external factors threaten to cause major disruption to journeys. For residents, this will make journeys more enjoyable and reliable, today and into the future.

## Policy theme 4.1: Building a resilient and adaptive transport network to climate change

**Overview**

4.4 The impacts of climate change being experienced in the UK include hotter, drier summers; milder, wetter winters; more extreme weather events; and rising sea levels – all of which are significant for Cambridgeshire and Peterborough. While exact impacts are difficult to forecast, as one of the driest areas in the UK and a low-lying region, Cambridgeshire and Peterborough are 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 region, as are policies to minimise the contribution of the region to the causes of climate change.

4.5 Measures including both sustainable engineering solutions and new smarter technologies are needed to keep the road and rail network running efficiently regardless of changing weather and climatic conditions. Following Central Government's Climate Change Adaptation reporting[36], Local Highway and Planning Authorities are increasingly developing adaptation plans and are implementing a range of actions to understand and map risks, inform users, and implement actions to manage risks.

4.6 There will be a need to evolve and adapt to meet the needs of the growing population and this gives the Combined Authority the opportunity to design new transport infrastructure and adapt and maintain existing infrastructure for a broader range of climate conditions, thus improving the resilience of the network.

**The Transport Network and Climate Change**

4.7 The vulnerability of the transport network and risks associated with infrastructure that could materialise as a result of a changing climate include the following:

- **Surface transport:**
  - subsidence, heave and landslips due to drought and lower water tables;
  - surface damage to roads, cycleways and pavements due to heat waves in the summer, freeze/thaw in the winter and flooding; and
  - flooding of pedestrian subways.
- **Railway and Busway infrastructure:**
  - network failures due to flooding; and
  - buckling of railway tracks due to excessive heat.

4.8 Risks such as these have the potential to severely disrupt connectivity, damage infrastructure and compromise the safety of passengers and road users.

4.9 To repair damage already caused and mitigate the risk of future impacts on the transport network the Department for Transport's Challenge Fund provides grant funding for schemes to repair drought damaged roads. Cambridgeshire County Council and Peterborough City Council were recently successful in securing funding for a scheme repairing twenty sections of road affected by extreme weather conditions. A total of £3.5 million was secured for the scheme with both councils' contribution bringing the total investment to £6.25 million. This forward-looking approach to road maintenance ensures that the impacts of climate change on the transport network of the Combined Authority are appropriately mitigated.

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[36]Source: **The National Adaptation Programme and the Third Strategy for Climate Adaptation Reporting** (Department for Environment, Food & Rural Affairs, 2018)

**Policy Summary**

4.10 In short, to support the development of a transport network that is resilient and adaptive to climate change we will:

- Identify, understand and manage the risks to the transport network presented by climate change;
- take a sustainable approach to road network maintenance which ensures the safe, efficient movement of goods and people, in a cost-effective manner which minimises environmental and social harm and seeks enhancements wherever possible; and
- utilise proven technologies as they become available.

*Policy 4.1.1: Managing the risks to the transport network presented by climate change*

4.11 The Combined Authority will work with the Local Highway and Planning Authorities 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, technology or other, that arise;
- undertake research to understand the potential impacts of climate change on transport service delivery and develop an appropriate response;
- work with its partners, including Emergency Planning bodies to explore and implement adaptive actions and build resilience in the transport network;
- design and build new transport infrastructure with climate change in mind, ensuring it is resilient to extreme climatic events such as flooding (from excessive rain by the implementation of sustainable drainage solutions) and subsidence (from drought); and
- ensure that changes/ improvements to certain sections of the transport network do not exacerbate flood risk elsewhere.

*Policy 4.1.2: Sustainable road network maintenance*

4.12 The Combined Authority will work with the Local Highway and Planning Authorities to:

- encourage early consideration of sustainable and adaptive design principles (e.g. safety, air quality, social inclusion, and climate change) in scheme design to ensure appropriate risk management measures are implemented and asset lifecycle costs are minimised;
- promote the use of more sustainable materials, which require less frequent replacement and have less negative societal and environmental impact, and where possible positive societal and environmental impact, in their production, transporting to site, use, and disposal;
- promote asset management approaches that actively consider those highways or other assets that are susceptible to climate change and with maintenance regimes adapted and adopted for them; and
- keep up to date with latest climate projections and research and respond appropriately with updates to road network maintenance policies and procedures.

*Policy 4.1.3: Utilising proven technologies as they become available to help the transport network adapt to the challenges presented by climate change*

4.13 The Combined Authority will work with the Local Highway and Planning Authorities to:

- keep up to date with the latest research and policy on new technologies that may become available to help the transport network adapt to the challenges presented by climate change;
- work with Smart Cambridge and Peterborough Smart City team to harness emerging technologies to find smart and innovative ways to ensure resilience of the transport network to the impacts of climate change; and
- support implementation of such new technologies if effective and financially viable.

## Policy theme 4.2: Maintaining and managing the transport network

**Overview**

4.14 Maintaining and managing the assets that form our transport network – roads, guided busway/public transport infrastructure, cycleways, footpaths, streetlights, road signs and other urban fabric – is important to our prosperity and growth and an essential part of keeping our residents and visitors moving. A well-maintained and managed network helps ensure that our journeys around the area are safe, reliable and efficient, at all times and in all weather conditions.

4.15 Funding for local asset management and maintenance of the transport network across Cambridgeshire and Peterborough is provided, predominantly, by Central Government to the Combined Authority. The Combined Authority then transfers funding on a needs-basis to Cambridgeshire County Council and Peterborough City Council as the Local Highway Authorities responsible for asset management and maintenance. Within Cambridgeshire, bus shelters are typically maintained by parish and town councils; street name signs by city and district councils; and car parks are typically managed and maintained by private owners or city and district councils. Conversely, Peterborough City Council owns and maintains these assets itself.

4.16 Both highway authorities have their own suite of policies, strategies, standards and programmes[37]. The feasibility of harmonisation of these will be investigated by the Combined Authority with its Local Highway Authority partners, as well as identifying a Key Road Network for maintenance and management by the Combined Authority, as per the Devolution Deal negotiated with Central Government. For the Strategic Road Network and Rail Network, Highways England and Network Rail, respectively, are responsible for asset management and maintenance.

**4.17** Management and maintenance do not only come in the form of road works or special maintenance during winter or adverse weather conditions. The asset base is diverse and includes everything from bridges cycleways and footpaths to signage, lighting, verges and drains. There is growing recognition of the importance of good design and integrated delivery in maximising the life and capacity of existing assets while considering social and environmental impacts, such as resilience to climate change. In addition, consideration of the waste hierarchy[38] during construction (e.g. using sustainably sourced materials with recycled content or reusing demolition material in new schemes) offers wide-reaching benefits in terms of resource efficiency, sustainability and cost savings.

**Policy Summary**

4.18 In short, the policies to support the maintenance and management of the transport network are:

- investigating the feasibility of harmonising highways maintenance standards and performance indicators;
- supporting highway authorities in minimising the whole life costs of the highway; and
- addressing the challenges of climate change and enhancing our communities and environment from highway asset management and maintenance.

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[37] See: Existing policy, strategy, standards and programme documents for Cambridgeshire County Council can be found **here** and for Peterborough City Council **here**.

[38] Source: **Guidance on applying the Waste Hierarchy**, (Defra, June 2011)

*Policy 4.2.1: Investigating the feasibility of harmonising highways and transport asset maintenance standards and performance indicators*

4.19 The Combined Authority will:

- define a Key Road Network of Local Highway Authority roads for prioritised maintenance;
- be accountable for the management and maintenance of the Key Road Network using an asset management approach, passporting funding to Local Highway Authorities to deliver maintenance and management works;
- allocate funding to Local Highway Authorities to ensure the management and maintenance of the local road network;
- ensure that transport scheme promoters identify within their business cases funding and governance related to short and long-term maintenance of assets;
- investigate the feasibility of harmonisation of highways policy, strategy, operational standards, and programme across the Combined Authority to enable consistent assessment, prioritisation and delivery of highway maintenance works; and
- agree and utilise a suite of key performance indicators to assess how successfully asset management is being applied to local highway maintenance to ensure that comparable value for money is being achieved across the two highway authorities.

*Policy 4.2.2: Supporting highway authorities in minimising the whole life costs of the highway*

4.20 The Combined Authority will:

- encourage highway authorities to involve maintenance teams in the early stages of scheme development to ensure that steps are taken to reduce maintenance costs through life of the highway asset;
- encourage the standardisation of buildings materials used in scheme construction to reduce the renewals costs, including whole life environmental costs;
- work with Local Highway Authorities to investigate sustainable funding mechanisms where ongoing costs are considered, for the installation of smart methods of infrastructure monitoring to reduce the need for costly manual assessment;
- encourage partnership working between Highways Maintenance and Capital Projects to investigate the feasibility of implementing an integrated and coordinated highway works programme; and
- encourage early consideration of sustainable and adaptive design principles (e.g. safety, air quality, social inclusion, and climate change) in scheme design to ensure appropriate risk management measures are implemented.

*Policy 4.2.3 Addressing the challenges of climate change and enhancing our communities and environment*

4.21 The Combined Authority will:

- promote co-ordination of roadworks with other roadworks carried out by Local Highway Authorities and service operators as well as with street works and other opportunities for scheme implementation, such as road safety schemes, to minimise disruption on the network and the associated extra journey times and emissions;
- consider the wider environmental impacts of a scheme and promote the use of more sustainable materials which require less frequent replacement and have less negative societal and environmental impact, and where possible positive societal and environmental impact, in their production, transporting to site, use, and disposal; and
- promote asset management approaches that actively consider those highways or other assets that are susceptible to climate change and with maintenance regimes adapted and adopted for them.

# 5 Embed safety

## Embed a safe systems approach into all planning and transport operations to achieve Vision Zero – zero fatalities or serious injuries

**Overview**

5.1 Everybody should feel, and be, safe when they chose to access our transport network. Cambridgeshire and Peterborough's transport network is relatively safe. However, there is still significant capacity for improvement, mostly on our road network. In 2016, 39 people died on our roads – 39 too many. Nobody should have to risk being killed when they travel, even if the chance of this risk being realised is very slight. We want to achieve 'Vision Zero' – zero fatalities or serious injuries – across the Combined Authority area.

5.2 Achieving this will require focussing new projects around people, their particular needs, patterns and behaviours. The network must be examined at every scale, from curb-heights to area-wide highway network planning. This 'human-centred' thinking must be a central component of our approach across projects and schemes. It is only by integrating this thinking into everything that we do that we can truly have the positive, area-wide impact required to achieve Vision Zero. In summary, the Combined Authority will:

- put people at the heart of decision making;
- work towards eliminating all serious injury or loss of human life on the transport network;
- understand safety issues that may be of concern to specific groups or routes; and
- design a system that is flexible enough to accommodate a range of user requirements

5.3 Following these aims will ensure that Cambridgeshire and Peterborough's transport network is one that more effectively looks after those who choose to use it. Along with the specific policies outlined below, this attitude must be one which permeates all of the projects and schemes which we deliver across the area.

## Policy theme 5.1: Safety for all – a safe systems approach

**Overview**

5.4 Every death and life changing injury on Cambridgeshire and Peterborough's roads is one too many, and the social and economic burden of road casualties is felt beyond those immediately involved in the collision. Our vision is to prevent all road deaths across Cambridgeshire and Peterborough and to significantly reduce the severity of injuries and subsequent costs and social impacts from road traffic collisions. To achieve this vision, we will support the work of the Cambridgeshire and Peterborough Road Safety Partnership, which, in collaboration with Highways England, Department for Transport and local highways authorities, is responsible for road safety in our area. The Cambridgeshire and Peterborough Road Safety Partnership has adopted a Safe System Approach to road safety management, based on the principle that our life and health should not be compromised by our need to travel.

*Cambridgeshire and Peterborough Road Safety Partnership*

5.5 In 2007, the Cambridgeshire and Peterborough Road Safety Partnership was founded to ensure a joined-up approach to road safety in the area. Its vision, strategy, roles and responsibilities were specified on the basis of stakeholder consultation as well as a review of nationally and internationally adopted policies and frameworks.

5.6 The Cambridgeshire and Peterborough Road Safety Partnership is made up of the following organisations:

- Peterborough City Council;
- Cambridgeshire County Council;
- Highways England;
- Cambridgeshire Constabulary;
- Bedfordshire, Cambridgeshire and Hertfordshire Joint Protective Services;
- Cambridgeshire Fire & Rescue Service;
- Joint Cambridgeshire and Peterborough Public Health team;
- Road Victims Trust; and
- East of England Trauma Network.

*A Safe Systems Approach*

5.7 Safe systems are designed with the human being at its centre, taking human fallibility and vulnerability into account, and accepting that even the most conscientious person will make a mistake at some point. The goal of Safe Systems is to ensure that these mistakes do not lead to a crash; or, if a crash does occur, it is sufficiently controlled to not cause a death or a life-changing injury.

5.8 Responsibility for the system is shared by everyone. Policy makers, planners, engineers, vehicle manufacturers and road safety educators are accountable for the system's safety; while every road user, whether they drive, cycle or walk, is responsible for complying with the system's rules.

5.9 A Safe System Approach aligns road safety management with broader ethical, social, economic and environmental goals. By creating partnerships where government or transport agencies work closely with other groups, Safe Systems also tackles other problems associated with road traffic, such as congestion, noise, air pollution and lack of physical exercise.

5.10 Today, Safe Systems is considered to be international best practice in road safety by the World Health Organisation and the Organisation of Economic Cooperation and Development. Both organisations recommend that all countries, regardless of their level of road safety performance, follow a Safe System Approach.

5.11 Safe System has not yet been adopted by the UK government as a whole. However, Highways England has a Safe System Approach at its heart, focusing its strategy on "safer vehicles, safer roads for safer people". In addition, the Department for Transport has recently published a Road Safety Management Capacity Review[39] whose principal recommendation is the national adoption of a Safe System Approach.

**Policy Summary**

5.12 In short, the policies to support the adoption of a Safe System Approach in the Combined Authority are:

- a multi-agency approach to improving road safety;
- continuous and comprehensive monitoring and evaluation of key road safety indicators by CPRSP, with support from the Combined Authority;
- supporting improvement in road user behaviour through education, training and publicity programmes; and
- adoption of the Safe System Approach into the mainstream of highway engineering.

*Policy 5.1.1: A multi-agency approach to improving road safety*

5.13 The Combined Authority will support the work of the range of agencies and public service providers involved in the planning for and delivery of road safety via the Cambridgeshire and Peterborough Road Safety Partnership. The rest of the policies set out the different components of a Safe System approach and separates out education, training, publicity and engineering. These components are interdependent and must be combined. For example, many behaviour change interventions will need to consider some form of physical change to the environment and many engineering interventions require supporting communications.

*Policy 5.1.2: Continuous and comprehensive monitoring and evaluation of key road safety indicators*

5.14 The Combined Authority will support the Cambridgeshire and Peterborough Road Safety Partnership in:

- monitoring and evaluating a wide range of indicators to assess performance and identify emerging priorities in road safety in line with the recommendations of Department for Transport's Road Safety Management Capacity Review;
- using the findings of this monitoring and evaluation to inform a local road safety performance framework with reference to the proposed national framework; and
- publish regular reports on the findings of road safety indicator monitoring and evaluation.

[39] Source: **Road Safety Management Capacity Review** (Department for Transport, 2018)

*Policy 5.1.3: Support improvement in road user behaviour through education, training and publicity programmes*

5.15 The Combined Authority will support the Cambridgeshire and Peterborough Road Safety Partnership in:

- working with the highway authorities to ensure funding for road safety education and training and for undertaking road safety publicity campaigns is sufficient;
- establishing a road safety hub which will provide a single point of contact for road safety information and advice, and improve the presentation of data and information to the public and other agencies;
- working with a range of agencies to ensure that road safety education (including motorcycle awareness), training and publicity are not delivered in isolation but as part of a holistic approach across transport, public health and community safety;
- promoting Safe Systems as the new transport safety culture through community engagement strategies; and
- implementing road user behaviour change interventions and programmes for primary, secondary schools and colleges, businesses and communities across Cambridgeshire and Peterborough that are evidence-led and consider an appropriate combination of education, enforcement and engineering approaches.

*Policy 5.1.4: Adoption of the Safe System Approach into the mainstream of highway engineering*

5.16 The Combined Authority will support Cambridgeshire County Council and Peterborough City Council in:

- encouraging local highway authorities to review local road classification to ensure that speed limits match function, road design and layout to conform with Safe System principles;
- identifying road sections for priority treatments on the primary road network using the International Road Assessment Programme (iRAP) star rating and risk mapping tools, or similar; and
- review priority interventions for local/rural roads with due regard to the central role of speed and its management to a Safe System Approach.

## Policy theme 5.2 Ensuring transport security

**Overview**

*Personal safety and security*

1.2 Crime and fear of crime on the transport system can have a major effect on people's willingness to travel and their ability to access jobs and key services. Personal security is important in enabling people to feel comfortable about walking, cycling, and using public transport, taxis and private hire vehicles. Effectively addressing crime and fear of crime around transport can therefore not only improve accessibility, promote public transport use and contribute to reducing congestion but can also benefit the local economy, especially the night-time economy and jobs requiring shift work, by helping people to make the journeys they want.

5.17 The Ministry of Housing, Communities & Local Government's (MHCLG) National Planning Policy Framework[40] emphasises that designing-out crime and designing-in community safety should be central to the planning, delivery and upkeep of new and existing developments and public spaces. In addition, section 17 of the Crime and Disorder Act 1998 (England & Wales)[41] requires all Local Authorities to exercise their functions with due regard to their likely effect on crime and disorder, and to do all they reasonably can to prevent them. The design and maintenance of public transport infrastructure (e.g. bus and light rail stops and shelters, stations and interchanges) is therefore an important factor in improving perceptions of the ease, security and comfort of travelling by public transport and consequently in delivering the congestion, pollution, accessibility, and safety benefits of increased public transport patronage.

*Terrorism*

5.18 The protection of people and infrastructure from terrorism is a priority for government and transport operators. There is a range of security requirements and guidance already in place to help transport operators deter acts of terrorism, including removing potential concealment opportunities at their stations[42]. Immediately outside the station boundary however, the public environment offers significant potential for further reinforcing and enhancing these security principles, to improve safety.

[40] Source: **National Planning Policy Framework** (Ministry of Housing, Communities & Local Government, 2018)

[41] Source: **Crime and Disorder Act 1998, Section 17** (UK legislation, accessed 2019)

[42] Source: **Guidance to local authorities: Mitigating security vulnerabilities outside railway, bus and coach stations** (Department for Transport, 2017)

**Policy Summary**

5.19 In short, the policies focused on transport security within the Combined Authority area aim to:

- address personal safety and security issues; and
- improve the security of public transport stations and hubs.

*Policy 5.2.1: Addressing personal safety and security issues*

5.20 The Combined Authority will work in partnership with the police, and Local Authorities to:

- address evening, night time, and early morning safety issues by illuminating urban routes in line with the street lighting standards detailed in the Streetlighting Development Specification;[43]
- make best use of location-specific data to target security enhancements, including Closed Circuit Television (CCTV) cameras, at crime 'hotspots';
- 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 walking and cycling routes that are visible to passing traffic, houses and/or shops, rather than routes in isolated areas; and
- report on and monitor key crime statistics at an area-wide level.

*Policy 5.2.2 Improving the security of public transport stops, stations and hubs*

5.21 The Combined Authority, working with Local Highway and Planning Authorities will:

- work with public transport operators, police, community safety partnerships, and passenger and user groups to tackle crime and anti-social behaviour at bus and rail stops/stations, and to reduce the perception and fear of crime, particularly for vulnerable groups;
- encourage operators/owners to provide suitable staff oversight of facilities and campaigns promoting awareness of security among passengers;
- liaise with operators of the railway stations in the Combined Authority area, the British Transport Police (local police force in the case of bus and coach stations), and passenger and user groups regarding the location of street furniture and other assets (e.g. litter bins, bicycle racks, CCTV coverage, hostile vehicle mitigation measures), and share good practice security thinking;
- apply appropriate on- and off-street parking controls in the vicinity of stations; and
- continue to work with developers, and other bodies, for example Network Rail, to ensure that:
  - safe and usable transport provision is made available in new developments and in the design and construction of new public transport stations/hubs; and
  - master-planning approaches have transport safety and security as key objectives.

[43] Source: **Streetlighting Development Specification** (Cambridgeshire County Council, 2016) and **Street Lighting Specification** (Peterborough City Council, 2017)

# 6 Deliver affordable and accessible transport networks

## Promote social inclusion through the provision of a sustainable transport network that is affordable and accessible for all

**Overview**

6.1 We see access to the transport network as a fundamental right, which should be enjoyed by all of our residents who choose to do so. Currently, access to the transport network across Cambridgeshire and Peterborough is highly variable; the network has good provision for certain geographies and certain types of trips, but very poor provision for others. We want to make the transport network function effectively for all users. Doing so should help to foster better social inclusion, by providing access to jobs and amenities for residents across the social and geographical extent of the Combined Authority.

6.2 We see 'sustainable' transport as being a critical tool for helping to achieve these aims. 'Active' transport modes such as walking and cycling are cheap and efficient, and have the additional 'side-effects' of improving public health and air quality. For those who cannot use 'active' modes - for instance, those with limited mobility – we must improve the public transport network, providing wider-ranging and higher-frequency services. This is particularly the case in rural locations, which are seeing poor and worsening public transport services. We also want to encourage people to pair 'active' and public transport modes, using walking or cycling for 'first and last-mile' connectivity and public transport to cover the body of their trips. Overall, this will help to reduce 'car dependency', and ensure that all individuals always have the option of using an affordable, high-quality, sustainable travel option when they want to make a journey.

6.3 Critically, we also want to ensure that everyone is safe when they use the transport network, and never feel barred from doing so due to concerns about their safety, or other personal circumstances such as income, age, disability, car availability or any other factors. To achieve these aims the Combined Authority will:

- encourage the roll-out of wider 'active' transport infrastructure;
- promote the use of 'active' modes wherever possible;
- invest in improved public transport, particularly in areas which currently have poor network coverage;
- understand safety issues that may be of concern to specific groups or routes; and
- design a system that is flexible enough to accommodate a range of user requirements.

6.4 Following these aims will ensure that Cambridgeshire and Peterborough's transport network is one which works for all residents, providing them with the connectivity they require, and looking after them more effectively when they choose to use it.

## Policy theme 6.1: Transport accessibility for all

**Overview**

*Accessibility and inclusivity*

6.5 Our mobility and transport connectivity enables us to see family and friends, get to a hospital appointment, enrol on a course at a local college, as well as seek and access employment opportunities. Accessibility to the transport network and onwards to key services and opportunities can make the difference between feeling socially isolated and feeling socially included. But transport can also be a barrier, particularly for vulnerable people including young people, some elderly people, people with learning disabilities and people with limited mobility. Challenges can include difficulty physically accessing services, struggling to plan journeys due to a lack of accessible and coordinated travel information, language and communication barriers, or residing in areas poorly served by public transport.

6.6 Despite Cambridgeshire and Peterborough being a relatively prosperous area, significant variations in health, educational attainment, and employment opportunities exist – for example, unemployment rates in Fenland and Peterborough are twice those of South Cambridgeshire[44]. One specific issue that is receiving increased attention locally is access to health provision. There are health inequalities throughout the region with better overall health outcomes observed in the south of the Combined Authority area and worse in the north, although individuals with disability and ill heath live across the area. In general, areas to the north of Fenland, north and south-west of Huntingdonshire and the north of South Cambridgeshire have relatively poor access to hospital by public transport/walking. In more rural areas, improving accessibility could increase take-up of health services. Increased access to treatment among older or vulnerable people would also have a positive impact on quality of life.

*Accessibility for people with limited mobility*

6.7 Quality of life for older and vulnerable people is, however, about being able to lead a full, active and independent life, not just about being able to access essential appointments. Creating transport networks that enable individuals' social connections and facilitate connections within and between communities helps to tackle wider aspects of health and wellbeing, including reducing loneliness – a factor that research now shows is as damaging to our physical health as smoking[45].

6.8 In July 2018, the Department for Transport published *The Inclusive Transport Strategy: Achieving Equal Access for Disabled People*[46]. Its vision is "for disabled people to have the same access to transport as everyone else [and to be able to] travel confidently, easily and without extra cost". One of the key ways in which it is proposed that this be achieved is not just through improved accessibility (i.e. retrofitting existing infrastructure to meet the needs of disabled people) but through inclusivity (i.e. with services designed in dialogue with disabled people and other groups so that the needs of transport users are identified upfront).

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[44] Source: Cambridgeshire and Peterborough Local Transport Plan: Evidence Base (Steer, 2018)

[45] Source: **A Connected Society. A Strategy for Tackling Loneliness – Laying the Foundations for Change** (Department for Digital, Culture, Media and Sport, 2018)

[46] Source: **The Inclusive Transport Strategy: Achieving Equal Access for Disabled People** (Department for Transport, 2018)

6.9 The Combined Authority recognises the large-scale benefits of creating an inclusive transport system: one that enables people to access key services and opportunities, to see friends and family, or simply 'leave the house for its own sake'.

*Community and rural transport*

6.10 Some parts of Cambridgeshire and Peterborough that are without conventional "fixed route" or accessible public transport have community transport schemes that operate on a more flexible, demand responsive basis and are sometimes operated by dedicated volunteers. These types of service offer an important transport option for many people, particularly in rural areas where people can live a large distance from key services and amenities. In rural areas, more innovative approaches to public transport provision are utilised in order to meet the needs of vulnerable and rural communities and enhance equality of opportunity for both essential and non-essential journeys. The community transport offer includes:

- **Dial-a-ride**: schemes under the 'umbrella' of Dial-a-Ride that provide transport for groups and individuals who otherwise have difficulty accessing public transport, typically on a door-to-door basis.
- **Non-emergency patient transport services (NEPTS)**: takes patients who are frail or need specialist assistance to and from appointments at hospitals, treatment centres and other similar facilities.
- **Rural Hoppa services**: a voluntary, not for profit, organisation whose objectives are to provide transport for the elderly and disabled, within the rural area of Ramsey and its surrounding villages.
- **Shopmobility schemes**: lends manual wheelchairs and powered scooters to members of the public with limited mobility to shop or visit leisure and commercial facilities within the town, city or shopping centre.
- **Taxicard schemes**: contributes towards the cost of taxi journeys for people who have difficulties getting or using public transport.
- **Hiring community transport vehicles**: provides options for local community-based groups or families who have a wheelchair-bound member in their party.
- **Voluntary/community car schemes**: offers organised lifts to those needing to make essential journeys where no suitable public transport services exist.

*School and young person's transport*

6.11 In all areas of the Combined Authority, 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. The sustained decline in car use among young adults in the UK[47], often attributed to changes in socio-economic conditions and increases in the cost of motoring, especially insurance, mean that other modes must present a reliable alternative.

[47] Source: **Young People's Travel – What's Changed and Why?** (The Centre for Transport & Society, UWE Bristol & Transport Studies Unit, University of Oxford, 2018)

6.12 Vulnerable children and young people, such as those with a Statement of Special Educational Needs or an Education, Health and Care Plan (EHCP), may receive free transport to their school or college in the Combined Authority area, as outlined in Cambridgeshire's *Home to School/College Travel Assistance Policy*[48] and Peterborough's *School Transport Policies*[49]. Cambridgeshire and Peterborough also support children in social care with their transport needs where assistance from carers or use of public transport is not viable. These services are provided through voluntary drivers, the use of in-house vehicles or by commissioning external providers[50].

*Information and infrastructure*

6.13 Timely and accessible information both before and during a journey, which is tailored to the needs of vulnerable people, plays an important role in giving people the confidence to travel. Respondents to *The Inclusive Transport Strategy's* consultation focussed on the need for more accessible journey planning information as well as real-time information on the availability of assistance and services (such as toilet facilities) as being fundamental to reducing levels of anxiety and increasing confidence to travel.

6.14 Transport infrastructure must also meet the needs of vulnerable users. For example, train and bus stations should include appropriate toilet and changing facilities, straightforward signage, audio and visual messaging and space to navigate. Sufficient, appropriate information and space are also important for increasing passengers' confidence and comfort when onboard public transport.

6.15 Travelling to and from points in the transport network often happens via streets and roads, which make up around three quarters of all public space. Their appearance, and the way in which they function, has a significant impact on people's lives. Well-maintained pavements, appropriately placed dropped kerbs, regular places to sit/rest, good lighting and navigable and legible routes in our public realm are important in making these spaces accessible to everyone.

*The future of inclusive transport*

6.16 The Future of Mobility grand challenge[51], one of the four major trends established in the Industrial Strategy, recognises that we are beginning to experience profound change in how we move people, goods and services. This is driven by extraordinary innovation in engineering, technology and business models. Technological developments such as more open data, and innovations such as connected and autonomous vehicles (CAVs), and Mobility as a Service (MaaS) business models, have the potential to benefit many people. But it will require industry to adopt an inclusive approach to product and service design, which will need to involve active engagement with all community groups, including more vulnerable groups, to mitigate the risk of accidently 'designing out' sections of society who might benefit most. For example, will autonomous taxis be accessible to those with limited mobility or would an elderly resident feel comfortable waiting and boarding an autonomous vehicle that would then be shared by several other passengers.

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[48] Source: **Home to School/College Travel Assistance Policy** (Cambridgeshire County Council, 2016)

[49] Source: **Peterborough School Transport** (Peterborough City Council, 2016 and 2018)

[50] Source: **Booking Transport for Looked After Children** (Cambridgeshire County Council, 2018)

[51] Source: **The Grand Challenges** (Department for Business, Energy and Industrial Strategy, 2018)

**Policy Summary**

6.17 In short, the policies to support accessible transport throughout the Combined Authority area aim to:

- support and promote demand-responsive community transport services;
- facilitate access to education and wider mobility for vulnerable children;
- improve the accessibility of transport infrastructure;
- promote the provision of accessible transport information; and
- optimise the use of new technologies in improving the accessibility, social inclusion and quality of life of all residents.

*Policy 6.1.1: Supporting and promoting demand-responsive community transport services*

6.18 The Combined Authority will:

- recognise and promote the role of technology in facilitating the operation of, and access to, demand-responsive community transport services;
- work with stakeholders to map fixed transport networks, and current demand-responsive and community transport services, to identify gaps and potential efficiencies;
- recognise and support community transport as a key partner in helping to fill the gaps in public transport provision throughout the region, offering flexibility and choice;
- develop new and innovative schemes in partnership with the District Councils, community transport operators and other stakeholders, including third sector organisations, through an appropriate forum;
- 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 regional level using the Peterborough City Council, Cambridgeshire 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; and
- encourage the expansion of voluntary car schemes.

*Policy 6.1.2: Facilitating access to education and wider mobility for vulnerable children*

6.19 The Combined Authority supports the work of Cambridgeshire County Council and Peterborough City Council. The County and City Councils:

- provide suitable transportation for children with special educational needs and children in social care, who are assessed as ‘entitled’; and
- ensure the vehicle fleet used is suitable to provide transport for vulnerable children, including its composition (age, type emission standards etc.), standards of roadworthiness and maintenance reports.

*Policy 6.1.3: Improving the accessibility of transport infrastructure*

6.20 The Combined Authority will:

- work with owners/operators and local government to promote accessibility improvements to physical transport infrastructure in and around public transport hubs, such as railway and bus stations, and on-board public transport vehicles;
- work with Peterborough City Council, Cambridgeshire County Council and NHS partners to investigate how local journeys to and from hospitals and health care facilities for people with limited mobility and elderly people could be improved through actively considering the location of bus stops and routes;
- continue to provide and maintain suitable levels of parking, in line with minimum standard requirements, for Blue Badge holders in appropriate and accessible locations;
- support proposals to improve the public realm in cities and market towns to ensure they are navigable and accessible by everyone;
- work with Local Planning Authorities to ensure that Combined Authority policies on transport are considered, and included in travel plans, when planning applications are approved;
- ensure that new commercial and residential developments implement measures identified in travel plans to ensure access to key services and facilities is available via accessible modes;
- ensure that all accessibility improvement measures consider the needs of those with disability and mobility difficulties and are compliant with the Equalities Act and Disability Discrimination Act; and
- promote engagement with vulnerable users over the design of future transport infrastructure, vehicles and mobility services in the region to ensure that individuals are not inadvertently excluded from accessing these facilities.

*Policy 6.1.4: Promoting the provision of accessible transport information*

6.21 The Combined Authority will:

- support the provision of transport information in suitable formats for vulnerable users, for example bus and rail timetable information following good design principles for people with limited vision, or in different languages for people with limited English language skills, and travel training for the most vulnerable users;
- support the installation of electronic audio and visual information points to provide live details of bus and train timetables and departures, and origins and destinations;
- promote the provision of information about accessible travel options through promotional events, use of the Combined Authority, Peterborough City Council, Cambridgeshire County Council and District Council websites, advertisements in parish magazines/newsletters and published community transport guides, launch events when new initiatives are agreed, and smarter choices programmes;
- investigate opportunities to utilise electronic media such as mobile phone texting services and Real Time Passenger Information technology;
- promote and support work undertaken by Smart Cambridge to ensure transparent and open access to data regarding transport infrastructure and services; and
- support the deployment of fibre ducting and other digital connectivity infrastructure alongside transport infrastructure, where feasible, to facilitate the provision of accessible transport information.

*Policy 6.1.5: Optimise the use of new technologies in improving accessibility*

6.22 The Combined Authority will work with local partners to roll out a programme aligned to Smart Cambridge and Smart City designation for Peterborough across Cambridgeshire and Peterborough, to ensure new technologies do not a) accidentally 'design out' certain groups from being able to access the transport network; and b) improve the accessibility, social inclusion and quality of life for all residents, through inclusive design, planning and delivery.

## Policy theme 6.2: Transport pricing and affordability

**Overview**

6.23 High bus and rail fares and the cost of owning and running a car, can act as a barrier for people to get to work or access employment or training opportunities, access essential services, or visit friends and family. Being able to afford to travel is key to ensuring social mobility and inclusion, ensuring that our residents benefit from a high quality-of-life and are fully included in society. Transport 'poverty' – where residents struggle to afford to travel to work or to essential services – is a real challenge within some of our communities.

6.24 While Cambridgeshire and Peterborough is broadly a prosperous area, there remain barriers to mobility. Many of our rural areas are largely reliant on travel by private car, with rural travel distances resulting in high fuel costs, which for those on lower incomes can result in a large proportion of income being spent on travel costs. 39% of residents in the Combined Authority live in rural areas, of which 90% own at least one car. Many residents perceive that they have little choice other than to own a car if they are to go about their daily lives[52].

6.25 Across the UK, 9% of households struggle with high motoring costs whilst on low incomes, with 7% of households nationally experiencing 'forced' car ownership, where they cannot sustainably afford to run a car but see owning a car as their only viable means of transport. Amongst this group nationally, more than half are in arrears for unpaid utility bills, and more than 45% cannot afford to adequately heat their home[53]. Such households are forced to cut expenditure in other areas, and or reduce their travel to the bare minimum, increasing social exclusion.

6.26 Bus and rail fares can also present a barrier to travel, especially for those on lower incomes and those out-of-work. Bus and rail fares have risen by 51% and 40% respectively over the ten years to 2018[54], significantly greater than inflation, and the cost of one-off single tickets in particular are viewed as representing poor value-for-money. Whilst those who work full-time, or travel five or more days a week, benefit from a range of discounted season tickets, including for both bus and rail, there are limited options for those who work part-time, or travel infrequently. This places additional costs on those not in full-time employment, who are disproportionately likely to be women or those on lower incomes[55], limiting their ability to seek work and exacerbating social exclusion.

6.27 The Combined Authority will work towards ensuring affordable access to transport for all, in order to improve social mobility and reduce transport 'poverty'. Prioritising investment in public transport, together with new ticketing arrangements to make travelling by bus and rail more affordable, will help to create a genuine alternative to the car for our residents, and make travelling across the Combined Authority cheaper and easier.

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[52] Source: **2011 Census data** (Office for National Statistics, 2011)

[53] Source: **Vulnerability to fuel price increases in the UK: A household level analysis** (Mattioli, G., Wadud, Z. and Lucas, K. 2018)

[54]Source: **Costs, fares and revenue** (Department for Transport, 2018)

[55] Source**: Annual rail fares increase announcement** (Campaign for Better Transport, 2016)

**Policy Summary**

6.28 The Combined Authority will work with its partners to make travelling more affordable for its residents. It aims to create a more inclusive transport system, which enables people to access key services and employment opportunities, and visit friends and family.

6.29 We will, therefore, work with our Local Highway Authority partners, and bus and rail operators, to:

- improve our public transport to provide an affordable alternative to the car; and
- improve the affordability of travelling by bus and rail.

*Policy 6.2.1: Improve our public transport to provide an affordable alternative to the car*

6.30 High-quality, frequent and reliable public transport can act as a viable alternative to the private car, providing a more affordable mode of transport that allows residents to travel to work, for leisure or to see friends and family. Good public transport can therefore act to increase social mobility and reduce transport poverty, by allowing users to make the journeys they need and want to affordably.

6.31 However, elements of our public transport system do not provide a sufficiently high-quality service for residents to view it as a genuine alternative to driving. Reductions in financial support for bus operators has resulted in a reduction in the coverage of the bus network, particularly early in the morning, in the evenings and at weekends, so that it does not fully connect where people live to the destinations they wish to travel to. Shift workers, and those who do not work '9 to 5' hours, are particularly disadvantaged if they can no longer travel to work by bus at the times they require, forcing them instead to travel by car. Bus services can also suffer from poor reliability – in part due to traffic congestion – which extends journey times and undermines their attractiveness to passengers.

6.32 Our proposals to improve public transport are outlined in detail policy theme 15 (Improving public transport in our towns and cities) and policy theme 14 (Rural transport services). In summary, the Combined Authority will work in partnership with Local Highway Authorities, the Greater Cambridge Partnership, and bus and rail operators to ensure that public transport acts as an alternative to the private car through:

- working with bus and rail operators, Network Rail and the Department for Transport to ensure that services best serve patterns of demand, connecting to the places that users wish to travel, while minimising the need for interchange;
- working with bus operators to maximise the opportunity to enhance service frequencies, particularly at evenings and weekends, to ensure that bus services can offer a viable alternative to car ownership, all day, every day;
- working with Cambridgeshire County Council and Peterborough City Council to develop a robust, evidence-based methodology for allocating existing subsidy for bus services, which ensures that available funds are best spent to enhance the overall attractiveness of the network;
- supporting investment in bus priority measures – and, in time, other demand management measures to reduce the effects of traffic congestion – to help reduce journey times, improve journey reliability, and hence improve the attractiveness of bus travel; and
- supporting the delivery of new, segregated public transport corridors linking Cambourne, Waterbeach and Granta Park to Cambridge, as currently being developed by the Greater Cambridge Partnership and local partners; and
- developing proposals for a mass transit network, Cambridgeshire Autonomous Metro (CAM), to provide seamless connectivity between our key business clusters, transforming business and labour market connectivity.

*Policy 6.2.2: Increase the affordability of travelling by bus and rail*

6.33 Many residents can find the cost of bus and rail tickets a barrier to travel, making it difficult for people to make essential journeys and worsening social exclusion. Particularly for those on low incomes, or out-of-work, the cost of public transport can be a barrier to accessing employment or training opportunities, and contribute to 'forced' car dependency where people feel they have no choice but to drive to work, yet cannot sustainably afford to do so.

6.34 Several discounts and tickets are already available to help our residents travel affordably across the Combined Authority. Elderly people aged over 65 qualify for concessionary bus travel, funded by central Government, which provides free local bus travel anywhere in England after 09:30 in the morning. Discounted Stagecoach *Termrider* tickets are available for students in full-time education under the age of 18. Those claiming Jobseekers Allowance or Universal Credit for 3 to 12 months can also travel for half price on Stagecoach bus services through a Jobcentre Plus Travel Discount Card. Multiple season tickets, for discounted weekly, monthly or annual travel, are available for both bus and rail services, and railcards are available for certain groups which provide one third off the cost of rail tickets.

6.35 However, many discounted tickets (such as weekly, monthly or annual seasons) can only be purchased as a 'one off' purchase, requiring a significant financial outlay, rather than spread out over time. Many tickets are especially poor value-for-money for part-time workers, who often travel regularly but not five days-a-week, for which both a season ticket and purchasing singles or returns represent poor value-for-money. Young people not in full-time education, such as those undertaking apprentices, are also at a disadvantage, being required to fund the full cost of their travel but not earning the National Living Wage. New technology, particularly in the form of a wider rollout of smartcards, presents significant opportunities to simplify ticketing and create better-value options for multimodal journeys and 'part-time' seasons.

6.36 We will continue to work with bus and rail operators to ensure travelling by public transport is affordable for all, including opposing above-inflation fare increases and maintaining the range of existing season tickets and discounts. Our detailed proposals for ensuring travelling by public transport is more affordable for our residents are outlined in policy theme 13 (Delivering a seamless public transport system) and include:

- making travel more affordable for regular travellers by offering a greater range of tickets to suit different groups, including:
  - carnets or 'part-time' season tickets, specifically designed for those who travel frequently but not five-days-a-week;
  - cheaper tickets for young people, particularly those not in full-time employment;
- offer attractive multi-operator tickets to make journeys cheaper and easier for passengers where they are required to use multiple operators to make their journeys; and
- support the continuation and expansion of 'PlusBus' tickets to make travelling by rail and bus easier, together with new methods for better integrating bus and rail ticketing using new technology.

## Policy theme 6.3: Access to education and key services

**Overview**

*6.37* Transport provides a vital connection between where people live and essential services and opportunities that allow them to "thrive, achieve their potential and improve their quality of life[56]". This includes access to education, health and social care and employment. Transport services and associated infrastructure can facilitate inclusive access to these services, both for residents and employees of the sector. Where they do not, social exclusion and related impacts such as unemployment, low levels of educational attainment, poor physical and mental health and crime may occur. There are a range of key groups that may be particularly susceptible to exclusion including the unemployed, those in financial hardship, the young, the elderly, those in poor health (either physical or mental), those suffering dependency issues, those experiencing discrimination, those with low educational attainment, those experiencing family breakdown, those in poor housing, victims of crime or those undergoing rehabilitation[57].

*Local Impacts*

*6.38* Despite Cambridgeshire and Peterborough being a predominantly prosperous area, significant variations in health, educational attainment, and employment opportunities do exist. Access to health and social care provision is also a key issue with health inequalities throughout the region and better overall health outcomes observed in the south of the Combined Authority area. In more rural areas, improving accessibility, both physically and virtually, could increase take-up of health services. Increased access to specialist treatment among older or vulnerable people would also have a positive impact on quality of life.

*Local Priorities*

*6.39* The Combined Authority recognises the large-scale benefits to society of creating an inclusive transport system: one that enables people to access key services and opportunities.

**Policy Summary**

6.40 The policies to improve access to education, health, social care and other key services aim to make Cambridgeshire and Peterborough Combined Authority an inclusive community for all. The policies are:

- access to education;
- access to non-emergency healthcare and other key services and amenities; and
- digital inclusion.

*Policy 6.3.1: Access to education*

6.41 The Combined Authority will encourage and support Peterborough City Council and Cambridgeshire County Council to:

- lead a review of post and pre-16 education transport to ensure the system supports those in need, and clearly sets out criteria for support, including initiating discussions with central government to improve the concessionary fares system;

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[56] Source: **Cambridgeshire Local Transport Plan 2011-2031** (Cambridgeshire County Council, 2014)

[57] Source: **The Promotion of Social Inclusion**, (Charity Commission, 2001)

- implement interventions to support post-16 education transport including financial support for those in need;
- implement interventions to support pre-16 education transport including free school transport for those in need;
- implement interventions to support those with special educational needs;
- support travel planning activities to support healthy, greener travel choices for pupils, students and parents (and employees) accessing education sites;
- support small scale infrastructure interventions to improve access to education sites safely;
- support travel training for those who require support to travel independently; and
- support Bikeability cycle training to Level 3 to Year 6 students.

*Policy 6.3.2: Access to non-emergency health and social care, and other key services and amenities*

6.42 The Combined Authority and its Local Highway and Planning Authority partners will:

- ensure new developments, from the start, include provision of transport infrastructure and services for efficient access to key services for residents and employees e.g. to GP surgeries, pharmacies, social care facilities and outpatient departments;
- review accessibility levels to key health and social care services to establish where interventions are required to ensure inclusive access including coverage, hours of operation, integration and affordability of public transport services; and
- continue to support sustained travel planning measures which have the potential to enhance levels of inclusion such as car share and cycle buddy networks.

*Policy 6.3.3: Digital inclusion*

6.43 To support digital inclusion – helping people become capable of using and benefiting from the internet – The Combined Authority and its Local Highway and Planning Authority partners will:

- support investment in digital connectivity infrastructure, information provision and training to help more people to access key services online; and
- use technological solutions to remove traditional barriers to accessing key services.

## Policy theme 6.4: The future of mobility

**Overview**

6.44 The way we travel, as well as the movement of goods and services, around our towns, cities and countryside is changing, driven by extraordinary innovation in engineering, digital and communication technology, and new business models. Significant investments are being made in the electrification and automation of road vehicles; in the modernisation of rail services to deliver higher capacity, speed and connectivity; and in the development of autonomous aerial and marine transport. New market entrants and new business models, such as online and smart-phone enabled ride-hailing services and ride sharing (e.g. Uber Pool), are challenging our assumptions about how we travel.

6.45 Cambridgeshire and Peterborough are at the forefront of this transport innovation and have significant levels of engagement and involvement with parties involved in the implementation of new transport technology. Peterborough has an internationally recognised Smart City Programme and was awarded Smart City status in 2015. Recently, Peterborough City Council has been working in collaboration with the Royal National Institute for the Blind to develop a Smartphone enabled wayfinding system in Peterborough city centre. In addition, the Smart Cambridge initiative has supported autonomous vehicle trialling with Aurrigo, funded research and development, and collaborated with the University of Cambridge to develop an innovative historic and real-time transport database for analysis and digital platform that applications can draw from.

6.46 Key to the success of the Combined Authority's approach to these new transport technologies is that they support long-term transport aspirations. Cambridgeshire and Peterborough aim to achieve this through a variety of means including investigating the use of autonomous shuttles to support first/mile last mile connectivity to transport hubs and harnessing Mobility as a Service to drive modal shift.

6.47 The Combined Authority's open and ambitious approach to new transport technology is in line with Central Government which, in its *Industrial Strategy*, has identified the Future of Mobility as a "Grand Challenge" that requires collaboration across industries and sectors to ensure that its benefits are optimised.[58] As a Mayoral area, the Combined Authority is eligible to bid for the Future Mobility Zones Fund[59], which has a total pot of £90m to spend on projects that trial new mobility services, modes and models.

*Smart Cambridge*

6.48 Within the Combined Authority area, the most comprehensive, integrated and sustained approach to responding to the future mobility challenges and opportunities is the Smart Cambridge initiative[60]. Smart Cambridge is supported by the Greater Cambridge Partnership with involvement from local councils, technology businesses, university researchers, and other partner organisations. It is a rapidly evolving programme investigating and harnessing emerging technologies to improve the economic strength and social and environmental sustainability of the area to find smart ways to tackle challenges, such as transport and air quality.

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[58] Source: **Industrial Strategy - Building a Britain fit for the future** (HM Government, 2018)

[59] Source: **Future Mobility Zones Fund** (Department for Transport, 2019)

[60] See: **Smart Cambridge website**

6.49 Smart Cambridge, through their work are exploring how data, innovative technology and better connectivity can be used to transform the way people live, work and travel in the Greater Cambridge area and beyond actions around each key trend. This work will inform the Combined Authority's policy with regard to Future Mobility. The areas of investigation, research and engagement within each broad theme are outlined below.

Autonomous

- Work with educational establishments, research institutes and the private sector to facilitate trialling exercises in appropriate areas and explore opportunities to provide a national test-bed for trials, aligned with efforts from other authorities around the country.
- Promotion of autonomous technology which encourages an increase in the use of shared transport options such as bus and BRT.
- Investigation of the impact of autonomous car technology on the cities transport network and parking.

Connected

- Development of a transport data platform commercialised for use by app and website developers.
- Engagement with app and website developers to publicise commercialised data platform and encourage new entrants.

Shared

- Engagement with providers of shared mobility services to enable their operations and encourage operation in the public interest through supporting implementation of required infrastructure. Current providers include Mobike; and Ofo.
- Support and promotion of new and existing shared mobility concepts and providers to encourage operation within the area.

On demand

- Encouragement and trialling of emerging, on demand technologies from new entrants to test their feasibility and positive and negative impacts before initiating full operations.
- Support and promotion of new and existing on demand mobility concepts and providers to operate within our area.

Integration

- Acknowledging that integrated ticketing across locations and modes is a step towards *Mobility as a Service*[61], Smart Cambridge is working with Local Highway and Planning Authority partners to convene technology providers and transport operators.
- Encouraging the sharing of data and systems between technology providers and transport operators to enable an integrated ticketing system to be implemented.
- Making the case to local partners to provide seed funding for integrated ticketing infrastructure.
- Seeking guidance from Central Government about the implementation of a Code of Conduct to govern the interaction between technology providers and transport operators.

[61] *Mobility as a Service* is the term for a group of business models that provide transport services to an individual, household or business through a paid subscription using a single gateway, such as a smart-phone application to multiple public transport and shared mobility providers, reducing the need for private car ownership and usage.

Electric

- Working with the City Council and the MLEI programme (Mobilising Local Energy Investment) to look at the deployment of electric vehicle chargers
- Investigating the interplay between electric vehicles and the grid and how they can support smart grids.

6.50 Though this initiative is led from Cambridge is will be rolled out across the Combined Authority and will complement other future mobility work which taking place in Peterborough and Cambridgeshire including Peterborough's designation as a Smart City.

*The role of Central Government*

6.51 While organisations within the Combined Authority area are at the vanguard of developing and testing new transport technologies, there are areas in which government guidance is required to ensure that the implementation of new technology is undertaken on a consistent basis. Central government support required includes:

- development of strategy and policy and which will govern the prioritisation and implementation of future mobility;
- articulation of countrywide standards of consistency and interoperability;
- guidance on how the operation of autonomous vehicles will be regulated;
- provision of seed funding for infrastructure costs; and
- engagement with transport operators to encourage the sharing of data which supports integration and innovation within the market.

**Policy Summary**

6.52 In short, the policies to guide the Combined Authority's approach to new transport technologies are:

- promote and support work undertaken by Smart Cambridge, and its role-out across the Combined Authority area;
- provide the infrastructure which will enable the uptake and optimisation of new transport technologies; and
- guiding the development of a regulatory framework under which new transport technology providers operate.

*Policy 6.4.1: Promote and support research, innovation and engagement work undertaken by Smart Cambridge*

6.53 The Combined Authority will support the work of Smart Cambridge:

- facilitating trials of new transport technologies;
- promote the integration of data sources and availability of open data in the transport sector;
- engaging with providers of new transport technology other enabling technology; and
- identify an approach to a common application of the Smart Cambridge programme to the Combined Authority area.

*Policy 6.4.2: Provide the infrastructure which will enable the uptake and optimisation of new transport and digital connectivity technologies*

6.54 The Combined Authority will support Local Highway and Planning Authority partners to:

- provide the necessary parking and charging infrastructure to support electric vehicle use on a wide scale;
- monitor use of electric car charging infrastructure to ensure that any imbalance in supply and demand can be quickly corrected;
- use technology and innovation to better measure and monitor traffic movements to inform transport planning and prioritise location, scale and type of intervention or policy measures to address congestion;
- access Central Government grants, for example, from the Department for Transport or Innovate UK[62], to advance the development of new transport technologies in the region; and
- include provision of fibre ducting (for enhanced digital connectivity) as part of all scheme designs and, where possible, include deployment of ducting as part of scheme delivery.

*Policy 6.4.3: Guiding the development of a regulatory framework under which new transport technology providers operate*

6.55 The Combined Authority will support Local Highway and Planning Authority partners to:

- engage with Central Government to advocate for a consistent set of regulations across the country under which new transport technology providers will operate; and
- ensure new national and local regulatory frameworks:
  - enable the testing and roll-out of new transport technology;
  - encourage new transport technology providers to operate in the area;
  - ensure transport technology providers operate in the public interest and the operations do not erode civil liberties and employment rights; and
  - promote the distribution of the benefits of new transport technology beyond the communities which are already well served by the transport network, improving the connectivity of rural or less well-connected urban communities.

[62] See: **Innovate UK**

# 7 Promote healthy and active lifestyles

## Provide 'healthy streets' and high-quality public realm that puts people first and promotes active lifestyles

**Overview**

7.1 There is a risk, when aiming to improve a transport network, that 'connectivity' is prioritised over preserving the quality of places which lie along the network. Doing so risks turning streets into conduits down which cars and lorries are channelled and dividing otherwise unified areas with obstructive infrastructure such as railway lines or motorway bridges. This Local Transport Plan will improve connectivity across Cambridgeshire and Peterborough, but it will not do so by sacrificing the quality of the 'public realm'. We want our streets to be spaces that people can enjoy as places in their own right, not simply a mechanism for getting from A to B. Sustainable, 'active' transport modes will both encourage, and be encouraged by, improvements in the public realm. Both walking and cycling are conducive to the types of streetscape we envisage for Cambridgeshire and Peterborough; one characterised by green space and clean air, one which provides opportunity for people to relax without uncomfortable road noise and/or undue concern about road traffic safety.

7.2 Cambridgeshire and Peterborough are already renowned for their high standards when it comes to providing infrastructure and promoting walking and cycling. This success has come through consistent investment, appropriate infrastructure, promotion, and favourable 'baseline' conditions – unsurprisingly cycling is much more popular in flat areas. We will continue to build upon this success and use it to continue improving the public realm. Our thinking will be guided by consideration of 'place' and 'movement' function, helping us to understand and categorise the relative importance of streets in terms of their 'public realm' and 'connectivity'. Overall, we will:

- ensure that appropriate infrastructure (such as segregated walking and cycling space and 'filtered permeability') is put in place, to make walking and cycling accessible, enjoyable, and safer;
- drive mode shift through education, information provision, and motivational interviews; and
- aim to understand the 'place' and 'movement' function which each location along the transport network fulfils, ensuring that we can deliver both connectivity and protect the public realm.

7.3 Achieving these objectives will guarantee that the developments proposed for the transport network outlined in this Local Transport Plan do not come at the cost of the public realm, but in fact enhance it, making it a more enjoyable and healthier space for residents to spend time. Doing so will have a fundamental impact upon the quality of life which residents across the Combined Authority enjoy.

## Policy theme 7.1: Public rights of way and waterways

**Overview**

7.4 Rights of Way, including footpaths, bridleways and byways, are a key part of the transport system and the green infrastructure of our communities in Cambridgeshire and Peterborough. These routes are complemented by towpaths (often 'permissive paths') and the waterways they run alongside.

7.5 This infrastructure, both in rural areas and urban environments provide opportunity for walking, cycling, equestrian and boat trips, which support healthy and active lifestyles as well as providing important links for those making trips on foot or by bike for utility purposes. Waterways, including non-navigable watercourses, and Public Rights of way can also provide opportunities for leisure activities and supporting the local visitor and tourist economy.

*Local Impacts*

7.6 'Green' and 'Blue' Infrastructure is the network of natural and man-made features such as open spaces, woodlands, meadows, footpaths, rivers and canals, and historic parks which help to define and to link the communities, villages, towns and cities of Cambridgeshire with each other and to the surrounding landscape[63]. It is vital to quality of life for both existing and future residents of Cambridgeshire and Peterborough. It is nationally acknowledged as an important element of well-designed and inclusive places. All Rights of way and waterways (and their towpaths) form part of this green and blue infrastructure.

7.7 Cambridgeshire County Council and Peterborough City Council are responsible for managing and maintaining the Rights of Way network in their Local Highway Authority area. As Local Highway Authorities, they are responsible for the production of Rights of Way Improvement Plans outlining their approach to managing, maintaining and developing the network, under the Countryside and Rights of Way Act (2000), renewed on at least a 10-year basis. Cambridgeshire County Council and Peterborough City Council aim to improve and promote the Public Rights of way network as an integral part of a wider transport system, which meets the needs of the whole community for safe, sustainable local transport. This in turn supports improvements to public health, enhances biodiversity, increases recreational opportunities, and can contribute to both urban regeneration and strengthening the rural economy.

*7.8* The Inland Waterways Association cares for, promotes restoration of, and safeguards the use of the navigable waterways in Cambridgeshire and Peterborough[64].

[63] Source: **Cambridgeshire Green Infrastructure Strategy** (Cambridgeshire County Council, 2017)

[64] Source: **Inland Waterways Map** (Inland Waterways Association, 2013)

*Local Priorities*

7.9 The Cambridgeshire Rights of Way Improvement Plan[65] considers surface improvements, making more Rights of way information available online, securing Rights of way improvements as part of major transport schemes (e.g. the A14 scheme), working to remove barriers, maintain paths, undertake verge clearance, and clearing debris. The plan places more focus on working with other stakeholders such as Cambridgeshire and Peterborough Health and Wellbeing Boards on encouraging healthy lifestyles and with the Local Access Forum and town and parish councils in delivering improvements to countryside access. The plan also seeks to support the encouragement of sustainable transport modes and help to mitigate the effects of climate change.

7.10 In Peterborough, the Rights of Way Improvement Plan[66] was developed in consultation with key stakeholders and aims to reduce the number of unnecessary physical barriers to the network, improve means of way marking to help users and landowners, promote the countryside around Peterborough to residents and visitors, develop functional and well-maintained routes into the countryside and to nearby settlements for local use and help people wishing to improve or maintain their health by maintaining a range of circular off-road routes.

7.11 Enhancing waterways and their towpaths is also key to developing the role of 'Blue' and 'Green' Infrastructure as a major economic and tourism resource, particularly in areas where deprivation and/or limited economic diversity is an issue. Improving the waterways can also help water supply, flood defences, provision of water for abstraction as well as pollution removal and dilution – these ecosystem services have an associated value in economic terms. Care must be taken to ensure that improvements do not compromise flood and water management.

**Policy Summary**

7.12 The policies to support Public Rights of Way and waterways in Cambridgeshire and Peterborough aim to maintain and enhance the network of routes available in a consistent manner across Cambridgeshire and Peterborough.

- align policies for Public Rights of Way across Cambridgeshire and Peterborough;
- improve access to the green spaces for all;
- develop a network which is safe and encourages healthy activities;
- ensure new development is integrated into the Public Rights of Way network without damaging the countryside;
- ensure high quality, definitive information, maps and records are available on the network;
- ensure the network is complete to meet the needs of todays' users and land managers; and
- support better land and waterway management.

[65] Source: **Cambridgeshire Rights of Way Improvement Plan Updated** (Cambridgeshire County Council, 2016)

[66] Source: **Peterborough Rights of Way Improvement Plan Updated** (Peterborough City Council, 2016)

*Policy 7.1.1: Align policies for Public Rights of Way across Cambridgeshire and Peterborough*

7.13 The Combined Authority supports the adoption of aligned policy between Cambridgeshire County Council and Peterborough City Council which are responsible for Public Rights of Way. The Combined Authority will work with the two Local Highway Authorities to develop a joint Rights of Way Improvement Plan as a document to be adopted under the Local Transport Plan.

*Policy 7.1.2: Improve access to the green spaces for all*

7.14 Green space access provision should be physically accessible to the widest possible range of people. Management and improvement of the existing Rights of Way network should aim to increase that accessibility, while new access provision should generally be planned to avoid imposing restrictions. Where an existing path may not be fully accessible to those with limited mobility due to limits imposed by external constraints, such route limitations should be effectively communicated to users.

*Policy 7.1.3: Develop a network which is safe and encourages healthy activities*

7.15 Countryside access provision should be safe for users and encourage healthy activities. Where significant potential conflict with motor traffic or railways can be demonstrated, then measures to reduce risk will be considered, and where Rights of Way are suspended due to the closure of such infrastructure, alternatives should be provided.

7.16 Where Rights of Way are subsumed within urban development, then planners will be encouraged to ensure that path design is open and unthreatening and suitable for regular exercise. Safety-critical path infrastructure will be regularly inspected.

*Policy 7.1.4: Ensure new development is integrated into the Public Rights of Way network without damaging the countryside*

7.17 New development should not damage Rights of Way provision, either directly or indirectly. New settlements should be integrated into the Rights of Way network, and improved provision made for the increased population. Where appropriate, development should contribute to the provision of new links and/or improvement of the existing Rights of Way network.

*Policy 7.1.5: Ensure high quality, definitive information, maps and records are available on the network*

7.18 Information on the Rights of Way network, towpaths, and waterway needs to be accurate, comprehensive and up-to-date and should be available to all users of the network(s). It should be able to be informed by the local community, using digital technology such as Open StreetMap. Proposals for legal changes to the network should be resolved subject to availability of resources.

*Policy 7.1.6: Ensure the network is complete to meet the needs of today's users and land managers*

7.19 Rights of Way provision should build on the platform of the historical network to meet the needs of today's users and land managers.

*Policy 7.1.7: Support better land and waterway management*

7.20 Management and improvement of access to green spaces, waterways, and rights of way should consider the needs of land management, flood prevention, conservation, heritage and concern about rural crime. We will also aim to improve our waterways, to ensure they are attractive and support regular use for healthy, leisure activities on adjacent paths. Partnership working will look to facilitate these wider improvements as part of programme planning.

## Policy theme 7.2: Promote and raise awareness of sustainable transport options

**Overview**

7.21 Provision of sustainable transport infrastructure and services, in the form of high-quality walking, cycling, public transport and new mobility options only go so far to support sustainable travel patterns. Programmes and initiatives are also necessary to provide information to potential users and raise awareness of new and existing sustainable transport options, challenge entrenched unsustainable behaviours, and empower people to make a change where knowledge or skills are key barriers.

7.22 These programmes and initiatives, or 'Smarter Choices', encourage 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 greater levels of physical activity by using active travel modes. Encouraging active and other lower emission modes such as public transport can also improve health by supporting improved air quality. In addition, Smarter Choices initiatives assist in tackling climate change through encouraging use of low carbon transport options, help people to save money by using less costly means of travel, and enhance social inclusion.

7.23 National policy relating to sustainable transport was set out in the 2011 White Paper "Creating Growth, Cutting Carbon"[67] and focusses on the economic, health, carbon reduction and accessibility benefits of sustainable transport. It also highlights the 'nudge' concept, exemplified by packages of travel planning initiatives (plans which outline how sustainable travel options will be promoted or provided to certain residential locations or destinations such as workplaces), and emphasises the need for decentralisation and local decision making in relation to sustainable travel to ensure that transport best meets local needs.

*Local Impacts*

7.24 Peterborough City Council and Cambridgeshire County Council and partners have delivered awareness raising and behavioural interventions relating to transport over a number of years. Peterborough was one of the original Sustainable Travel Demonstration towns, and through its 'Travelchoice' programme achieved a nine percent reduction in car journeys. It has continued to deliver a range of initiatives on an annual basis and has a dedicated website promoting its activities (**www.travelchoice.org.uk**). Cambridgeshire County Council also delivered a range of projects via the Local Sustainable Transport Fund. Travel for Cambridgeshire (www.travelcambs.org.uk) has worked with businesses, education establishments and residential developments to deliver a range of behaviour change activities, much of which are focussed on influencing commuting journeys and supporting travel planning in organisations.

[67] Source: **Creating Growth, Cutting Carbon – Making Sustainable Local Transport Happen** (Department for Transport, 2011)

*Local Priorities*

7.25 A good travel planning initiative, or 'Travel Plan', provides an organisation or development with a clear strategy for minimising single occupancy travel to a site, and aims to maximise use of sustainable modes. A Travel Plan should be tailored to the needs of the site it is developed for. To ensure this, site assessments, surveys and consultation are used to inform what will be included in the plan as well as ongoing and continuous implementation of initiatives and measures as well as constant monitoring.

7.26 Travel for Cambridgeshire provides support in the form of advice, initiatives (such as discounts on rail season tickets, cycle shop discounts) and an awards programme for Cambridgeshire and Peterborough. Peterborough has also developed a travel plan toolkit for businesses and schools that highlights the range of initiatives that organisations can undertake, ranging from cycle training to infrastructure improvements.

7.27 A survey of Workplace Travel Plans across the country has shown them to be effective, supporting an average 15 percent reduction a year in the proportion of commuter journeys being made as a car driver.[68]

7.28 A range of digital tools are available in Cambridgeshire and Peterborough to support individuals to make sustainable travel choices. These tools include walkit.com, which provides information on walking routes and the associated benefits, Camshare which supports those looking to ride share and Motion Map journey planner.

**Policy Summary**

7.29 The policies to support raising awareness of sustainable transport options aim to:

- unlock national funding where available to supporting walking and cycling on behalf of Local Highway Authorities;
- support travel plan development and implementation of travel plan measures within workplaces to ensure healthy, safe, low carbon travel options for commuters are actively encouraged and supported;
- encourage the development, adoption and enforcement of local guidance for travel planning for new planning applications which emphasises the role of developers in committing to travel planning and sustainable travel initiatives;
- promote existing and new walking and cycling routes to commuters and residents
- promote cycle training for adults; and
- improve availability, type and quality of information on sustainable modes ensuring health and air quality benefits are emphasised.

[68] Source: **Making Travel Plans Work – Lessons from UK Case Studies** (Department for Transport, 2002)

*Policy 7.2.1: Support travel plan development and implementation of travel plan measures within workplaces to ensure healthy, safe, low carbon travel options for commuters are actively encouraged and supported*

7.30 The Combined Authority will work with its Local Highway and Planning Authority partners to:

- provide a regional travel plan support offer, which provides assistance to organisations developing and implementing travel plans;
- provide guidance on using data to customise workplace transport offers, for example through platforms that enable journey planning, provide mode or journey-specific discounts, or incentivise sustainable travel through challenges/competitions;
- support car sharing for commuting journeys through the promotion of CamShare type schemes at local employment sites;
- support development of a Bike Loan and Bike Higher schemes; and
- prioritise work with health service partners and other key generators of travel demand on travel planning initiatives.

*Policy 7.2.2: Ensure the adoption and enforcement of local travel plan guidance, for new planning applications*

7.31 The Combined Authority will work with its Local Highway and Planning Authority partners to:

- update and promote evidence-based Travel Plan guidance developed by the Travel for Cambridgeshire and Travel Choice, for travel plan development; and
- negotiate with developers to ensure provision of the very latest and best sustainable and environmentally friendly infrastructure as part of new developments and ensure this infrastructure is prioritised at an early stage in the development and supports the Non-Statutory Spatial Framework.

*Policy 7.2.3: Promote existing and new walking and cycling routes to commuters and residents*

7.32 The Combined Authority working with its Local Highway and Planning Authority partners will:

- promote WalkIt.com and expand coverage to key market towns to promote walking routes;
- promote Cycle Streets journey planner to promote cycle routes; and
- promote Travel for Cambridgeshire's support available in terms of walking and cycling promotion to organisations and residential developments.

*Policy 7.2.4: Continue to promote cycle training in schools and for adults*

7.33 The Combined Authority working with its Local Highway and Planning Authority partners will:

- continue to promote and support the programmes such as Bikeability, BikeIt and Modeshift Stars programme within schools for young people;[69]
- promote cycle training to support urban cycling for adults; and
- promote cycling via marketing campaigns showing cycling as a realistic mode of travel for all sections of the community – not just for enthusiasts, as well as a marketing campaign tackling the perceptions and barriers.

[69] See: **Bikeability website**

*Policy 7.2.5: Improve availability, type and quality of information on sustainable modes ensuring health and air quality benefits are emphasised*

7.34 The Combined Authority working with its Local Highway and Planning Authority partners will:

- encourage sustainable travel by residents of Peterborough and Cambridgeshire through media, such as social media, the Travelchoice Website, radio, local magazines, display boards in public areas and staffed stalls at local fairs;
- provide opportunities for driver training;
- promote and support the expansion of car clubs (including electric car club vehicles);
- promote targeted Personal Travel Planning to commuters and residents as part of planning applications; and
- explore technological improvements to provide an integrated journey planning solution that covers all modes including car clubs, ride sharing and other innovative transport options as they become available.

## Policy theme 7.3: Supporting and promoting health and wellbeing

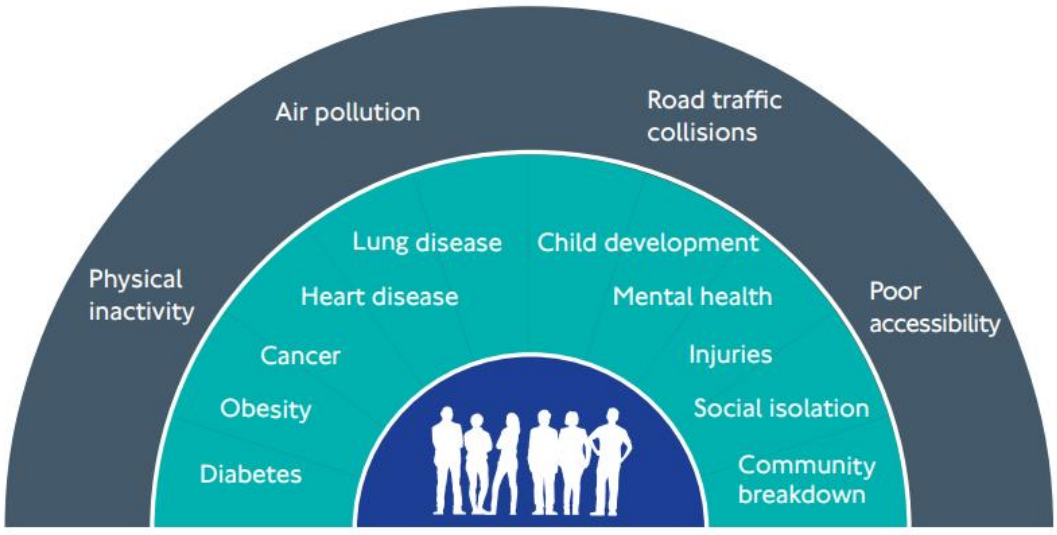
**Overview**

7.35 Transport plays a vital role in supporting health and wellbeing. It enables people to access jobs, education, shops, recreation, health and social services as well as travel to see friends and family. All of these are essential for a healthy, fulfilling life. The biggest role of transport in health is a positive one; it is the main way that people stay active. This is vital as everyone needs to be physically active every day to prevent a wide range of illnesses including heart disease, stroke, depression, type 2 diabetes and some cancers. Key areas where transport interventions can support health and wellbeing improvements are:

- through physical activity, in particular the provision of high-quality infrastructure and behaviour change interventions to encourage increased levels of walking and cycling;
- through improvements to local air quality as a consequence of increased walking and cycling, and use of other lower and zero emission modes;
- through providing well designed transport infrastructure such as junctions and segregated cycle ways that reduce conflicts between different road users, improve road safety and reduce the number and severity of injuries; and
- through consideration of how key services and opportunities (including health, education and leisure opportunities) can be made accessible to all, supporting equality and reducing social isolation.

7.36 These topics are discussed in the following sections and summarised in Figure 7.1, below.

**Figure 7.1: Linkages between health, wellbeing and transport**




Source: Creating healthy thriving communities: priorities for the Cambridgeshire and Peterborough Local Transport Plan

*Physical inactivity - Infrastructure, education, training and promotion*

7.37 Physical inactivity is the fourth leading risk factor for death worldwide and contributes to an increased risk of diabetes, cardiovascular disease and cancer. World Health Organisation (WHO) figures show that physical inactivity accounts for an estimated 9% of premature mortality[70].

7.38 Low levels of physical activity are of concern in the UK. It has been highlighted that 12.5 million people in England failed to achieve 30 minutes of moderate intensity physical activity per week within a 28-day period during 2013 and one in four of the adult population is classed as physically inactive, falling into the Chief Medical Officer's (CMO) 'high risk' health category[71].

7.39 Evidence shows that the most significant health benefits are gained from those who are inactive starting to do even small amounts of physical activity. Increasing levels of walking and cycling are ways to achieve this small change[72].

7.40 The National Institute for Clinical Excellence (NICE) provides Public Health guidance aimed at preventing disease and improving the health of the population. The Walking and Cycling Briefing[73] summarises NICE's recommendations for Local Highway Authorities and partner organisations on walking and cycling. Actions relate to infrastructure provision, addressing safety issues, ensuring other linked policies support walking and cycling, provision of practical support and information and using local data, communication and evaluation to develop programmes.

7.41 The guidance emphasises the importance of the needs of particular populations such as those with physical disabilities, frail older people and parents or carers with small children, as well as the importance of encouraging walking and cycling to school.

7.42 In addition to the NICE guidance, the DfT released the Cycling and Walking Investment Strategy[74] which sets out the Government's ambitions to make walking and cycling the natural choices for shorter journeys, or as part of longer journeys. By 2025 there is an objective to increase walking activity to 300 stages per person per year and increasing the percentage of children aged 5 to 10 that usually walk to school from the 2014 level of 49% to 55%. For cycling there is an aim to double cycling by 2025, where cycling activity is measured as the estimated total number of cycle stages made each year, from 800 million journeys in 2013 to 1.6 billion journeys in 2025.

[70] Source: **Global Health Risks – Mortality and burden disease attributable to selected major risks** (World Health Organisation, 2009)

[71] Source: **Turning the tide of inactivity** (UKActive, 2014)

[72] Source: **Active Transport Key Findings** (Cambridgeshire Transport and Health JSNA, 2015)

[73] Source: **Physical Activity: Walking and Cycling –** PH41 (NICE, 2012)

[74] Source: **Cycling and Walking Investment Strategy** (DfT, 2017)

7.43 Public Health England (PHE) has developed a national framework for the Workplace Wellbeing Charter, a locally delivered award system to encourage employers to create a health enhancing workplace. Ways in which employers can promote staff physical activity include supporting walking and cycling activities such as National Bike Week and National Walking Month[75].

7.44 In addition to the NICE guidance, the DfT released the Cycling and Walking Investment Strategy[76] which sets out the Government's ambitions to make walking and cycling the natural choices for shorter journeys, or as part of longer journeys. By 2025 there is an objective to increase walking activity to 300 stages per person per year and increasing the percentage of children aged 5 to 10 that usually walk to school from the 2014 level of 49% to 55%. For cycling there is an aim to double cycling by 2025, where cycling activity is measured as the estimated total number of cycle stages made each year, from 800 million journeys in 2013 to 1.6 billion journeys in 2025.

7.45 The DfT has funded the Bikeability programme across England, predominantly aimed at Year 6 primary school age children, to deliver a national standard in cycle training. Over 2 million children have been trained since the scheme began in 2007[77].

7.46 A range of behaviour change interventions were delivered through the Local Sustainable Transport Fund between 2011 and 2015, and subsequent investment programmes. Many of these have focussed on supporting increase in walking and cycling including over 14,900 participants in cycle rides and walking events in Peterborough[78].

*Air Pollution*

7.47 As detailed in policy theme 8.1 (Improving air quality), transport accounts for a higher overall share of gases and particulate matter emissions deemed harmful to human health than any other sector of the economy. This must change if the harmful effects of air pollution on our health is to be mitigated. Specific transport-focused initiatives which address air pollution include providing funding to accelerate the uptake of low emission buses (including retrofitting), supporting low emission zones, promoting uptake of low and ultra-low emission private vehicles, supporting industry to reduce emissions from Heavy Commercial Vehicles (HCVs), and the Automated and Electric Vehicles Act[79], which will facilitate improvements in electric charge-point availability and standards across the country. Switching short local car trips to walking and cycling will further support emissions reduction.

[75] Source: **Workplace Wellbeing Charter** (Health@Work, 2018)

[76] Source: **Cycling and Walking Investment Strategy** (Department for Transport, 2017)

[77] Source: *ibid.*

[78] Source: *ibid.*

[79] Source: **The Automated and Electric Vehicles Act 2018** (UK legislation, 2018)

*Road Traffic Collisions*

7.48 As detailed in policy theme 5.1 (Safety for all – a safe systems approach), the Combined Authority has a vision to prevent all road deaths across Cambridgeshire and Peterborough and to significantly reduce the severity of injuries and subsequent costs and social impacts from road traffic collisions. To achieve this vision, the Cambridgeshire and Peterborough Road Safety Partnership have adopted a Safe System Approach to road safety management, based on the principle that our life and health should not be compromised by our need to travel.

*Accessibility*

7.49 Accessibility can have an impact on health and wellbeing in two key ways:

- Access to health care and leisure facilities/amenities allows treatment of conditions by health professionals and participation in physical activities of all type, which can pre-emptively combat the impacts of sedentary lifestyles.
- Access to wider opportunities such as employment and social activities have a health and wellbeing impact, particularly in terms of supporting good mental health.

7.50 These are addressed in greater detail in policy theme 6.1 (Transport accessibility for all) and policy theme 6.3 (Access to education and key services).

7.51 There is strong evidence of clearly identifiable concentrations of poor health and well-being in nearly every part of the Combined Authority area. Key areas of concern relate to obesity and physical activity. Almost two-thirds of Cambridgeshire and Peterborough adults carry excess weight, with higher levels in East Cambridgeshire and Fenland than found nationally. Levels of activity in Peterborough are worse than the national rate[80].

*Local Priorities*

7.52 Healthy, thriving and prosperous communities are one of the Combined Authority's five ambitions. Health and wellbeing are explicit within the ambitions and links directly to transport through promotion of active travel, implementation of walking and cycling strategies and ensuring high quality public realm in our towns and cities. Target outcomes for 2030 include residents that are healthy, active and connected and live in good health for longer. Where needed they access health care, social care and other public services which support their independence and choice. The role that improved air quality can play in supporting improved public health outcomes is also highlighted.

7.53 Within Cambridgeshire there is a local priority to promote active travel, health and wellbeing through walking and cycling strategies and making use of the high-quality public realm within Cambridgeshire's cities and towns. Target deliverables for 2021/22 include improved public health outcomes delivered through clean air, cycle routes, long distance footpaths and green infrastructure.

7.54 In 2004, Peterborough was chosen by the Department for Transport to be one of three sustainable travel demonstration towns. Named locally as Travelchoice, it has been delivering a range of sustainable travel programmes for fifteen years. Peterborough's previous Local Transport Plan highlights health related problems due to inactivity and the role that improving

[80] Source: **Cambridgeshire and Peterborough Independent Economic Review** (Cambridgeshire & Peterborough Independent Economic Commission, CPIEC, 2018)

walking and cycling opportunities can play in addressing this. It has a vision of increasing walking and cycling trips throughout the Local highway Authority area.[81]

7.55 Local Cycling and Walking Implementation Plans are currently in development for Peterborough and Cambridgeshire. These will provide evidence for prioritised investment in walking and cycling infrastructure.

**Policy Summary**

7.56 The policies to promote healthy lifestyles in the region aim to increase the amount of physical activity undertaken, reduce air pollution, improve the public and urban realm, and increase access to healthcare, leisure, employment and social activities. The policies are:

- reducing physical inactivity through active travel infrastructure, education, training and promotion
- reducing air pollution through supporting zero and low emissions transport options and developing green infrastructure
- improving street scene / public realm to improve safety;
- increasing ability to access to wider opportunities - employment, social activities; and
- increasing ability to access health care and leisure facilities / amenities.

*Policy 7.3.1: Reducing physical inactivity through active travel infrastructure, education, training and promotion*

7.57 The Combined Authority, Local Highways Authorities and Directorates of Public Health will:

- ensure our walking and cycling infrastructure interventions are evidence based, through the Local Cycling and Walking Implementation Plan process;
- ensure our network of paths for walking and cycling are comprehensive, connecting residential areas to key sites of employment, education, leisure and open space and are safe and attractive for all users;
- ensure walking and cycling are given the highest priority when developing streets and roads;
- promote public transport and ensure 'first mile' and 'last mile' connectivity to the public transport network supports walking and cycling;
- involve local communities and key experts in developing interventions to ensure potential for physical activity is maximised and outcomes are evaluated; and
- promote and encourage healthy and active lifestyles amongst all demographics of the Combined Authority's population.

*Policy 7.3.2: Reducing air pollution through supporting zero and low emissions transport options and developing green infrastructure*

7.58 The Combined Authority, Local Highways Authorities and Directorates of Public Health will support zero and low emission transport, particularly those focussed on zero emission vehicles, developing active travel infrastructure and encouraging use of sustainable travel options.

[81] Source: **Long Term Transport Strategy (2011-2026) and Local Transport Plan (2016-2021)** (Peterborough City Council, 2016)

*Policy 7.3.3: Improving street scene / public realm to improve safety*

7.59 The Combined Authority, Local Highways Authorities and Directorates of Public Health will support a safe systems approach, transport security and enhancing our built and historic environment.

*Policy 7.3.4: Increasing ability to access health and social care, and leisure facilities / amenities*

7.60 The Combined Authority, Local Highways Authorities and Directorates of Public Health will support access to key health, social care and leisure services and amenities both physically and digitally.

*Policy 7.3.5: Increasing ability to access to wider opportunities - employment, social activities*

7.61 The Combined Authority, Local Highways Authorities and Directorates of Public Health will support the objective of creating a transport network that is safe, affordable and accessible for all.

# 8 Improve air quality

## Ensure transport initiatives improve air quality across the region to exceed good practice standards

**Overview**

8.1 In general Cambridgeshire and Peterborough has a high standard of air quality across the region, a result of its largely rural setting. However, there remain 11 AQMAs (Air Quality Management Areas – areas where it is expected that air quality will not meet national air quality objectives), across the area. Poor air quality has a serious detrimental impact upon public health, and we therefore see the removal of these AQMAs as highly important. However, we want to go further, not simply meeting the national standard for air quality, but exceeding it.

8.2 Transport will have a critical role to play in achieving this aim. For example, road transport is the largest source of Nitrous Oxide, a highly harmful gas, in the UK. Nationally, 51% of Nitrous Oxide emissions are as a result of transport. There are a whole swathe of other damaging emissions, such as Particulate Matter and Sulphur Dioxide, produced by transport. The impact of transport upon air quality can be seen geographically within the Combined Authority area – one of the largest AQMAs in Cambridgeshire and Peterborough centres around the junction of the A14 and M11.

8.3 The majority of damaging emissions from transport come from road transport. To improve air quality we must therefore minimise the usage of roads, and make this usage more efficient where possible. Encouraging mode-shift from the private car to other, sustainable modes such as walking and cycling will be critical here, as will 'greening' through alternative fuel sources (excluding biofuels), and encouraging wider use of, public transport networks. Freight movements produce particularly high levels of emissions due to the size of vehicles and their usage of diesel engines. Where possible freight journeys must be made as efficient as possible, and we will encourage new options for green freight movement such as bicycle freight transport in urban areas, and 'platooning' of freight on motorways. Overall, we will;

- encourage mode-shift from the private car to more efficient and 'green' transport modes such as walking, cycling and public transport;
- 'green' public transport modes such as buses and trains by examining alternative fuels such as electricity and hydrogen;
- strengthen the electric grid to ensure that the roll-out of electric vehicles is not inhibited by electricity shortages;
- encourage more efficient freight movement across the Combined Authority area; and
- minimise the need to travel wherever possible.

8.4 These interventions will have a marked, positive impact upon air quality within the Combined Authority area, one which should be noted by residents. In the long run this should have a significant, positive impact upon public health, and make Cambridgeshire and Peterborough a healthier place to live.

## Policy theme 8.1: Improving air quality

*Air pollution*

8.5 Poor air quality is the largest environmental risk to public health in the UK[82]. It is recognised as a contributing factor in the onset of heart disease and cancer, and is known to have more severe effects on vulnerable groups, including the elderly, children, and people already suffering from pre-existing health conditions such as respiratory and cardiovascular conditions. There is also often a strong correlation with equalities issues, because areas with poor air quality tend also to be less affluent[83]. In turn, air pollution has social and economic costs. Individuals taking time off work due to air pollution-related health problems costs time and money through lost productivity[84].

8.6 Transport accounts for a higher overall share of gases and particulate matter emissions deemed harmful to human health than any other sector of the economy. This must change if the harmful effects of air pollution on our health is to be mitigated. Central Government has recently published a number of strategic documents that set out their approach to ensuring clean economic growth[85], cutting exposure to air pollutants[86] (and reducing greenhouse gas emissions), including from transport[8788]. Specific transport-focused initiatives include providing funding to accelerate the uptake of low emission buses (including retrofitting), supporting low emission zones, promoting uptake of low and ultra-low emission private vehicles, supporting industry to reduce emissions from Heavy Commercial Vehicles (HCVs), and the Automated and Electric Vehicles Act[89], which will facilitate improvements in electric charge-point availability and standards across the country.

8.7 Under Part IV of the Environment Act 1995, all Local Planning Authorities have a duty to review air quality in their area, including an assessment of whether air quality standards and objectives are being achieved or likely to be achieved, measured against the National Air Quality strategy. Any part of an authority's area in which standards or objectives will not be met by a prescribed date must be designated an Air Quality Management Area (AQMA). The authority is then required to develop a local Air Quality Action Plan (AQAP) which sets out measures to reduce pollution levels.

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[82] Source: **Clean Air Strategy** (Department for Environment, Food & Rural Affairs, 2019)

[83] Source: **Who benefits from environmental policy? An environmental justice analysis of air quality change in Britain, 2001–2011** (Mitchell, G., Norman, P. & Mullin, K., 2015)

[84] Source: **Valuing the impacts of air quality on productivity** (Department for Environment, Food & Rural Affairs, 2015)

[85] Source: **The Clean Growth Strategy** (Department for Business, Energy and Industrial Strategy, 2017)

[86] Source: **Clean Air Strategy** (Department for Environment, Food & Rural Affairs, 2019)

[87] Source: **UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations** (Department for Transport, and Department for Environment, Food & Rural Affairs, 2017)

[88] Source: **The Road to Zero** (Department for Transport, 2018)

[89] Source: **The Automated and Electric Vehicles Act 2018** (HM's Government, 2018)

8.8 There are seven AQMAs in the Combined Authority area where the air quality problems are primarily due to emissions from vehicles on the road network, as shown in Table 8.1 below. The main pollutants of concern, associated with road traffic, are oxides of nitrogen (NOx) and particulate matter (PM) at locations close to busy, congested roads where people live, work or shop. AQAPs to address the air quality within the AQMAs have been developed by Cambridge City[90], Huntingdonshire, South Cambridgeshire District Councils and Cambridgeshire County Council[91].

**Table 8.1: Traffic-related Air Quality Management Areas in the Combined Authority area[92]**

| AQMA Area | Year Declared | Pollutants | Main Source |
|---|---|---|---|
| Cambridge City Centre | 2004 | $NO_2$ | Vehicles |
| Central Huntingdon | 2005 | $NO_2$ | Vehicles |
| High Street and New Street, St. Neots, Huntingdonshire | 2005 | $NO_2$ | Vehicles |
| Lynn Road, Wisbech | 2006 | $NO_2$ | Vehicles |
| Areas adjacent to A14 in Brampton, Huntingdonshire | 2006 | $NO_2$ | 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 |

*Challenges and opportunities within the Combined Authority area*

8.9 Whilst levels of air quality in a number of areas within the Combined Authority have been improving slowly, overall, there is a risk this trend will not continue and could deteriorate. The levels of economic and population growth forecast for the area will result in an increased demand for travel to, from and within the Combined Authority area. In addition, travel through the area, particularly road freight, contributes a disproportionate amount of polluting emissions in terms of vehicle numbers[93].

8.10 The Combined Authority has a responsibility to implement measures that ensure improvements to air quality can continue to be delivered alongside growth by creating conditions that will change travel behaviour and bring about the use of cleaner vehicles. Reductions in vehicle mileage by removing journeys altogether and moving remaining journeys to sustainable modes such as walking, cycling and public transport is important, but needs to be achieved alongside improvements to the transport infrastructure and vehicle fleet to enable sufficient uptake of lower emission transport modes.

8.11 The key areas identified for action within the AQAPs, and to be supported through the Local Transport Plan, include:

- reducing emissions from taxis, buses, coaches, and HCVs;
- maintaining low emissions through the planning process, and long-term planning; and
- improving public health.

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[90] Source: **Cambridge City Council Air Quality Action Plan 2018-2023** (Cambridge City Council, 2018)

[91] Source: **Joint Air Quality Action Plan for the Cambridgeshire Growth Areas** (Cambridgeshire County Council, 2015)

[92] Source: **Third Cambridgeshire Local Transport Plan (2011-2031)** (Cambridgeshire County Council, 2009)

[93] Source: *ibid.*

**Policy Summary**

8.12 The policies for improving air quality within the Combined Authority area are focused on harnessing improvements to vehicle technology and disincentivising travel by high polluting modes to reduce road traffic emissions. There are clear synergies with encouraging the use of sustainable and active modes, and these are covered in other policies.

*Policy 8.1.1: Reducing vehicle emissions*

8.13 In addition to policies specific to sustainable transport, for example policy theme 11 (Walking) and policy theme 12 (Cycling), the Combined Authority will work in partnership with the area's constituent local councils and, where appropriate, transport operators, to:

- investigate the potential for a Clean Air Zone in Cambridge city centre, including the feasibility of pricing mechanisms to encourage a reduction in usage of polluting private vehicles, coaches and heavy commercial vehicles;
- investigate the potential for a Green Travel Area in Cambridge city centre;
- develop licensing conditions that require taxis to be ultra-low or zero emission by a specific date;
- set minimum bus quality standards to be implemented through Enhanced Bus Partnerships (or similar) that specifically relate to air quality e.g. emission standards for vehicle fleets;
- support options for 'last mile' deliveries using electric car/taxi and/or bikes, and providing 'click and collect' hubs at Park & Ride sites;
- investigate the feasibility of providing unified freight consolidation centres; and
- incentivise cycle delivery for appropriate services.

8.14 The Combined Authority will also:

- support the area-wide delivery of residential, non-residential and taxi-only electric vehicle rapid charging infrastructure, including:
  - engaging with the appropriate Distribution Network Operator (DNO) on the capacity and resilience of the electricity network to support the desired level of rapid charging points; and
  - defining delivery timescales, standards and locations.

*Policy 8.1.2: Keeping emissions low in the future*

8.15 The Combined Authority will work in partnership with the constituent Local Highway and Planning Authorities to:

- maintain statutory duties under the Environment Act 1995, including:
  - monitoring air quality at key locations and developing and implementing effective Air Quality Action Plans to ensure agreed targets are met; and
  - developing 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;
- develop policies, through the Local Plan process, that require Health Impact Assessments (HIA) to be undertaken at the pre-application stage for major developments;
- develop new air quality/planning policies in the area's Air Quality Action Plans;
- require that promoters of transport schemes demonstrate assessment of air quality impacts through appropriate and robust techniques;
- procure low emission vehicles for Local Highway and Planning Authority fleets; and
- update Travel Plans e.g. schools, workplace, residential/new development to raise awareness of air quality, public health and measures that promote these aims.

*Policy 8.1.3: Improving public health*

8.16 The Combined Authority will work in partnership with the constituent Local Highway and Planning Authorities to:

- continue to provide input to Joint Strategic Needs Assessments (and any other strategies that come forward);
- provide public information campaigns about the health impacts of air pollution; and
- support proposals being developed by the Greater Cambridge Partnership (GCP) to promote more sustainable modes of transport and reduce the impact of private modes of transport.

# 9 Protect and enhance the environment

## Deliver a transport network that protects and enhances our natural, historic and built environments

**Overview**

9.1 The quality of the natural and built environment across Cambridge and Peterborough is exceptionally high, and internationally renowned. The area contains world-famous buildings such as Peterborough Cathedral, and was the birthplace of some of the most famous of historical figures such as Oliver Cromwell, and has more Grade 1 farmland than any other area of the country. However, the area also has one of the lowest proportions of land nationally under management for nature, and no National Parks. Protecting and enhancing our rich and varied cultural and environmental assets whilst allowing progress, growth and improvements to biodiversity, will be key to ensuring a high quality of life for Cambridgeshire and Peterborough residents in the coming decades.

9.2 However, without appropriate care, the implementation of new transport schemes could cause irreparable harm to these environments. These potential consequences vary widely in scope and severity; the dust from construction has the potential to pollute local waterways; the construction of new highways has the potential to damage otherwise world-famous views; encouraging unsustainable transport choices will lead to greater greenhouse gas emissions. In order to avoid this, the Combined Authority will:

- ensure that the appropriate steps are taken to mitigate the negative impacts construction can have on the surrounding environment;
- encourage the use of 'sustainable' infrastructure wherever possible;
- construct infrastructure of a high quality, minimising future upkeep requirements;
- design infrastructure which is adaptable and resilient to climate change, ensuring that it does not require expensive and environmentally damaging interventions to remain effective;
- maintain the cleanliness and quality of existing and future infrastructure; and
- engage with local developers to ensure that there is long-term, sustainable vision guiding their decision-making.

9.3 Economic growth and environmental protection and enhancement are sometimes considered to be in opposition, but this does not have to be the case. Well thought-out, integrated planning and development can and must ensure that natural and built environments are actually enhanced by the addition of new infrastructure and schemes. By providing accessibility to high-value cultural and environmental sites across the Combined Authority, better transport will make it easier for the public to access and enjoy them. Overall this will ensure that the Cambridgeshire and Peterborough area remains an attractive place to live, preserving its environmental and cultural history whilst allowing its development to continue, unhindered, into the future.

9.4 A Strategic Environmental Assessment (SEA) has been undertaken to assess the potential environmental impacts of the Plan. The SEA process and resulting Environmental Report establish the environmental baseline, identify key environmental issues and opportunities, and assess the Plan's policies and proposed schemes to identify any mitigation or enhancement measures. A monitoring framework is provided in the Environmental Report to assist with monitoring the effects of implementing the Plan. In addition, a Strategic Habitats Regulations Assessment has assessed each proposed policy within the Plan to determine whether they risk damaging protected environments or species. These reports are provided as annexes to this document.

## Policy theme 9.1: Protecting our natural environment

**Overview**

9.5 Protecting the natural environment is important at all geographical levels: local, national and international. *A Green Future: Our 25-year plan to improve the environment*[94] is the UK's national plan that sets out government action to help the natural world regain and retain good health. It aims to deliver cleaner air and water in our cities and rural landscapes, protect threatened species and provide richer wildlife habitats.

9.6 The plan focusses on the following areas:

- clean air;
- clean and plentiful water;
- thriving habitats, plants and wildlife;
- reducing the risk of harm from environmental hazards such as flooding and drought;
- using resources from nature more sustainably and efficiently;
- enhancing the beauty, heritage and engagement with the natural environment;
- managing pressure on the environment by mitigating and adapting to climate change;
- minimising waste;
- minimising noise/vibrations;
- managing exposure to chemicals and protected soils; and
- enhancing biosecurity.

9.7 Transport influences many of these issues and affects the natural environment, and people's experience of it, in three key areas[95]:

- biodiversity, landscape, geodiversity, water and soils – through direct and indirect impacts from land take and traffic;
- climate change and energy – through greenhouse gas emissions and the environmental challenges posed by biofuels; and
- quality of life – through people's access to and experience of the natural environment, and through links between walking, cycling, health and well-being.

This policy theme considers the first and third of these, with the second covered with our policy on reducing carbon emissions from transport (see policy theme 10.1 (Reducing the carbon emissions from travel)).

*Local Impacts*

9.8 The natural environment in the Cambridgeshire and Peterborough Combined Authority area is home to wetlands, woodlands, semi-natural grassland, agricultural land, freshwater sources (such as the River Great Ouse, River, Nene, and River Cam), and areas of high biodiversity, including parks, and hedgerows and verges.

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[94] Source: A Green Future: Our 25 Year Plan to Improve the Environment (DEFRA, 2018)

[95] Source: Natural England Guidance on Local Transport Plans and the Natural Environment (Natural England, 2009)

9.9 The natural ecosystems that make up the region are valuable assets. Although a relatively low proportion of land is under management for nature, there are nine National Nature Reserves in the area, such as Barnack Hills and Holes in Peterborough, which is one of Britain's most important wildlife sites and represents half of the surviving limestone in Cambridgeshire. There are also 12 Sites of Special Scientific Interest, which are conserved areas due to the presence of rare species or geological and physiological features, such as Adventurers' Land in Fenland and Barrington Chalk Pit in South Cambridgeshire. The region also contains the largest area of the highest quality (grade one) farmland in the country, making it highly important for the agricultural industry.

9.10 In Cambridgeshire and Peterborough, we have habitats containing almost 40% of the different species identified within the UK Biodiversity Action Plan. These species are those that have been identified as being the most threatened and requiring conservation action. Road building and other transport infrastructure and associated travel could result in loss or threat to of these habitats and species. However, new infrastructure can also contribute to increasing the amount of natural green corridors and connecting different natural assets.

9.11 These natural assets generate a wide range of amenity, including:

- provisioning amenity (e.g. crops, livestock feed, timber, water);
- regulating amenity (e.g. water quality, flood defence, carbon sequestration); and
- cultural amenity (e.g. recreational benefits, health and wellbeing benefits).

9.12 The value of the land can also be seen in its agricultural quality. Over 50% of the UK's Grade 1 agricultural land is found in the fens, along with significant quantities of grade 2 land in the south of the county.

9.13 In the Fens, water has an especially significant effect on the local economy and 78.5% of land is at a high probability of flooding. Much of the area is classified by the Environment Agency as being in Flood Zone 3, which is defined as being land having a 1 in 100 or greater annual probability of river flooding, or a 1 in 200 or greater annual probability of sea flooding. This presents challenges to local property and wider economic development. East Cambridgeshire and Peterborough are also at risk with 44.3% and 39%, respectively, of land at a high probability of flooding regularly.

*9.14* At the same time, there is risk of drought in Cambridgeshire and Peterborough – it receives some of the lowest levels of rainfall in the UK, while a growing population is increasing the demand for water.[96]

[96] Source: **Cambridgeshire and Peterborough Independent Economic Review** (Cambridgeshire & Peterborough Independent Economic Commission, CPIEC, 2018)

*Local Priorities*

9.15 Cambridgeshire County Council has a Green Infrastructure Strategy[97] and Peterborough City Council has a Biodiversity Strategy[98] and Environment Action Plan[99] which set out a range of objectives including to reverse the decline in biodiversity, mitigate and adapt to climate change, promote sustainable growth and economic development and support healthy living and wellbeing. We will work with local partners to ensure consistency of approach across Cambridgeshire and Peterborough with respect to 'green' infrastructure. Local authorities within the Combined Authority area such as Peterborough City Council also have a Green Infrastructure & Biodiversity Supplementary Planning Document (SPD)[100]. In Peterborough this is currently at draft stage and sets out a vision for how Peterborough's network of green infrastructure and associated biodiversity should be protected and enhanced during the next 20 years.

9.16 As well as considering interventions to tackle carbon emissions (see policy theme 10.1 (Reducing the carbon emissions from travel)) and air quality (see policy theme 8.1 (Improving air quality)) we will consider the wider impacts of our transport schemes on the environment, including biodiversity, landscape, geodiversity, water and soils through direct and indirect impacts of noise, land-take, visual intrusion, and emissions.

9.17 The construction of new transport infrastructure has the potential to damage the local natural environment. All transport initiatives in the Combined Authority area must be developed in line with the mitigation hierarchy (see Figure 9.1), which avoids, minimises, remediates and as a last resort compensates for adverse impacts on biodiversity. Negative operational impacts such as noise, vibration, dust and changes to drainage must be mitigated, and more sustainable options sought. The wider impacts of granting greater accessibility to 'sensitive' natural areas must be considered.

**Figure 9.1: The mitigation hierarchy**


Source: **Net gain – Consultation proposals** (DEFRA, December 2018)

[97] Source: **Cambridgeshire Green Infrastructure Strategy** (Cambridgeshire County Council, 2011)

[98] Source: **Peterborough City Council Biodiversity Strategy** (Peterborough City Council, 2018)

[99] Source: **Environment Action Plan** (Peterborough City Council, 2017)

[100] Source: **Peterborough's Green Infrastructure & Biodiversity Supplementary Planning Document** (Consultation Draft) (Peterborough City Council, 2018)

9.18 In addition, at the earliest stages of promoting housing and commercial development and planning and designing transport projects and interventions, we will embrace Central Government's principles of biodiversity net gain and, as principals are developed, environmental net gain.[101]

9.19 Flooding is also a key local environmental issue and reducing the likelihood of flooding and resilience and adaptivity to flooding is a priority. The amount of flat land in the region means that many areas are susceptible to flooding, an issue which new developments have the potential to exacerbate. Local Flood Risk Management Strategies and associated Supplementary Planning Documents exist for Cambridgeshire[102] and Peterborough.[103]

**Policy Summary**

9.20 The policies relating to the natural environment aim to protect and enhance the natural environment, allow mitigation and adaptation to climate change, improve access and integrate with public Rights of Way and support the delivery of green infrastructure such as green corridors (e.g. rivers and canals, road and rail corridors, cycling routes, pedestrian paths, rights of way, parks), amenity green space and natural and semi-natural urban green spaces[104]. This will deliver a range of benefits for the natural environment and local communities, including health and recreation, climate change adaptation, flood alleviation and water management, sustainable transport and biodiversity. Our policies are based on the framework set out by Natural England[105] which the Cambridgeshire and Peterborough Combined Authority support. Our policies are described in greater detail below:

*Policy 9.1.1: Protection and enhancement of the natural environment*

9.21 The Combined Authority will work with local partners to:

- build on the work developed by Local Nature Partnerships on the development of Environment and Green Infrastructure Plans, to develop a Cambridgeshire and Peterborough programme for its Local Highway Authorities;
- implement the correct and timely use of Strategic Environmental Assessments and Habitat Regulation Assessments;
- ensure that our programmes and solutions actively protect and enhance the natural environment including landscape, biodiversity, geodiversity, water and soils in all stages of planning and design work for transport projects and initiatives, transport services and operations, and highway and asset management and maintenance;
- implement integrated planning and travel demand management approaches, as well as increased use of sustainable transport modes instead of the private car;

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[101] Source: **A Green Future: Our 25 Year Plan to Improve the Environment** (DEFRA, 2018)

[102] Source: **Cambridgeshire's Local Flood Risk Management Strategy** (Cambridgeshire County Council, 2013)

[103] Source: **Peterborough Flood Risk Management Strategy** (Peterborough City Council, 2015)

[104] Source: **Natural England's Green Infrastructure Guidance** (Natural England, 2009)

[105] Source: **Natural England Guidance on Local Transport Plans and the Natural Environment** (Natural England, 2009)

- recommend that developers adhere to Local Planning Authority Green Infrastructure & Biodiversity Supplementary Development Plans (as well as full adherence to the policies of Local Plan and this Local Transport Plan);
- enforce developers' adherence to central government requirements for biodiversity net gain, and, in the longer-term, environmental net gain; and
- support delivery of flood risk management strategies and implementation of their associated Flood and Water Supplementary Development Plans.

*Policy 9.1.2: Improving sustainable access to the natural environment*

- We will provide sustainable access to the natural environment for local residents and visitors, in both urban and rural settings. More sustainable forms of access to the natural environment can deliver a range of benefits for people, communities, the environment and the economy, including improved air quality, reduced carbon emissions, and health and wellbeing benefits.
- We will seek input from key stakeholders such as the Local Nature Partnership and Local Access Forums, whose role it is to advise Local Highway and Planning Authorities on improving public access for open air recreation and enjoyment, in the development our schemes.

*Policy 9.1.3: Delivering green infrastructure*

- We will integrate the public Rights of Way network with the wider transport system, to provides a means of sustainable, active travel, particularly for short journeys, in both urban and rural areas. This will include training in the use of and promotion of open access data and associated mapping to assist in this integration.
- We will continue to develop our green infrastructure network of existing and new Rights of Way, quiet lanes, and greenways, and other green spaces and corridors. The connection of green spaces and green infrastructure will provide a cohesive non-motorised transport network, threading through our urban areas and their suburban fringes, linking homes to schools, places of employment, recreational areas and the countryside.

## Policy theme 9.2: Enhancing our built environments and protecting our historic environments

**Overview**

9.22 Our built environment across Cambridgeshire and Peterborough is cherished. It includes the physical structures and buildings of our cities, towns and villages; open spaces; and the route networks and connections between them.[106] As such, transport and public realm not only can affect our existing built environment, it forms an integral part of it. The built environment influences health, wellbeing and happiness of those who live and work within that location. Planning, design, management and maintenance of transport and public realm are important, influencing how the built environment supports quality of life. Ensuring an integrated approach to development of the built environment can be challenging with central and local government, private companies and residents, and passenger and user groups all having influence.[107]

9.23 The National Planning Policy Framework contains social and environmental priorities to "foster a well-designed, safe built environment with accessible services and open spaces which reflect current and future needs and support communities' health, social and cultural wellbeing". [108] Furthermore, there is a need to contribute to the protection and enhancement of the built environment including making effective use of land, minimise pollution, adapt to climate change and support a move to a low carbon economy. The built environment should be sympathetic to local character and history but not prevent or discourage innovation or change.

*Local Impacts*

9.24 The built environment in Cambridgeshire and Peterborough is characterised by a range of historic heritage assets in contrast with newer development. Major historic buildings include the two ancient cathedrals in Ely and Peterborough, where significant religious sites have existed since the 7th century. The University of Cambridge was founded in 1209, being granted a royal charter by King Henry III in 1231, making it the UK's second-oldest university.[109] More recently, developments such as the revitalisation of Cathedral Square in Peterborough have made considerable improvements to the public realm of our built environment.

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[106] Source: **New Housing Developments and the Built Environment** (JNSA, 2015/16)

[107] Source: **Select Committee on National Policy for the Built Environment Building better places** (House of Lords, 2016)

[108] Source: **National Planning Policy Framework** (Ministry of Housing, Communities and Local Government, 2018)

[109] Source: **Cambridgeshire and Peterborough Independent Economic Review** (Cambridgeshire & Peterborough Independent Economic Commission, CPIEC, 2018)

9.25 The Mayor's plan for housing growth across the Combined Authority area, including creation of Mayoral Development Corporations or similar rural vehicles[110], supports the findings of the Cambridgeshire and Peterborough Independent Economic Review (CPIER) that to optimise economic growth the local area will need to accommodate 6,000 to 8,000 homes a year over the next 20 years[111]. Associated demands on employment, education, health, retail, other amenities, utilities and civic and supporting transport infrastructure need to be considered, while ensuring that local heritage and quality and sense of place is retained. The impact of emerging new technologies also needs to be considered and planned for to ensure the future impacts of this are considered.

*Local Priorities*

9.26 The report New Housing Developments and the Built Environment[112] highlighted that within Cambridgeshire a range of local considerations directly related to the built environment including lack of consistency in relation to local policies to:

- improve health including green infrastructure provision;
- secure Community Infrastructure Levy and Section 106 funding from developers to support active travel infrastructure; and
- healthy ageing.

9.27 Existing strategic pedestrian routes will be improved, based on "Link and Place" principles[113]. Within these principles the roles of places, such as communal space, will be considered with the spectrum of their purpose: from pure conduit for efficient travel such as a minor pedestrianised link road, through to a destination it its own right such as a mixed-use public square. This approach will be used to develop high quality public spaces, that best meet required needs.

[110] Source: **Cambridgeshire & Peterborough Devolution Deal** (Cambridgeshire & Peterborough Combined Authority, 2017)

[111] Source: **Cambridgeshire and Peterborough Independent Economic Review** (Cambridgeshire & Peterborough Independent Economic Commission, CPIEC, 2018)

[112] Source: **New Housing Developments and the Built Environment** (JNSA, 2015/16)

[113] Source: **'Link' and 'Place': A New Approach to Street Planning and Design** (Jones, P. and Boujenko, N., 2007)

**Policy Summary**

9.28 The policies to support the built environment in the area aim to ensure that it is enhanced across the Combined Authority area.

*Policy 9.2.1: Support to enhance our built environment and protect our historic environment*

9.29 The Combined Authority will encourage Local Highway and Planning Authorities to:

- develop consistent local policy to ensure urban realm is developed to foster a well-designed, safe, accessible urban realm which reflects current and future needs and support communities' health, social and cultural wellbeing;
- secure funding, such as the Community Infrastructure Levy and Section 106, to ensure investment in high quality improvements to the built environment which deliver attractive, desirable and sustainable spaces;
- consider how transport changes can best contribute to the protection and enhancement of the built and historic environments including minimising pollution, adapting to climate change and supporting a move to a low carbon economy;
- develop the built environment in a way that is sympathetic to, and protective of, local character and history but also supports innovation and future mobility patterns;
- remove street clutter as part of development and maintenance schedules;
- consider how the existing built environment needs to be adapted for, and new development needs to consider, the needs of an aging population with respect to mobility;
- consider how the existing built environment needs to be adapted for, and new development needs to consider, the impacts of transport-related climate change; and
- consider the specific challenges relating to the built environment in market towns as identified in the Cambridgeshire and Peterborough Independent Economic Review including improvement to the built environment to support tourist activity[114].

[114] Source: **Cambridgeshire and Peterborough Independent Economic Review** (Cambridgeshire & Peterborough Independent Economic Commission, CPIEC, 2018)

# 10 Reduce emissions

## Reduce emissions to as close to zero as possible to minimise the impact of transport and travel on climate change

**Overview**

10.1 Climate change is a global issue, but one which will require local interventions. We, as the Cambridgeshire and Peterborough Combined Authority, recognise our responsibility to combat climate change wherever possible and want to proactively move towards a more sustainable future. Changes to the transport network will have an important role to play in driving our 'greener' future. In 2018 for instance, 33% of UK Carbon Dioxide – a harmful 'greenhouse gas' – emissions were produced by the transport sector, mainly through road transport.[115] Emissions from the transport sector remain at approximately the same level as in 1990, despite significant drops in emissions from other comparable sectors.

10.2 We believe that we can significantly improve the emissions greenhouse gasses from transport in Cambridgeshire and Peterborough. Targeting private car use will be one of the most effective ways we can achieve this, both by moving people from private cars to more sustainable transport modes, and by encouraging uptake of sustainable technologies such as electric vehicles. We must also make other forms of transport more sustainable by encouraging the uptake of new technologies such as hydrogen power for buses. To help reduce greenhouse gas emissions from transport within the Combined Authority we must;

- encourage mode-shift from the private car to more efficient and 'green' transport modes such as walking, cycling and public transport;
- 'green' public transport modes such as buses and trains by examining alternative fuels such as electricity and hydrogen;
- strengthen the electric grid to ensure that the roll-out of electric vehicles is not inhibited by electricity shortages; and,
- minimise the need to travel wherever possible.

10.3 Combined, these initiatives should help to drive transport-related emissions down across Cambridgeshire and Peterborough. The nature of climate change, as a spatially distributed problem, is that the implications of this local reduction in greenhouse gasses will not be felt directly. However, we believe that it is our responsibility to tackle this issue, one that is of increasing global significance.

[115] Source: **2018 UK Greenhouse Gas Emissions, Provisional Figures – Statistical Release**, (Office for National Statistics, 2018)

## Policy theme 10.1: Reducing the carbon emissions from travel

**Overview**

10.4 The Cambridgeshire and Peterborough economy is a globally recognised success story. Over the past decade and a half, growth in the Combined Authority's economy was 37% from 2001 to 2016, compared to a national average of 28%[116]. As the area grows, one of our overriding priorities is to ensure that this prosperity continues, attracting increasing numbers of people to live in, work in and visit the area. However, our success in growing the economy has brought challenges – including more traffic on our roads, increased congestion, and consequent carbon emissions.

10.5 There are three key factors which contribute to the high level of carbon emission in the Combined Authority area:

- congestion, driven principally by the private car on key routes in rural areas and market towns;
- heavy demand for access to Peterborough and Cambridge city centres and business parks – for example, the concentration of buses in central Cambridge is the single largest source of transport related pollutants in Cambridge City Centre; and
- the prevalence of long-distance road freight leading to a high proportion of traffic being Heavy Commercial Vehicles, which contribute a disproportionate amount of polluting emissions.

10.6 On a local scale, increased levels of carbon dioxide, one of the main Greenhouse Gases, are unlikely to cause direct adverse environmental impacts. Its main impact is on a global scale, but those impacts on global scale, in turn have local impacts such as overall temperature increase; longer, drier summers; and wetter winters with more extreme weather events such as flooding – in an area already susceptible to the impacts of dry summers and flooding. In the UK, the transport sector accounts for 31% of carbon dioxide emissions[117] while in Peterborough this figure is 44% and In Cambridgeshire it is 41%. In all three it is the highest contributing sector.

10.7 The Combined Authority is prioritising the delivery and promotion of more sustainable travel options such as rail, public transport, powered two-wheelers (e.g. motorbikes and motor-scooters), cycling and walking; and where suitable, initiatives to reduce the need to travel. However, in parallel, it is important to encourage a shift from the internal combustion engine vehicles to low emission petrol hybrid and ultra-low emission electric vehicles, where possible, to reduce these impacts.

[116] Source: **UK Productivity Statistics** (Office for National Statistics, 2018)

[117] Source: **UK Environmental Accounts**, (Office for National Statistics, 2018)

**Policy Summary**

10.8 In short, the policies to support the reduction of carbon emissions from transport, and a move towards a low carbon economy, are:

- utilising new technologies as they become available to minimise the environmental impacts of transport;
- managing and reducing transport emissions; and
- encouraging and enabling sustainable alternatives to the private car including reducing the need to travel.

*Policy 10.1.1: Utilising new technologies as they become available to minimise the environmental impacts of transport*

10.9 The Combined Authority 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;
- work with Smart Cambridge to harness emerging technologies to find smart and innovative ways to tackle environmental challenges caused by transport that can be rolled out across the whole area;
- support implementation of such new technologies if effective and financially viable;
- investigate the feasibility of introducing incentives to encourage businesses who require vehicles for their operations to embrace the use of electric vehicles; and
- support Local Highway and Planning Authority partners, where appropriate, in increasing their fleets of electric vehicles and increase the proportion of all council owned vehicles which are electric powered.

*Policy 10.1.2: Managing and reducing transport emissions*

10.10 The Combined Authority will:

- work with Local Highway and Planning Authority partners, transport operators and businesses to reduce transport related emissions of carbon and pollutants to help achieve agreed targets;
- work closely with bus operators to reduce the environmental impact of their fleets by increasing the number of vehicles which are use alternative fuels (excluding biofuels);
- support Local Highway and Planning Authority partners to fund electric vehicle charging points to encourage a shift from the internal combustion engine vehicles to low emission petrol hybrid and ultra-low emission electric vehicles;
- investigate the potential to provide priority parking for electric vehicles at key locations;
- develop maps that identify the locations of electric vehicle charging points and parking bays, and make this information publicly available e.g. online, through an app or as a leaflet;
- investigate the feasibility of introducing incentives for taxi operators to electrify their fleet;
- support initiatives that promote the use of powered two-wheelers (e.g. motorbikes and motor-scooters);
- support the government's proposals to reduce carbon dioxide emissions of rail travel by taking forward plans to electrify more of the rail network, and to encourage better energy and carbon efficiency on the railways; and
- encourage the use of Construction Environmental Management Plans (CEMPs) on our major transport projects to help reduce the risk of pollution and encourage sustainable construction methods and waste minimisation.

*Policy 10.1.3: Encouraging and enabling sustainable alternatives to the private car including reducing the need to travel*

10.11 The Combined Authority will:

- informed by the Local Highway Authorities' Local Cycling and Walking Infrastructure Plans, support enhancement of the cycleway and bridleway networks which provide opportunities for residents to make sustainable transport choices;
- support Local Planning Authorities to seek contributions from new developments to implement measures which will allow our growing population to travel sustainably;
- build upon the programmes of sustainable travel initiatives led by Local Highway Authority Partners to encourage more people to walk, cycle or use public transport rather than the car; and
- through the Spatial Framework, encourage proposals for new developments to be in sustainable locations and with mixed land uses to reduce the need for motorised transport.

# 11 Modal Policies

## Policy theme 11: Walking

**Overview**

11.1 Walking as a mode of travel has very little impact on the environment and a wide range of positive benefits for people and communities. A key benefit of walking is improvements to physical and mental health. Walking is a low impact form of exercise and a brisk ten-minute walk each day can contribute to the 150 minutes per week of physical exercise recommended by the NHS for those aged between 19 and 64[118]. The greatest benefits accrue to those who are least active[119]. In addition to health benefits, the UK Government recognises the importance of developments which are accessible on foot and the benefits this can bring in terms of social inclusion and safety.[120] Analysis by TFL has also shown that walking improvements can increase retail spend.[121] Walking also acts as a key sustainable mode for 'last mile' journeys such as those to/from public transport interchanges, in turn facilitating use of public transport for longer trips.

11.2 However, historical land use planning that has catered for motorised travel has often led to communities where travel distances and severance result in poor levels of pedestrian accessibility; pedestrian environments are of poor quality; road safety (particularly for the most vulnerable road users such as the young and elderly) is of concern; and personal safety is perceived as poor. These issues act as barriers to walking even when travel on foot it is a practical option in terms of 'crow fly' distance.

11.3 The National Planning Policy Framework[122] aims to ensure development is sustainable and contributes to economic, social and environmental objectives. In relation to walking it aims to support strong vibrant and healthy communities, in part by supporting well-designed, safe and accessible developments. From an environmental perspective the planning policy aims to minimise pollution and support a move to a low carbon economy.

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[118] Source: **Walking for Health** (NHS, 2016)

[119] Source: **10 minutes brisk walking each day in mid-life for health benefits and towards achieving physical activity recommendations** (Public Health England, 2017)

[120] Source: **National Planning Policy Framework** (Ministry of Housing, Communities & Local Government, 2018)

[121] Source: **Economic benefits of walking and cycling,** (Transport for London, accessed February 2019)

[122] Source: **National Planning Policy Framework** (Ministry of Housing, Communities & Local Government, 2018)

11.4 The Government's recent Cycling and Walking Investment Strategy[123] sets out an ambition to make walking (and cycling) the natural choices for shorter journeys, or as part of longer journeys. This includes journeys to get to school, college or work, travelling to the station, and for leisure. National policy aims for people to have access to safe, attractive routes for walking and cycling by 2040. It highlights the range of benefits associated with walking including reductions in congestion, improvements to physical and mental health, and support to local economies. By 2025 there is an objective to increase walking activity to 300 stages per person per year and increasing the percentage of children aged 5 to 10 that usually walk to school from the 2014 level of 49% to 55%.

11.5 Local Cycling and Walking Infrastructure Plans, as set out in the Government's Cycling and Walking Investment Strategy, are a new, strategic approach to identifying cycling and walking improvements required at the local level. Local Cycling and Walking Implementation Plans are currently in development for Peterborough and Cambridgeshire. The key outputs of Local Cycling and Walking Implementation Plans are:

- a network plan for walking and cycling which identifies preferred routes and core zones for further development;
- a prioritised programme of infrastructure improvements for future investment; and
- a report which sets out the underlying analysis carried out and provides a narrative which supports the identified improvements and network

11.6 By taking a strategic approach to improving conditions for cycling and walking, Local Cycling and Walking Implementation Plans will assist the Local Highway Authorities to:

- identify cycling and walking infrastructure improvements for future investment in the short, medium and long term;
- ensure that consideration is given to cycling and walking within both local planning and transport policies and strategies; and
- make the case for future funding for walking and cycling infrastructure.

11.7 The importance of walking as a measure to improve public health is also emphasised in the Transport White Paper *Creating Growth, Cutting Carbon*[124], where the role of walking as a form of exercise, is highlighted as a way of tackling obesity, cardiovascular disease, strokes, diabetes, some cancers and poor mental health. With only small changes in level of walking leading to tangible impacts on the health of residents. Walking can also support healthy communities through switching short journeys from traditionally fuelled vehicles to an active mode, simultaneously reducing emissions and improving air quality.

*Local Impacts*

11.8 Analysis of short work trips eligible for potential modal shift (2011 census) from car to walking or cycling show that Fenland has the lowest proportion of people that use active transport to get to work within a distance of under 2km, with lower walking rates than most districts. Cambridge City has the highest active transport rate with nearly 80% of short work trips being walked or cycled. South Cambridgeshire has higher rates of both walking and cycling than the other non-city districts. For Peterborough there are higher rates of cycling but lower levels of walking.

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[123] Source: **Cycling and Walking Investment Strategy** (Department for Transport, 2017)

[124] Source: **Creating Growth, Cutting Carbon – Making Sustainable Local Transport Happen** (Department for Transport, 2011)

11.9 Pedestrian infrastructure can present a barrier to walking. Peterborough has commissioned a large-scale walking audit that identified a range of infrastructure improvements which, if implemented, would work together to create a high-quality pedestrian environment and encourage walking[125].

*Local Priorities*

11.10 Ensuring pedestrian routes are safe, high quality, and provide connections between where people of all ages need to travel to and from on foot is important, as is ensuring these routes provide priority for pedestrians when conflicting with modes considered lower in the user hierarchy such as motor vehicles[126]. We will work with our Local Highway and Planning Authority partners to ensure that national and local planning policy is applied to new developments, to facilitate excellent pedestrian permeability and connectivity to the local community.

11.11 Existing strategic pedestrian routes will be improved, based on Link and Place principles[127]. Within these principles the roles of routes will be considered with the spectrum of their purpose: from pure conduit for efficient travel, through to a destination it its own right. This approach will be used to develop high quality links between public transport interchanges, our town centres, education sites, health facilities and other key employment sites. Routes will be prioritised through the Local Cycling and Walking Implementation Plan process to ensure each has a strong evidence base.

11.12 Ensuring that the opportunities to work in partnership with public health teams to encourage walking as a means of both preventing and treating related conditions will also be vital.

[125] Source: Sustainable Transport Fund Monitoring Report (Peterborough City Council, 2016).

[126] Source: **Cambridgeshire Local Transport Plan 3** (Cambridgeshire County Council, 2015)

[127] Source: **'Link' and 'Place': A New Approach to Street Planning and Design** (Jones, P., and Boujenko, N. Landor Press, 2007)

**Policy Summary**

11.13 The policies to support walking in the region aim to increase the number of walking trips by establishing safe, interconnected pedestrian connections between key destinations across our cities, towns and villages.

*Policy 11.1: Support an increased number of walking trips by establishing safe, interconnected pedestrian connections between key destinations across our cities and towns*

11.14 The Combined Authority and its Local Highway and Planning Authority partners will:

- continue to promote walking as a safe and healthy alternative to shorter distance car journeys;
- develop walking infrastructure, taking the Local Cycling and Walking Implementation Plan findings and recommendations into account in terms of identifying need and opportunity, prioritisation and integration with other highway works where possible;
- improve the integration of pedestrian links to ensure connectivity for walking trips to and from key destinations and other sustainable transport options (e.g. stations);
- continue to integrate principles of good design and accessibility for all into the development of walking infrastructure, including identification of how walking can be best prioritised depending on how locations function as transport links and places;
- develop a toolkit to guide decision making around walking schemes and initiatives, with a focus on the principles of Healthy Streets™ [128];
- ensure public realm is high quality so that it presents an attractive, safe, accessible environment to walk;
- seek opportunities to work in partnership with public health teams to encourage walking as a means of both preventing and treating related conditions;
- work with Highways England to identify where and how safe crossing points can be introduced on busy roads, to improve permeability; and
- bid for revenue funding to support behaviour change through education, training and promotion.

[128] See: **Healthy Streets**

## Policy theme 12: Cycling

**Overview**

11.15 Nationally, two out of every three personal trips are within five miles - an achievable distance to cycle for most people.[129]

11.16 Greater levels of cycling are critical if existing traffic problems are not to be exacerbated further, particularly with the amount of planned growth in the area. A modal shift from motorised modes to cycling also helps reduce harmful vehicle emissions, contributing to improvements to air quality and supporting efforts to tackle global warming

11.17 Cycling provides a range of significant health benefits for us. Studies show that people who cycle for travel purposes (as opposed to leisure purposes) are at less risk of developing heart disease and cancer.[130] Furthermore, those of us who commute by bike have less sickness absence (1 day less) per year compared to those who do not cycle.[131]

11.18 As well as the health benefits from exercise, there are benefits for the wider community: cycling can provide improved access to employment, training and other vital services for those without a car which, in turn, provides benefits to the local economy. Recent research led by Transport for London[132] has highlighted the wider economic impacts of cycling (and walking) in boosting high street retail sales and revitalising local town centres.

11.19 As with walking, national policy in relation to cycling sets out an ambition to make cycling a natural choice for shorter journeys, or as part of longer journeys.[133] By 2025 there is an aim to double cycling, where cycling activity is measured as the estimated total number of cycle stages made each year, from 800 million journeys in 2013 to 1.6 billion journeys in 2025.

11.20 A Local Cycling and Walking Implementation Plans are currently in development for Peterborough and Cambridgeshire. These will provide evidence for prioritised investment in cycling (and walking) infrastructure.

*Local Impacts*

11.21 The 2011 census showed travel to work mode share across Peterborough and Cambridgeshire was 5.1%, higher than the English average of 2.8%. Though most areas show higher levels than the English average, within the Cambridgeshire and Peterborough, there are large variations. Cambridge is the cycling capital of the UK, with cycle mode share to work at 29%, far higher than its nearest rivals, Oxford, at 17%. This cycling culture is spreading out to South Cambridgeshire at 7.6%, a 29% increase since the 2001 census. In, Peterborough at 5.7%,

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[129] Source: **Cycling and Walking Investment Strategy** (Department for Transport, 2017)

[130] Source: **Association between active commuting and incident cardiovascular disease, cancer, and mortality: prospective cohort study** (Celis-Morales et al. 2017)

[131] Source: **Impact of the Cycle to Work Scheme Evidence Report** (Institute for Employment Studies, 2016)

[132] Source: **Walking and Cycling – the Economic Benefits** (Transport for London, 2018)

[133] Source: **Cycling and Walking Investment Strategy** (Department for Transport, 2017)

Fenland at 4.5%, Huntingdonshire at 3.6%, and East Cambridgeshire at 2.8% cycling levels have decreased. [134]

11.22 Across Cambridgeshire and Peterborough provision of cycling infrastructure varies in terms of the extent of the network and its integration and connectivity. It is most extensive and well connected in Peterborough and Cambridge:

- **Peterborough:** The city's Primary Cycle Network is a series of 11 strategic cycleways. These routes are complemented by the Peterborough Green Wheel: a circular regional route created from cycleways, bridleways and footpaths[135]. Peterborough has developed a network of 250 kilometres of dedicated cycleways with many of these segregated.
- **Cambridge:** Much of the historic city core has traffic restrictions in place and many streets outside the centre have a 20 mile per hour limit. The city has a primary network of on-road and segregated cycle routes, no through routes for motor vehicles and designated local links to surrounding villages and key destinations.

11.23 The challenge is to increase cycling levels in Cambridge and around, where it is already very high, in order to accommodate the predicted growth in trips into and around the city and to encourage and spread the Cambridge cycling phenomena to the surrounding area and beyond. It is also to reverse the decline in cycling to work in Peterborough and the rest of the County with the provision and promotion of high-quality cycle networks which encourage the use of bikes for short trips and provide much needed access to training, employment and public transport for those without access to a car in rural areas.

11.24 At a local level the impacts of physical inactivity and poor air quality are evident. In 2013, the British Heart Foundation Health Promotion Research Group at Oxford University prepared estimates of the primary and secondary care costs attributable to physical inactivity. The total costs for Cambridgeshire amounted to £9.5 million (or about £11 a person each year)[136]. In 2010, Public Health England estimated that long term exposure to $PM_{2.5}$ in Peterborough accounted for 829 years of life lost due to $PM_{2.5}$.

[134] Source: **2011 Census: Method of travel to work, Population: All usual residents aged 16 to 74** (ONS, 2011)

[135] Source: **Peterborough Local Transport Plan 4** (Peterborough City Council, 2016)

[136] Source: **Transport and Health, Cambridgeshire Transport and Health JSNA - Active Transport: Key Findings** (Cambridgeshire County Council, 2017)

*Local Priorities*

11.25 Local priorities for cycling differ across the Combined Authority area due to the large difference between levels of cycling in the city of Cambridge compared to other areas and the needs of those cycling in urban environments in the cities and market towns compared to cycling in rural environments.

11.26 In the Greater Cambridge Partnership area, where cycling already accounts for a 29% mode share, the following are seen as a priority:

- high quality cycle provision, bringing in Dutch-style segregation along the main radial and orbital roads, where carriageway width permits;
- cycle safety measures at major junctions which could include innovative solutions such as advanced green or separate signals for cyclists and Dutch-style roundabout designs;
- review of on road car parking on roads forming part of the city cycle network to improve cycle provision;
- using the opportunity that the new developments in and around the city present to create a step-change in the level and quality of cycling facilities, especially segregated cycling infrastructure, that are provided, which can in turn be plugged into the wider network;
- use filtered permeability where possible to make cycling and walking the obvious mode of choice for new and existing residential areas;
- provision of additional links on the existing network to join up key destinations that are already partially served by the network (for example the Chisholm Trail);
- as part of the wider corridor treatment, seek to widen existing cycle and pedestrian paths and introduce new segregated paths where appropriate. (Seek to ensure bus/cycle lanes are wide enough for a bus to overtake a cyclist without leaving the lane where space constraints allow);
- provision of high quality, direct and segregated links from villages into the city and to transport interchanges (including Park & Rides) along the main transport corridors with similarly high-quality and segregated links alongside any new transport corridor such as the Cambridgeshire Autonomous Metro (CAM);
- increasing cycle parking capacity so this does not present a barrier to certain cycling trips;
- managing and supporting bike sharing schemes which promote cycling but ensure that the public realm is not negatively affected;
- supporting and encouraging last mile freight delivery by cargo bikes;
- improving publicity and the legibility of the cycle network – in particular improving signage, providing information to tourists/visitors and marketing and promotion to new residents;
- working with partners such as the NHS to publicise the health benefits associated with cycling; and
- work with workplaces to ensure high quality ‘end of journey’ facilities, not just safe and secure parking, but showers and other facilities are provided.

11.27 In Peterborough and surrounding areas, the following is seen as a priority:

- expansion and improvement of the Primary Cycle Network including provision of a north-south cycle route through the city;
- investigating the provision of a cycle hub in the city centre;
- improving cycle links to the railway station and other key destinations;
- improving cycle parking at transport interchanges, including rural bus stops;
- investigating the possibility of giving cycles priority where practicable;
- implementing improvements to the Green Wheel;
- improving cycling connections to district centres;
- ensuring new developments include high quality cycle provision, especially segregated links, and good linkages to the existing network;
- encouraging businesses to provide secure, high quality, cycle parking for employees and visitors, as well as other 'end of journey' facilities such as showers; and
- to promote cycling through training, travel planning, events and information such as the city cycle map.

11.28 Within and around the Market Towns the following are priorities:

- enhancing, improving and adding to the cycle network within each town, particularly to key destinations and core infrastructure;
- ensuring new developments include cycle provision to a minimum standard, especially segregated link, looking to the Department for Transport's good practice guidelines, that provide excellent linkages to the surrounding cycle and road network and key destinations;
- encouraging cycling by measures including personalised travel planning, smarter choices promotion, education and technology; and
- increasing cycle parking capacity and 'end of journey' facilities and workplaces.

11.29 Priorities for cycling in rural parts of the Combined Authority are as follows:

- considering the reduction of speed limits on all roads that aren't major routes or within settlements in order to improve the environment on country roads, whilst continuing to prioritise segregated cycleways where possible;
- creating a cycle network that connects major employment sites, transport interchanges, secondary schools and key visitor sites;
- working with landowners to formally designate new routes; and
- provision of cycle parking at stations, bus stops, schools and local centres.

**Policy Summary**

11.30 The policies to support cycling in the region aim to increase the number of cycling trips through the establishment of safe and interconnected cycling links across the region's cities, towns and settlements. This will be supported by other necessary infrastructure, such as cycle parking. Our Local Walking and Cycling Infrastructure Plans for Cambridgeshire and Peterborough will ensure that cycling (and walking) infrastructure investment is done so based on evidence and prioritised for greatest impact; and by ensuring cycling (and walking) are at the top of the Combined Authority's transport user hierarchy for the planning of our transport networks.

*Policy 12.1: Enhance and expand the existing cycle networks in Cambridge and Peterborough and develop or improve cycling links to the surrounding settlements*

11.31 The Combined Authority will work with local partners to:

- adopt a common standard for cycling infrastructure across Cambridgeshire and Peterborough in accordance with national guidance;
- support development of the strategic and local cycle route networks to better connect residential areas, key destinations and other sustainable transport options (e.g. stations);
- develop high quality cycle provision, bringing in Dutch-style segregation along the main radial and orbital roads;
- improve cycling connections to district centres;
- work with Highways England to identify where and how safe crossing points can be introduced on busy roads, to improve permeability;
- develop effective and innovative measures to improve cycle safety at major junctions;
- review on-street car parking on routes forming part of the city cycle network to re-allocate road space for cyclists where appropriate;
- provision additional links on the existing network to join up key destinations that are already partially served by the network (for example the Chisholm Trail);
- seek to widen existing cycle and pedestrian paths and introduce new segregated paths where appropriate, as part of wider corridor treatment;
- investigate the possibility of giving cycles priority where practicable;
- expand and improve the Primary Cycle Network in Peterborough including provision of a north-south cycle route through the city;
- investigate the provision of a cycle hub in the Peterborough City Centre;
- improve cycle links to the railway station and other key destinations in Peterborough; and
- implement improvements to the Green Wheel in Peterborough.

*Policy 12.2: Enhance the cycle network within market towns with high quality links to key destinations and in rural areas provide cycle routes which connect to public transport hubs as well as key destinations such as major employment sites and secondary schools.*

11.32 The Combined Authority will work with local partners to:

- provide high quality, direct and segregated links from villages into the city and to transport interchanges along the main transport corridors with similarly high quality and segregated links alongside any new transport corridor such as the Cambridgeshire Autonomous Metro (CAM);
- enhancing, improve and add to the cycle network within each town, particularly to key destinations as identified by the Local Cycling and Walking Implementation Plan process;
- consider the reduction of speed limits on all roads that are not major routes or within settlements, in order to improve the cycle environment on country roads, whilst continuing to prioritise segregated cycleways where possible;
- create a cycle network that connects major employment sites, transport interchanges, secondary schools and key visitor sites; and
- working with landowners to formally designate new routes.

*Policy 12.3: Ensure that cycle parking is secure, conveniently located and meets demand*

11.33 The Combined Authority will work with local partners to:

- identify suitable new areas for cycle parking, and increase capacity of existing parking locations, so that availability does not present a barrier to certain cycling trips;
- encourage organisations to provide secure, high quality, cycle parking for employees and visitors;
- provide and improve cycle parking at stations and bus stops (including rural bus stops to facilitate multi-modal journeys; and
- improve cycle parking and cycle hubs at strategic locations including schools and local centres.

*Policy 12.4: Ensure that new developments provide a high-quality cycling environment as well as linkages into the existing cycle network and new links to key destinations where needed*

11.34 The Combined Authority will work with local partners to:

- use the opportunity that the new developments in and around our cities present to create a step-change in the level and quality of cycling facilities that are provided, which can in turn be plugged into the wider network;
- will work with developers, through the Non-Statutory Spatial Framework, to prioritise installation of walking and cycling infrastructure early in development and harness the behaviour change opportunities resulting from new movers;
- use filtered permeability where possible to make cycling and walking the obvious mode of choice for new and existing residential developments;
- ensure new developments include high quality cycle provision and good linkages to the surrounding cycle and road network;
- ensure that cyclists' needs are considered at the design stage of any highways and transport improvement schemes, such as Cambridgeshire Autonomous Metro (CAM); and
- continue to integrate good design principles for cyclists into the design of infrastructure and developments, including identification of how cycling can be best prioritised in the context of location (such as segregation of cycle paths).

*Policy 12.5: Promote cycling as a healthy, convenient and environmentally friendly mode of transport to residents, businesses and visitors*

11.35 The Combined Authority will work with local partners to:

- support and encourage last mile freight delivery by cargo bikes, supporting and building on existing schemes in Cambridge;
- support the introduction of new, innovative opportunities for cycling such as dockless bike share, e-bikes (and associated charging infrastructure) and electric freight bikes, while ensuring the public realm is not negatively affected;
- support community-led cycling projects that promote cycling among groups that are traditionally under-represented, including women, those from Black, Asian and Minority Ethnic (BAME) backgrounds and people with disabilities;
- improve publicity and the legibility of the cycle (and walking) network - in particular improving signage and wayfinding, cycle maps, online information and journey planning, information for tourists/visitors, and marketing and promotion to new residents;
- work with partners such as the NHS to publicise the health benefits associated with cycling;
- promote the provision of 'end of trip' facilities, including secure cycle parking, showers and lockers among businesses;
- continue to promote cycling as a safe and healthy alternative to shorter distance car journeys; and
- encourage and promote cycling through Smarter Choices activities such as training to Bikeability standard, travel planning, personal travel planning, and events and improved digital technology and information.

## Policy theme 13: Delivering a seamless public transport system

**Overview**

11.36 Public transport, including bus, rail, mass transit and demand-responsive transit is most effective, and attractive to passengers, when seamless and easy-to-use. Poorly integrated public transport services deter their use amongst residents and visitors, making it difficult to understand which service to use, where to change buses or onto other services, or the best way to pay for journeys.

11.37 Ensuring that Cambridgeshire and Peterborough's public transport system is seamless and well-integrated is therefore key to both enabling our residents to travel easily and with confidence, as well as ensuring it offers an attractive alternative to the car.

*Ticketing and journey information*

11.38 Although Cambridgeshire and Peterborough's public transport networks are extensive, including both rail services and a number of overlapping urban, inter-urban and rural bus networks, it does not always provide the seamless experience that passengers expect. Bus services are run by multiple operators, offer limited multi-modal or multi-operator ticketing, and it can be difficult to understand which services are best suited for the many different types of journeys we make.

11.39 The introduction of smartcard, contactless card and mobile ticketing has begun on Stagecoach and Go Whippet bus services, but better integration between all providers would simplify journeys. Integrated ticketing will be a component of scheme development and the business case development for new bus operating models, such as enhanced partnership or franchising. This will build on existing feasibility work being carried out by the Greater Cambridge Partnership.

11.40 Rail journeys could also benefit from greater use of pay-as-you-go smartcard or smart-phone / tablet device or contactless ticketing, reducing the hassle of buying paper tickets prior to travel.

*Transport Hubs and Park & Ride*

11.41 Good quality transport hubs are key to ensuring that passengers can interchange between bus, rail and demand responsive transport services seamlessly, and hence ensure that the wider transport network is attractive to passengers. However, many interchanges currently lack sufficient facilities, such as real time information provision, allowing people to make multi-modal or multi-stage journeys with confidence.

11.42 Park & Ride services provide for many public transport journeys into Cambridge, and for which there is often little alternative to the car for the entire journey, can be poorly linked into the wider transport network. This means that using Park & Ride bus services is not a realistic choice for those without access to a car, and can worsen traffic congestion surrounding Park & Ride sites. Better onward connectivity at these sites – switching them from out-of-town car parks to integrated travel hubs, in development with Cambridgeshire Autonomous Metro (CAM) – will help to provide a more integrated transport system.

**Policy summary**

11.43 In order to develop a seamless, integrated network that meets the needs of the travelling public, the Combined Authority will:

- explore new methods of ticketing to improve the ease and affordability of travel, including across transport modes and operators, learning from best practice elsewhere;
- improve journey information to maximise the ease of travelling by public transport;
- support the delivery of new and improved integrated, multi-modal transport hubs; and
- support additional Park & Ride provision, in conjunction with Cambridgeshire Autonomous Metro (CAM), where fully integrated into local transport networks.

11.44 The Combined Authority will also explore new methods of bus operation to support these ambitions, including new Enhanced Partnership or franchising arrangements, as recommended in the Cambridgeshire and Peterborough Bus Review. This is set out in more detail in policy theme 14 (Rural transport services) and policy theme 15 (Improving public transport in our towns and cities).

*Policy 13.1: Explore new methods of ticketing to improve the ease and affordability of travel, including across transport modes and operators*

11.45 Bus and rail services in Cambridgeshire and Peterborough are operated by multiple operators. Each operator covers different journeys and markets. For example, 'Stagecoach' cover most local and medium-distance journeys around Peterborough, but specific routes are serviced by other providers such as 'Delaine', who run three routes terminating in Peterborough, and 'Excel' who run a long-distance connection along the A47 to Norwich. Broadly, each bus operator offers their own range of tickets for different journeys – a complex system which can be difficult to understand.

11.46 Passengers can find it difficult to understand the most affordable way to travel, or the cost of travel in advance. Some bus operators publish limited information online, and when travelling by rail it can be difficult to understand what ticket is best suited to one's journey. Ticketing can also poorly reflect modern travel patterns and ways of working – significant discounts can be available for season tickets for those travelling regularly five days a week, but represent poor value for money for part-time or 'agile' workers. Such workers are often on lower incomes with fewer travel options, yet since they travel to and from work less often, occasionally work-at-home or travel to different locations, can pay significantly more per journey for their travel.

11.47 Longer-distance journeys, or those requiring interchanges between different transport modes and operators, can be especially difficult. Tickets only valid on one operator may mean that passengers cannot take the first service to their destination, increasing the cost of travel and acting as a barrier to using public transport. The Combined Authority will therefore encourage operators to:

- simplify – and make more transparent – their ticketing and the cost of travel;
- help make travel more affordable for regular travellers by offering a greater range of tickets, such as carnets or 'part-time' season tickets;
- offer attractive multi-operator tickets to make journeys cheaper and easier for passengers; and
- support the continuation and expansion of 'PlusBus' tickets to make travelling by rail and bus easier.

11.48 New technology, such as smart ticketing and contactless bank cards, offer significant potential to make travelling by public transport easier, quicker and more attractive, reducing the need to carry change or buy a paper ticket in advance. Many operators have already adopted such new methods of ticketing, including:

- All Stagecoach and Delaine bus services accept contactless cards, removing the need to worry about change and reducing bus dwell times; and
- Season tickets for rail journeys between Kings Lynn / Ely / Cambridge and Peterborough to London will soon be able to be uploaded by smartcard, a feature already available on Stagecoach buses;

11.49 The Combined Authority will work with operators to continue the expansion of innovative, new methods of ticketing that improve the ease of travelling by public transport. We will:

- continue to encourage the rollout of Pay-As-You-Go contactless and mobile ticketing on all bus services in Cambridgeshire and Peterborough;
- work with the Department for Transport, Network Rail and train operating companies to explore the potential for Pay-As-You-Go ticketing (such as smartcards and/or Contactless) for rail journeys, eliminating the need to buy a paper ticket in advance for occasional travellers;
- support proposals to extend smartcard ticketing for season tickets to our rural railways; and
- explore how to better integrate bus and rail tickets using new technology (such as PlusBus on smartcards).

11.50 Future technology also has the potential to significantly change the way that journeys are planned, made and paid for in future. Mobility as a Service (MaaS), which involves integration of on-demand shared services in conjunction with existing mass transit, and paid for as one 'subscription' package, is expected to become increasingly popular and has already been trialled in Gothenburg, Sweden. The Combined Authority will seek to provide a policy environment that encourages such innovation, and helps to create new transport options for residents and visitors.

11.51 This could include supporting new technology-led 'demand responsive' shared transport services, using small minibuses or shared taxis. Users could book in advance with a specific pick-up and drop-off point, either by phone, online or through a smartphone app, with services operating across a broad area or along a semi-fixed route that can divert to pick up individual passengers. Such services have already been trialled in Oxford: 'PickMeUp' service operates as an 'on demand' bus service, with passengers arranging their trip via an 'Uber-style' app and typically being picked up within 10 minutes of arranging a booking.

11.52 Development of these services will be led by the private sector, and the Combined Authority will carefully consider how it can best incorporate such new types of transit into the wider public transport network to maximise benefits for passengers. This could include supporting the development of joint ticketing or integrated services, such as passengers able to combine a journey on the Cambridgeshire Autonomous Metro (CAM) network with a 'last mile' on-demand service, paid for on one ticket.

*Policy 13.2: Improve journey information to maximise the ease of travelling by public transport*

11.53 Ensuring that users can easily understand the coverage and extent of the public transport network, including walking and cycling, is key to ensuring it is attractive to use. Anyone, and particularly those with limited options, should be able to quickly understand – online, by phone or at a stop or station – where services run to and from, from which stops or stations, and how frequently they operate.

11.54 Provision of real-time service information can also play a key role in giving users the confidence that their service is on its way, and help them better predict when to travel and how long it will take. Journey planning software, such as Google Maps and Citymapper, has transformed the ability to make journeys across the country, particularly for longer-distance, multi-modal journeys which would otherwise be difficult to plan.

11.55 The Combined Authority will therefore work with transport operators to:

- ensure that high-quality service information, and where appropriate service maps, are readily and easily available through a variety of sources, both online and physically at bus stops and railway stations;
- support efforts to operate frequent 'turn up and go' services that do not require checking timetables or, where demand does not support this, regular services operating to a memorable 'clockface' timetable;
- help ensure that scheduled and real-time data, where appropriate, is publicly available and shared with:
  - software developers and innovators to best allow them to develop new tools for passengers to plan their journeys, including real-time information on the location of bus services, how busy specific rail services are, and / or what fares are best suited to their journey; and
  - the Combined Authority, the GCP and / or local councils to help plan bus networks and frequencies to best serve local communities. Sharing such data may also be a condition of any *Enhanced Partnership* delivery model for bus services, as outlined in policy theme 15 (Improving public transport in our towns and cities).

11.56 Smart Cambridge illustrate the potential for technology and 'digital' platforms to support the user experience, by providing easy access to real-time information on bus services, traffic and parking, and innovative 'SmartPanels' at major transport interchanges and at key destinations which provide up-to-the-minute travel information clearly to users. The Combined Authority will continue to support efforts to roll out such technology across a wider geography, to help residents and visitors help plan their journeys more effectively.

*Policy 13.3: Support the delivery of new and improved integrated, multi-modal transport hubs*

11.57 Many journeys require interchanging between different services or different modes of transport. Interchange, however, is typically unattractive for users, especially where they are unfamiliar with which service to catch or where, and can deter use of public transport. Better transport 'hubs' – with different services under one roof, high-quality waiting facilities and real-time information provision – can significantly improve the ease of travel, and encourage people to make journeys for work or leisure that they would not otherwise have made.

11.58 Working in partnership with transport operators, local councils and the Greater Cambridge Partnership, the Combined Authority will work to deliver improvements to major transport interchanges in our cities and market towns to help deliver a seamless transport network. Interchanges should be inclusive and secure by design, with suitable waiting areas, real-time travel information, and clear signage so that all users can easily and quickly find where their service departs from.

11.59 The Combined Authority will also support the Greater Cambridge Partnership in developing intermediate-scale Travel Hubs (Foxton and Whittlesford) and smaller-scale rural travel hubs within South Cambridgeshire, located close to existing transport corridors (served by reliable and relatively frequent public transport services) where residents can walk, cycle or drive to and continue their onward journey by a sustainable mode of travel. Initial public engagement has taken place on piloting these in the villages of Sawston and Oakington, and each hub includes car and cycle parking, bus shelters with real-time information, and space for passengers to interchange. The Combined Authority will seek to roll out such hubs across rural Cambridgeshire, linked to our proposals for the rural bus network, as set out in policy theme 14 (Rural transport services).

*Policy 13.4: Support additional Park & Ride provision, in conjunction with Cambridgeshire Autonomous Metro (CAM), where fully integrated into local transport networks*

11.60 Park & Ride currently provides an essential service for journeys to and from Cambridge, particularly during peak hours, with more than three million trips annually. It plays a key role in enabling commuters and visitors to access the city sustainably, where public transport is not available or attractive for their entire journey.

11.61 However, Cambridge's Park & Ride sites are, in some respects, a victim of their own success. Several are located too close to the city they serve, attracting significant local traffic flows and, in some cases, contributing to local congestion on the city fringe. This contributes to poor air quality, and leads to some users simply driving for their entire journey. Sites typically consist of large car parks linked to Cambridge City Centre by shuttle services, and are not necessarily optimised for onward connectivity to surrounding rural communities. Such settlements – perhaps only located a mile or two away – could be better connected to Park & Ride sites by public transport as well as walking and cycling routes.

11.62 The delivery of Cambridgeshire Autonomous Metro (CAM), together with new segregated public transport links on the corridors surrounding Cambridge, offers an opportunity to rethink the role of Park & Ride provision. CAM will provide fast, frequent and reliable public transport access direct from Park & Ride sites to multiple destinations in Cambridge, offering an attractive option for users. Ensuring that future Park & Ride provision best meets both the requirements of users, and supports Cambridge's growth sustainably is, therefore, a key priority.

11.63 We propose to move towards a new model of Park & Ride provision, in coordination with CAM, whereby new Park & Ride sites are located further from Cambridge and closer to key highway corridors, thereby enabling users to seamlessly access Park & Ride facilities without contributing to congestion on the city fringes. Where practicable, and existing road networks allow, sites should have direct access to the strategic highway network, enabling those making longer-distance journeys by car to access Cambridge via CAM without impacting on the local road network. As CAM is rolled out, it is likely to result in a larger number of smaller, more local sites.

11.64 Park & Ride sites will become multi-modal transport hubs – akin to larger 'rural travel hubs' – providing good onward connectivity to local communities through better walking and cycling access, connecting bus services, and – when technology allows – future-proofed to facilitate access via on-demand mobility services, rather than simply catering for access via private car. These hubs also encapsulate integrating Park & Ride sites with the railway network ("Park and Rail"), such as that being explored by the Greater Cambridge Partnership at Foxton, south of Cambridge.

11.65 Our proposals will:

- facilitate the expansion of Park & Ride facilities, providing additional capacity for those with no alternative to the car to access Cambridge sustainably;
- maximise the benefits of CAM by providing the greatest opportunities for those able and willing to walk, cycle or use connecting public transport to access CAM services; and
- best support Cambridge's growth, alleviate congestion, and provide more sustainable travel options for those without access to a car.

11.66 Over the longer-term, the increased scope for more on-demand services, and better public transport accessibility to such travel hubs, is expected to reduce the need for large volumes of surface parking, as more users access sites via sustainable means. Sites could, therefore, develop 'flexibly' in future, with passive provision for surface parking to be converted to new uses subject to the roll-out of new technology. This could include the following features, while also ensuring that basic requirements such as personal and vehicle safety are maintained:

- improved waiting facilities for new, on-demand services;
- additional, higher-quality cycle parking, such as dedicated 'cycle park' buildings with maintenance shops and facilities (such as at Cambridge station)
- charging infrastructure for CAM or other transit vehicles; and

facilities to support 'last mile' distribution of freight, with freight transported by Heavy Commercial Vehicles accessing via the strategic road network to smaller electric vans and cargo-bikes for 'last mile' sustainable distribution.

## Policy theme 14: Rural transport services

**Overview**

11.67 Approximately 40 percent of Cambridgeshire and Peterborough's population – more than 300,000 people – live in rural communities outside of our cities and market towns. Residents of these areas, particularly the 10% of rural households without access to a car[137], rely on public transport, cycling and walking for their journeys. Rural public transport, including rural buses, community transport and local rail services, play an essential role in allowing residents to travel to work, access local shops, services and healthcare facilities, make journeys to school or college, or access other amenities.

11.68 Serving rural areas effectively presents unique challenges for public transport systems. Rural bus services, by virtue of serving smaller communities, often transport fewer passengers than their urban counterparts, yet due to longer distances and journey times cost more, per journey, to operate. Services can be infrequent, and since rural roads are typically less prone to congestion, they can be particularly slow compared to travelling by car. These factors mean that rural bus services are comparatively unattractive to those who have the choice of travelling by car for their journey, and combined with recent reductions in financial support for rural services, mean that patronage has been in long-term decline.

11.69 Provision of high-quality rural public transport, however, is essential for social inclusion and providing equal opportunity for all, together with supporting the environment and reducing congestion. Rural areas often have older populations, with limited or no access to private transport; many younger people rely on public transport to access education and employment. Our plans will ensure that all rural areas have a public transport service that provides access to employment, education, shopping and recreation, operating at least six days a week at a reasonable frequency.

11.70 The Cambridgeshire and Peterborough Strategic Bus Review[138] highlighted that, both nationally, regionally and locally, there has been little overall strategy and vision for the rural public transport network. Vital community links have typically been provided by a network of subsidised services, many operating very infrequently, sometimes only a few times per week, or operating via complex lengthy routes, overlaid by a network of demand-responsive and community transport services designed to 'fill the gaps'. Declines in patronage and local government funding means that a new, more holistic, network-based approach is needed.

11.71 Our plans will deliver a more comprehensive, efficient rural public transport system; help to seamlessly connect our rural areas; ensure social inclusion and opportunity for all our residents, and help to guarantee the long-term future of our rural public transport network.

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[137]Source: **Car Ownership by Rural-Urban Classification.** (Office for National Statistics, 2011) Figure refers only to rural areas within Cambridgeshire and Peterborough.

[138] Source: **Cambridgeshire and Peterborough Strategic Bus Review: Options Report** (Cambridgeshire & Peterborough Combined Authority 2019)

**Policy Summary**

11.72 Improving public transport in rural areas is key to supporting successful, thriving rural towns and villages, and providing a genuine alternative to the car which ensures access to opportunity for all. Our policies are designed to ensure the delivery of a comprehensive, integrated rural public transport system, which serves the needs of our rural residents wherever they live. The Combined Authority will:

- explore different mechanisms to help deliver a more integrated, coherent rural transport network, in collaboration with operators, local councils, communities and stakeholders;
- work with operators to develop a frequent, attractive rural bus network, forming the backbone of the rural public transport network; and
- support local community transport, fully integrated into the rural public transport network, for communities not served by the bus or rail network.

*Policy 14.1: Explore different mechanisms to help deliver a more integrated, coherent rural transport network, in collaboration with operators, local councils, communities and stakeholders*

11.73 The Cambridgeshire and Peterborough Strategic Bus Review clearly set out the challenges facing rural bus services, including declining patronage and reduced local government subsidy, and highlighted the need for a new approach to delivering an integrated rural public transport network: bold but practicable and affordable, offering stability and opportunities to achieve economies of scale. This included a number of fundamental principles, recognising that:

- there is a continued need for good quality rural public transport, which will require adequate financial support;
- a holistic view of urban and rural public transport network should be taken, with the Combined Authority exerting some form of considered, central planning over rural networks to ensure they develop as an integrated, efficient 'network', while leaving room for tailoring solutions to local needs;
- a range of different operators and types of service will be necessary to find the most effective solutions for different areas, including (but not limited to) private bus, taxi and private hire vehicles, community transport, public sector inhouse vehicles, car clubs and car share schemes, all promoted across a single integrated service;
- it will be important to involve rural communities throughout, both to articulate needs and to assist in the formulation and implementation of solutions; and
- collaboration by all interested parties is vital to achieve the required service integration, economies of scale and effective use of resources. This will form the basis of an integrated approach, potentially using the powers of the Bus Services Act 2017[139] may help.

[139] See: **Bus Services Act** (HM Government, 2017)

11.74 The Combined Authority will therefore explore the best operating and delivery model for our rural public transport network, with the aim of ensuring that all rural areas have a public transport service that provides access to employment, education, shopping and recreation, operating at least six days per week at reasonable frequency. We will move towards delivering a network, as outlined in the Strategic Bus Review, where:

- inter-urban bus services, combined with rail services, form the framework for the rural public transport network, operating at attractive high frequencies; and
- there is a presumption against low frequency fixed bus routes, which should be replaced by more flexible demand responsive services feeding into a network of rural travel hubs.

*Developing a future delivery model for our bus network*

11.75 Delivering this network 'on the ground' is set out below, in terms of our proposed improvements to rural bus and demand-responsive transport services. However, it will also require a new model of operation for our rural transport network, where the Combined Authority plays a central role in planning a holistic, coordinated rural transport network. While many rural bus services are contracted directly by Cambridgeshire County Council or Peterborough City Council, most inter-urban and Busway services are not, and there is little control over their routes, frequencies or quality of service. This undermines the ability to create a comprehensive, integrated rural transport network.

11.76 The Combined Authority, in line with the recommendations of the Strategic Bus Review, is therefore beginning engagement with local operators on how to improve service provision and integration through 'Enhanced Partnerships'. Subject to successful engagement with operators, and mutual agreement on a future vision for the network, this would allow the delivery of minimum standards for service quality, vehicles and ticketing, and allow the Combined Authority to jointly specify the routes and frequencies of our bus services in partnership with operators to deliver our plans for the network.

11.77 If high-quality Enhanced Partnerships could not successfully be negotiated with operators, the Combined Authority will explore alternative franchising options for the bus network, allowing them to directly control routes, services and fares, in line with the requirements under the Bus Services Act 2017.

*Ensuring sustainable, long-term funding for our rural public transport network*

11.78 Delivering our plans for rural transport will require secure, ongoing financial support. The Cambridgeshire and Peterborough Strategic Bus Review sets out potential funding sources, including additional support from the public sector, new revenue streams, and better sharing of revenues from operators under new Enhanced Partnership arrangements. Total Transport pilots have also indicated that enhancements to rural transport may be deliverable within existing budgets, if these are pooled and deployed more effectively (as discussed in policy theme 14 (Rural transport services).

11.79 The Combined Authority will therefore continue to explore sustainable, long-term funding sources for our rural transport network, in partnership with local councils and other public bodies responsible for funding community transport. Securing such funding is essential to deliver our ambitions for rural transport, and ensuring social mobility and access to opportunity for all.

*Working in partnership to drive outcomes*

11.80 Key to ensuring the continued success of the rural public transport network will be successful engagement with communities and stakeholders, to identify and implement service improvements.

11.81 In keeping with the findings of the Strategic Bus Review, the Combined Authority will therefore continue to work closely with local councils, communities and stakeholders to expand and develop our rural transport network. A Bus Reform Task Force has been established to implement the recommendations of the Strategic Bus Review. Their remit will include exploring new ways to work in partnership to deliver better services, including examining the potential for establishing 'community bus partnerships', similar to those for rail, as a means of connecting local communities with their bus services and those that operate them. Through the work of the Task Force, local communities will have the opportunity to influence and inform the routes and services provided in their area.

*Policy 14.2: Work with operators to develop a frequent, attractive rural bus network, forming the backbone of the rural public transport network*

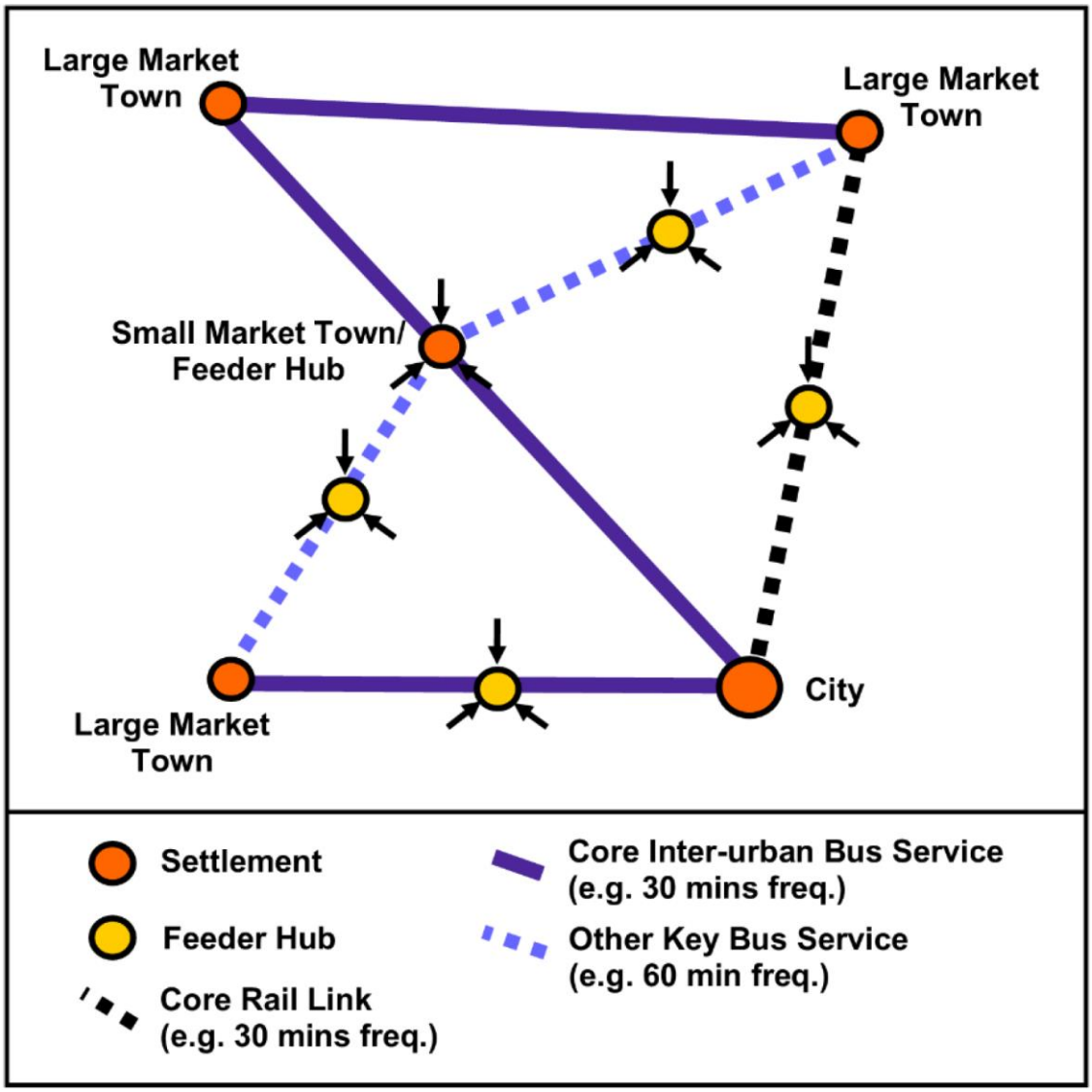
11.82 Rural bus services provide essential transport linkages for those living in rural areas, connecting them to local services, education and employment opportunities. Inter-urban services within our region, such as the X1 between Peterborough, Wisbech and Norwich and the X5 between Cambridge and St Neots (continuing to Bedford, Milton Keynes and Oxford) have gone from strength-to-strength, with more frequent, higher-quality services and continued patronage growth. Conversely, as highlighted in the Strategic Bus Review, many rural services serving local towns and villages have struggled, operating more infrequently with indirect routes, with both patronage and financial support declining.

11.83 The Combined Authority, reflecting the recommendations of the Strategic Bus Review, will work with operators to place inter-urban bus services, combined with local rail services, at the centre of an integrated rural public transport network. Rural bus services will be designed to serve corridors of recognised bulk demand at attractive frequencies, with local fixed or flexible bus and demand-responsive transport feeding into these services at identified hubs. This will include:

- a set of 'core' inter-urban routes between cities and large towns, where links are not provided by the rail network (for example, this could include the Norwich – Wisbech – Peterborough and Cambridge – Cambourne – St Neots corridor;
- a set of 'local' rural routes, with a sustainable but attractive and consistent frequency, linking larger market towns and some smaller towns (for example, this could include Cambridge – Linton – Haverhill and March – Chatteris – Sutton – Ely); and
- bus services integrated with local rail (and, in the longer-term, Cambridgeshire Autonomous Metro (CAM)) services, seeking to complement them by providing links not served by rail with high-quality services, rather than competing where no additional benefit is added.

11.84 These services will be designed to provide the backbone of the rural public transport network, which would be integrated with demand-responsive and community-led services at connecting rural travel hubs in large villages and towns, as discussed below. These hubs would include waiting facilities, real-time information provision, and / or cycle and car parking, would be designed to create recognisable gateways to the rural transport network that help to attract patronage.

**Figure 11.1: Illustrative bus network concept**




Source: Cambridgeshire and Peterborough Strategic Bus Review: Options Report (January 2019)

11.85 The Combined Authority will work with bus operators to ensure that these 'core' and 'local' bus routes best serve their communities en route and meet the needs of local people. In particular, we will:

- work with operators to ensure that services best serve corridors of high demand, connecting to the places that users wish to travel, and ensuring that interchanges (where required) take place in dedicated hubs between frequent or dedicated connecting services;
- support efforts to market and promote the bus network, and connecting public transport services (such as the approach taken in Lincolnshire, with their network of frequent 'InterConnect' inter-urban services integrated with connecting demand-responsive 'CallConnect'[140] services);
- consider the potential for localised bus priority measures (such as junction and signal priority) for such services to improve journey times and reliability;
- continue to improve information provision, service quality and reliability, and ensure provision of adequate bus stop infrastructure across all routes; and
- support dedicated provision for 'core' services in bus stations in our larger towns and cities (e.g. dedicated, clearly advertised stops).

11.86 Approximately 10% of services in Cambridgeshire and Peterborough currently operate with a subsidy from Cambridgeshire County Council or Peterborough City Council, raised via a levy by the Combined Authority. The subsidy provides the financial support required to ensure connectivity to some of our rural towns and villages.

11.87 The Combined Authority will work with local councils and bus operators to ensure that available funding is focused on services that best meet the needs of rural communities, and provide a comprehensive network. This will involve working with both Local Highway Authorities to develop a robust, transparent and evidence-based methodology for allocating subsidy, ensuring that the largest communities most in need of frequent, fixed bus links benefit from them.

*Policy 14.3: Support local community transport, fully integrated into the rural public transport network, for communities not served by the bus or rail network*

11.88 Everyone living within Cambridgeshire and Peterborough, irrespective of where they live, their level of mobility or whether they have access to a car, should be able to access the services and facilities they need to fully participate in the community. Ensuring that our rural public transport network provides access to opportunity for all and tackles social exclusion in our rural communities is therefore a key priority of the Combined Authority.

11.89 Traditional bus services are often not viable in our most rural villages and hamlets, and other types of public transport provision are more suitable, connecting into higher-volume bus and rail services for longer-distance journeys at transit hubs. The Combined Authority is keen to support communities to develop their own 'social infrastructure' solutions, to best meet local need. For example, demand-responsive solutions match transport service provision more closely to demand, allowing public and private transport to be provided more effectively at typically lower cost.

[140] See: **CallConnect** (Lincolnshire County Council)

11.90 Several types of demand-responsive transport services are currently in operation in Cambridgeshire and Peterborough:

- flexible 'Dial-a-Ride' minibus services, where individuals who live in an area with limited or no public transport are able to book a minibus that provides a door-to-door service. Dial-a-Ride services are predominately used by the elderly, although often there is no eligibility criteria except for an inability to make the journey in question by public transport; and
- community car schemes, where a door-to-door service is provided at low cost by voluntary drivers, booked through a coordinator, typically organised at a local level (e.g. a number of small villages).

11.91 Flexible 'Dial-a-Ride' services are available in each of the Local Planning Authority areas within Cambridgeshire and Peterborough except South Cambridgeshire, and provide a bookable, flexible service for those unable to access bus or rail services. The Combined Authority will work to ensure that such services form an integral part of the wider rural public transport network, by:

- supporting district councils, and the voluntary sector in providing such services, and exploring options to expand coverage to South Cambridgeshire to ensure provision for all Combined Authority residents, irrespective of location;
- improving the attractiveness, service coverage and availability of such services, so that DRT provides a high-quality service to passengers – and not simply the elderly – rather than being viewed simply a 'last resort' mode of transport for those who lack access to a car; and
- explore how services can be better integrated into the wider rural transport network, allowing rural residents to make longer-distance journeys to and from our larger towns and cities more easily, including:
  - how Demand Responsive Transport services can better connect with bus and rail corridors at dedicated rural travel hubs; and
  - how fares and ticketing for Demand Responsive Transport can be better integrated with bus and rail.

11.92 The Combined Authority will also continue to support community car schemes, supplementing the service provided by demand-responsive services. Community car schemes, organised locally by volunteers, provide invaluable transport links for those in rural communities, and the Combined Authority will continue to promote such services, support efforts to attract volunteers to operate them, and explore how they can better integrate within the wider rural public transport system. We will also work with our Local Highway and Planning Authority partners to identify 'gaps' in the coverage of community car schemes, and explore how coverage can expanded across a wider geography.

11.93 The Combined Authority will also support the continued development of the 'Total Transport' approach, in collaboration with Cambridgeshire County Council, to maximise the value-for-money of delivering the rural public transport network and ensure that funding can be best targeted to improving services. This refers to combining the organisation of DRT services with other road transport services, such as school transport. Pooling funding, trip planning and vehicles, such as using buses for school transport for demand-responsive services during the middle of the day, can provide a significantly more integrated, higher-quality transport service network at better value-for-money to the public purse.

11.94 We will continue to adopt and expand this approach while planning rural transport services, with savings reinvested in the wider transport network to provide the best service for passengers. This will include, for example, exploring how other forms of public transport subsidised by other government agencies (such as NHS non-emergency patient transport, currently commissioned by the Cambridgeshire and Peterborough CCG) can be integrated into the delivery of local DRT services to deliver greater operating efficiencies.

11.95 We will also explore the potential for new demand-responsive services currently being trialled in urban areas, such as ArrivaClick[141], Oxford 'PickMeUp'[142] or UberPool[143] which offer a shared mobility service commercially, to be introduced in our rural areas. The Combined Authority will work with those developing such services to better understand how they could support our aspirations for a more integrated, comprehensive transport network in our rural areas.

**Related policies**

11.96 Related policies can be found for rural rail services in policy theme 17 (Travelling by train), with plans for providing key links for some of our rural communities, providing high-quality connectivity to larger market towns, Peterborough, Cambridge and London.

[141] See: **ArrivaClick** (Arriva Buses, accessed 2019)

[142] See: **PickMeUp** (Oxford Bus Company, accessed 2019)

[143] See: **UberPool** (Uber, accessed 2019)

## Policy theme 15: Improving public transport in our towns and cities

**Overview**

11.97 Approximately 300,000 people live in the cities of Cambridge and Peterborough. Both cities act as major destinations for business and tourism and attract commuters from far afield, and hence rely on efficient, high-capacity transport connectivity for their success. Residents of these cities are less likely to own a car than other residents of the Combined Authority and, hence, are more likely to rely on public transport – to access vital jobs and services[144]. Reflecting the geographic extent of Cambridge and Peterborough, comprehensive, high-quality bus networks – together with good longer-distance rail services – are critical to providing an attractive, high-quality public transport system within our cities.

11.98 Both Peterborough and Cambridge have expansive urban bus networks and are well-served by the rail network for longer-distance journeys to the wider region, particularly to London and northwards along the East Coast Mainline. However, bus networks within both cities suffer from significant challenges which can limit their attractiveness to passengers, as highlighted in the Combined Authority's Strategic Bus Review[145]. These include poor journey time reliability, lengthy journey times, (perceived) high fares and a network coverage and frequency which does not always suit current travel patterns.

11.99 National transport policy explicitly identifies the need to "*create a transport network that works for users, wherever they live*"[146]. Our proposals aim to deliver a comprehensive, reliable, and safe to use public transport network within our cities, which connects people effectively to where they wish to travel with frequent, high-quality and affordable services, and acts as an attractive, viable alternative to the private car.

**Policy Summary**

11.100 Improved public transport within our towns and cities will help meet the expectations of residents, visitors and businesses, and ensure that our cities reach their economic potential. Our proposals focus upon transforming the coverage, frequency and reliability of our urban bus networks, supplemented and integrated with a new rapid transit network, Cambridgeshire Autonomous Metro (CAM), within Greater Cambridge, and improvements to rail services for longer-distance journeys to and within our cities.

11.101 Our policies reflect this, and will:

- support the continued development of urban bus networks by working in partnership with bus operators and Local Highway Authorities to improve service quality, reliability and frequency;
- deliver transformational mass transit within our cities to support growth and deliver a step-change in accessibility; and
- support measures to better manage demand for road space following the provision of high-quality public transport infrastructure.

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[144] 34% and 25% of households in Cambridge and Peterborough respectively do not have access to a car, compared to 19% across the Combined Authority as a whole. Source: **Car or Van Availability** (Office for National Statistics, 2011)

[145] Source: **Cambridgeshire and Peterborough Strategic Bus Review: Options Report** (Cambridgeshire & Peterborough Combined Authority 2019)

[146] Source: **Transport Investment Strategy** (Department for Transport, 2017)

11.102 It is acknowledged that delivering these significant improvements are likely to require increased financial support for public transport, which would need to be delivered through additional revenue funding. The Cambridgeshire and Peterborough Strategic Bus Review sets out potential funding sources, including additional support from the public sector, new revenue streams (such as workplace parking levies), a reduction in operating costs and / or better sharing of revenues from operators under new Enhanced Partnership arrangements. Securing such funding is essential to deliver our ambitions for transforming public transport in our cities, and ensuring that the transport network adequately delivers on wider objectives (such as ensuring social equity, improving air quality and supporting sustainable growth) to ensure the continued success of Cambridgeshire and Peterborough.

11.103 Improvements to public transport within our rural and market towns are discussed in policy theme 14 (Rural transport services); rail services between our cities, including new stations, is discussed in policy theme 17 (Travelling by train); and continued investment in more integrated, multi-modal transport hubs and interchanges is discussed in policy theme 13 (Delivering a seamless public transport system).

*Policy 15.1: Support the continued development of urban bus networks by working in partnership with bus operators and local authorities to improve service quality, reliability and frequency*

11.104 Buses form the backbone of Cambridgeshire and Peterborough's transport network, with over 30 million journeys per year within the Combined Authority area in 2016/17[147]. Buses are especially important for those who lack access to a car: 49% of journeys on local buses in 2016 were carried out by individuals without access to a private car[148]. The bus network connects these people to jobs, services and social opportunities, offering an attractive alternative to the car that also helps to reduce traffic congestion.

11.105 Urban bus networks within both Cambridge and Peterborough are extensive, including both 'conventional', guided, and Park & Ride services. However, as highlighted in the Combined Authority's Strategic Bus Review[149], our bus networks suffer from significant challenges which can limit their attractiveness to passengers, amplified by recent declines in local financial support for local bus services. These challenges include:

- poor journey time reliability, particularly within Cambridge, as traffic congestion means it can be difficult to predict how long journeys will take;
- limited service frequencies on some routes, particularly at evenings and on weekends, which mean the network does not provide a 'turn-up-and-go' level of service required to provide an attractive alternative to the car;
- a network which does not always suit desired traffic patterns, such as adequately serving deprived communities, out-of-town employment locations or major development sites.

[147] Source: **Annual Bus Statistics – England** (Department for Transport, 2017)

[148] Source: *ibid.*

[149] Source: **Strategic Bus Review** (Cambridgeshire & Peterborough Combined Authority, 2019)

11.106 Our approach will be to work in partnership with both bus operators and Peterborough City Council, Cambridgeshire County Council, Cambridge City Council, all district Councils, and the Greater Cambridge Partnership to improve services, in line with the recommendations in the Strategic Bus Review.

11.107 These include working with operators to improve the frequency and coverage of the network, to help provide a consistent offer to passengers, better support economic activity at all times (e.g. industries with extended shift patterns), and provide a genuine alternative to the car for all but a small minority of car trips, so that residents of our cities do not feel that the private car forms the only option for their mobility. This includes:

- developing an Integrated Assessment Framework for the prioritisation and allocation of subsidy;
- working with bus operators to maximise the opportunity to enhance service frequencies to a 'turn up and go' level of service;
- reviewing levels of service at evenings and weekends, linked to service provision during the day;
- exploring options to improve network coverage, with particular respect to:
  - providing better cross-city links to major destinations outside city centres, reducing the need to interchange;
  - providing orbital routes that avoid city centres, where practical;
  - ensure that services are reconfigured, as appropriate, to serve new development sites and employment locations;
- supporting investment in bus priority measures and segregated public transport corridors to help reduce journey times, improve journey reliability, and hence improve the attractiveness of bus travel, including:
  - quality bus corridors, including bus lanes and separate segregated cycle facilities, removal of pavement parking and smart traffic control, such as currently being delivered by the Greater Cambridge Partnership on the Milton and Histon Road corridors;
  - dedicated, wholly segregated public transport corridors, including those currently being developed by the GCP linking Cambourne, Waterbeach New Town and Granta Park to Cambridge, which will be incorporated into the Cambridgeshire Autonomous Metro (CAM) network upon completion;
- supporting efforts by operators to improve the quality of services, such as cleaner buses with improved facilities such as wireless internet and plug sockets;
- supporting investment in waiting facilities, including bus stops with real-time bus information;
- specify, through bus operating models, the requirement for ultra-low emission hybrid and zero emission electric vehicles, to improve local air quality;
- seek funding from central Government sources e.g. Ultra-low emission bus scheme, to help buy ultra-low emission buses and the infrastructure needed to support them; and
- support establishment of a 'Clean Air Zone' within Cambridge and/or Peterborough City Centre, if pursued by local councils.

11.108 First and foremost, our aim is to support the highest possible frequency of service with fast, reliable journey times, with a simple, intuitive network that provides good direct links while presenting good opportunities to interchange between high-frequency services. It should seek to avoid overly complex routings, and prioritising service coverage (e.g. providing many indirect, infrequent services which appear to 'cover the map' with bus routes) over attractiveness.

*A future delivery model for our bus network*

11.109 Cambridgeshire and Peterborough require a model for delivering bus services which facilitates radical enhancements to service frequency, coverage and quality. The Strategic Bus Review, however, highlights that the existing model of deregulated, commercial operation, combined with a network of supported services, faces significant challenges in being able to support the delivery of these enhancements and our vision for the network.

11.110 The Combined Authority, in line with the recommendations of the Strategic Bus Review, is therefore beginning engagement with local operators on how to improve service provision through 'Enhanced Partnerships'. Subject to successful engagement with operators, and mutual agreement on a future vision for the network, this would allow the delivery of minimum standards for service quality, vehicles and ticketing, together with new minimum levels of service and a comprehensive network geography.

11.111 If high-quality Enhanced Partnerships could not successfully be negotiated with operators, the Combined Authority will explore alternative franchising options for the bus network, allowing them to directly control routes, services and fares, in line with the requirements under the Bus Services Act 2017.

*Policy 15.2: Deliver transformational mass transit within our cities to support growth and deliver a step-change in accessibility*

11.112 Extensive growth in Cambridge in particular, combined with the historic constraints of the city's transport network, mean that improvements to the bus network will be insufficient to deliver the integrated, world-class public transport network required to support further growth and meet the expectations of residents and businesses. Simply, Cambridge's streets are too constrained to accommodate the significant increase in bus services required to both meet future forecast demand, and facilitate modal shift away from the private car, even with significant demand management within the city.

11.113 The Combined Authority will, therefore, continue to develop proposals for a mass transit network – the Cambridgeshire Autonomous Metro (CAM). This would include approximately 12km of tunnelling under Central Cambridge to provide a wholly segregated route for new CAM services, to:

- guarantee reliable services, unaffected by traffic congestion;
- facilitate faster significantly journey times, particularly for 'cross-city' journeys such as Cambourne to the Cambridge Biomedical Campus, by avoiding the need to interchange; and
- provide a step-change in transport capacity and accessibility required to support growth.

*Cambridgeshire Autonomous Metro (CAM)*

11.114 CAM will link key destinations in Cambridge, such as the Cambridge Biomedical Campus, City Centre and Northern Fringe, to each other and key corridors from the city, including to St Ives, Cambourne, Waterbeach, Trumpington, Haverhill (via Granta Park) and Mildenhall. It is envisaged to operate with bespoke, electric vehicles, which can operate on existing busway corridors and future segregated public transport links without the need for steel rails. It will be largely segregated from traffic – achieved in the city centre through tunnelling – with dedicated stops and real-time information, to offer a world-leading user experience attractive to car users.

11.115 CAM will help to create a high-quality, high-frequency, reliable network which meets and exceeds the expectations of residents, businesses and residents. It will be seamlessly integrated into the surrounding bus, Park & Ride, and rail network to ensure that the benefits of the system are maximised. This is outlined further in policy theme 13 (Delivering a seamless transport system).

11.116 Peterborough City Council are leading a feasibility study of mass transit and supporting travel hub along radial corridors to better connect new and existing residential to key employments sites, services, such as the hospital, amenities and possible new Park & Ride hubs. The study will look into the future growth in travel demand and what the potential would be to transfer these journeys onto mass rapid transit. It will look at what new transport corridors are needed in order to connect new developments to other key centres and the opportunities and constraints involved.

*Policy 15.3: Support measures to better manage demand for road space following the provision of high-quality public transport infrastructure*

11.117 Improving public transport in our cities, together with delivering an effective highway network and attractive, liveable cities, rely on the effective management of traffic congestion. High levels of traffic congestion – particularly in and around our cities – act to:

- worsen air quality, and create the impression of traffic-dominated streets which reduce the attractiveness of our cities as places to live and work;
- lengthen journey times and worsen reliability for bus services, undermining the attractiveness of the bus network and making it more expensive to operate services;
- lengthen journey times for essential highway trips and imposing additional costs on businesses, such as delivery firms, which reduces the region's productivity; and
- deter people from walking and cycling.

11.118 The Combined Authority will work with local councils and the Greater Cambridge Partnership to tackle congestion in our cities, in order to improve the attractiveness of the public transport network and create more pleasant, liveable cities to live and work. Our proposals to transform public transport – as set out throughout this document – will create an attractive alternative to the car, delivering modal shift which reduces pressure on the highway network in our cities.

11.119 Providing high-quality alternatives to the car may not, however, reduce congestion sufficiently to create the liveable streets that make our cities great places to live. Once plans are fully developed to transform public transport in our cities through an enhanced bus and rail network, together with new CAM services, we will further explore additional measures to manage highway demand if required.

11.120 These could include, subject to engagement with local councils, measures such as controlled parking zones, a workplace parking levy, or a 'pollution' or 'congestion' charge. These measures would help to tackle congestion, improve air quality and make the most effective use of road space, helping to facilitate the improved public transport, walking and cycling infrastructure outlined elsewhere in the Local Transport Plan, but would only be delivered where required and where public transport alternatives are in place.

11.121 These measures would be developed in partnership with Local Highway and Planning Authorities and the Greater Cambridge Partnership, and be subject to detailed further study – such as the Choices for Better Journeys study, currently being developed by the Greater Cambridge Partnership. This study has identified a number of potential measures to assist in tackling congestion, including:

- more widespread traffic management, including restricting access for cars to specific roads or areas at busy times and/or charging motor vehicles to drive into and around Cambridge at peak times;
- parking controls, for example reducing parking availability or increasing charges;
- a workplace parking levy; and
- a "pollution charge".

11.122 Before any of these options can be introduced, it will be important that an improved public transport system in place so people have alternative options. The measures above could be used independently or in combination, and all examples given are for illustrative purposes only at this time.

11.123 We will work with the Greater Cambridge Partnership to help develop and deliver the Choices for Better Journeys programme within Cambridge, and will work with Peterborough City Council regarding a similar package if required and supported by local stakeholders.

## Policy theme 16: Travelling by coach

### Overview

*Filling a distance and affordability gap*

11.124 Coaches play an important role in enabling people to access the Combined Authority area for tourism and leisure, and to reach other parts of the UK. They are an affordable mode of travel, can be efficient for some group travel, such as school trips, and provide an alternative to medium and long-distance trips where direct rail links are unavailable, such as between Peterborough and Northampton, or Cambridge and Oxford. To make travelling by coach an attractive option and to enhance local, national and international connectivity (via airports), it is important that coaches within the Combined Authority area are able to:

- operate efficiently, with sufficient stop facilities provided in appropriate locations (for example at dedicated terminals, in city centres and close to attractions); and
- be integrated into the wider public transport and street networks.

11.125 Broad categories of coach services operating in the Combined Authority area are described in Table 11.1.

**Table 11.1: Categories of coach services[150]**

| Type | Definition | Typical examples | Passenger profile |
|---|---|---|---|
| Regular services | Services that provide for the transport of passengers at specific times along specified routes, with passengers being picked up and set down at predetermined stopping points. | Regular, scheduled services open to all passengers, provided by companies such as National Express, Stagecoach and Megabus. | Typically, young adults and students, looking for an affordable alternative to rail or the private car. |
| Special regular services | Services that provide for the transport of specified categories of passengers (to the exclusion of other passengers) at specified times along specified routes, with passengers being picked up and set down at predetermined stopping points. | Regular, scheduled services not open to all passengers, such as:<br>• school services serving only those attending a school; and<br>• staff services serving only those working at a location. | Typically, school-age children and working professionals. |
| Occasional services | All other services, the main characteristic of which is the transport of groups of passengers by a coach provider or tour operator. | Single or multi-day visit/tour requested by a customer or offered by an operator. | Typically, older and retired travellers looking to spend time on recreational and leisure activities. |

[150] Source: Derived from Table 2.1, Comprehensive Study on Passenger Transport by Coach in Europe (Steer, on behalf of the European Commission, 2016)

11.126 Coaches are a flexible transport mode and, unlike trains and aircraft, are broadly able to pick up and set down passengers anywhere with minimal provision of fixed infrastructure. Some regular services make use of on-street stops to provide a range of pick-up and set-down points.

*Services and demand*

11.127 Cambridge and Peterborough are important destinations for scheduled coach services. Both cities have regular, scheduled coach connections with London and Stansted Airport, while Cambridge also has regular services to the airports at Gatwick and Heathrow. These services typically serve Peterborough Queensgate Bus Station, Drummer St Bus Station in Cambridge, Cambridge Parkside (on Parker's Piece) or the Park & Ride sites on the outskirts of the city. These locations do not currently provide the breadth or quality of facilities that might be expected by coach passengers and drivers, including refreshment outlets, driver facilities and rest rooms. While the provision of coach services is solely within the control of the operators, the Combined Authority can play a role in improving the attractiveness of travelling by coach and in encouraging new approaches such as crowdsourced 'on-demand' services.

11.128 Cambridge, Peterborough, Ely, Newmarket and the Imperial War Museum at Duxford are all significant destinations for occasional coach services, which benefit the visitor economy but require coach parking and driver break facilities to be available near stopping points. In future, coach travel has the potential to bring tourism benefits to areas of the Combined Authority less accessible by public transport, including Fenland. The Combined Authority will work with Local Highway and Planning Authorities and coach operators to provide the necessary space and facilities to accommodate existing and proposed regular and occasional coach services.

**Policy Summary**

11.129 The policies to support coach travel to and from the Combined Authority area aim to:

- provide sufficient space and appropriate infrastructure for picking-up and setting-down passengers; and
- integrate coach services with wider public transport and highway networks.

*Policy 16.1: Providing sufficient space and appropriate infrastructure for coach services*

11.130 The Combined Authority will:

- continue to work with Local Highway and Planning Authorities and the coach industry to enable the provision of adequate on-street and off-street coach infrastructure, plus designated driver facilities, in appropriate locations for regular and occasional coach services, and to allow for their safe and efficient operation; and
- engage with disabled user groups, including people with limiting long-term illness, impairment or reduced mobility[151] (PRM), to understand how coach provision could be improved to serve their safety and wider needs.

[151] In the UK, the Public Service Vehicles Accessibility Requirements (PSVAR) 2000 requires that new vehicles carrying 22 passengers or more have facilities such as low floor boarding devices, space for wheelchair users, highlighting of steps, handrails for visually impaired people and priority seating.

*Policy 16.2: Integrating coach services with wider public transport and highway networks*

11.131 The Combined Authority will:

- investigate options to integrate coach services with local bus services, Park & Ride sites and proposed future transport provision such as the Cambridgeshire Autonomous Metro;
- work with the two Local Highway Authorities to ensure that there is clear and suitable signage along the preferred route(s) to the area's key destinations and attractions;
- encourage coordination between businesses that are interested in providing special regular services for their employees; and
- encourage coach operators to investigate the potential for 'on-demand' coach services through crowdsourcing platforms or similar technology-based approaches.

## Policy theme 17: Travelling by train

### Overview

11.132 Cambridgeshire and Peterborough benefit from twenty railway stations, with services stretching across our region and to the rest of the country. Both Cambridge and Peterborough respectively form major rail hubs, with 11.5 and 4.9 million trips to and from each station annually, representing more than 60% of total rail demand.

11.133 Peterborough benefits from excellent strategic connectivity to London, Yorkshire and the North East of England, as well as cross-country links, and Cambridge from a non-stop service to London, rural links to Suffolk and Norfolk, together with a local commuter rail network. New Thameslink services, linking Cambridge and Peterborough directly to the City of London, Gatwick Airport and Brighton, have recently commenced, and new trains are gradually being introduced across much of the network.

11.134 Our plans for the rail network will help to alleviate the constraints in the network, providing improved services for passengers. Track capacity and layouts at Ely currently act as a key constraint on services that operate across our network, and improving the complex junctions to the north of the city will help us operate more trains across the Combined Authority area. Cambridge Biomedical Campus, despite being directly adjacent to a rail line, requires a new station to be better accessible by rail. The Department for Transport are currently leading a piece of work to deliver a station at the Campus.

11.135 Services between Cambridge and Newmarket – a key commuting corridor – also cannot be increased without additional infrastructure, and journey times between our two cities are currently slow, and uncompetitive with car. Our planned improvements, including longer, more frequent trains, faster journey times and better ticketing, will deliver a more integrated, easy-to-use rail network, helping us to create a more attractive rail network which meets the expectations of passengers and supports Cambridgeshire and Peterborough's growth.

### Policy Summary

11.136 Rail services provide key links for commuters, businesses and leisure passengers, and our plans will help to improve rail services for passengers, and reduce congestion on our highway network. Our policies will therefore:

- support measures to deliver a more reliable, integrated, passenger-friendly rail network;
- facilitate improvements to stations to improve the experience of travelling by train;
- explore options to expand the rail network to link to new settlements, corridors and growth areas; and
- support frequency and journey time enhancements on our rural and intercity rail links to improve connectivity and capacity.

11.137 Additional detail on our proposals to improve ticketing, and make rail travel more affordable in conjunction with other transport modes, are detailed under Policy Theme Transport Pricing and Affordability.

*Policy 17.1: Support measures to deliver a more reliable, integrated, passenger-friendly rail network*

11.138 Ensuring that our rail network is reliable, integrated and easy-to-use is essential for providing the high-quality public transport network that residents, businesses and visitors expect. Travellers should be able to access their station, buy a ticket and catch their train with ease, with rail services operating at 'clockface' intervals with reliable connections between them. The Combined Authority will therefore work with operators, Local Highway and Planning Authorities, Sub-National Transport Bodies and the wider rail industry, to ensure that:

- there is enough support for, and influence over, long-term planning and franchising, including service provision, frequency, comfort and facilities;
- services operate to a reliable timetable, so that passengers can plan and predict their journeys without worrying about whether about whether their train will be on time. This will involve working with the rail industry to:
  - prioritise investment in maintenance and renewals of our track, signals and infrastructure to reduce faults and delays;
  - ensure that rail operators have sufficient staff, and trains, to operate the timetable reliably; and
  - continue to invest in schemes which improve capacity and reduce congestion, such as at Ely North Junction.
- services operate at regular 'clockface' intervals, so that passengers can easily learn their train times and do not have to consult a timetable prior to travelling;
- passengers are able to easily buy a ticket for their journey and feel confident to choose which ticket best suits the requirements for their journey;
- accurate real-time information of services is readily available, both online and at the station, particularly during times of disruption;
- connections between services, and especially between operators, are well-planned to best avoid the need for extended waits while interchanging between services; and
- trains have sufficient space to carry bicycles outside of peak hours, and do not require pre-booking to travel.

*Policy 17.2: Facilitate improvements to our rail stations to improve the experience of travelling by train*

11.139 Ensuring that rail stations act as attractive 'gateways', both to the rail network and the communities they serve, is key to encouraging people to travel by train, and presenting a positive image of our towns and cities. Stations should have modern facilities for their size, such as waiting rooms, toilets and ticket offices, and be easy to navigate, clean and well-maintained throughout. Stations should be accessible for all users, including those with a limiting long-term illness, impairment or disability, and connect to bike and public transport networks, with secure cycle storage and appropriate interchange and car parking facilities.

11.140 While most passengers are satisfied with the station at which they start and end their journey – research by Transport Focus indicates that 87% and 85% of passengers at Cambridge and Peterborough respectively are satisfied with travelling through them[152] – some of our stations do not meet the expectations of passengers, particularly in rural areas and in Fenland.

[152] Source: **Best train stations according to passengers, revealed** (Transport Focus, 2018)

11.141 We will therefore continue to work with the Department for Transport and Network Rail to deliver enhancements to Fenland stations, including building refurbishments and improved waiting facilities at March and Manea. We will also continue to work with the Greater Cambridge Partnership to deliver improvements to rural stations in South Cambridgeshire, with better waiting, car and cycle parking and interchange facilities as part of the Rural Travel Hubs programme, as outlined in policy theme 14 (Rural transport services).

11.142 Peterborough in particular acts as key interchange for those travelling to and from the Combined Authority, providing onward connectivity to Leeds, Newcastle and Edinburgh on the East Coast, and to the Midlands, Sheffield and Manchester. We will work with Network Rail, and the station operator LNER, to explore opportunities to enhance Peterborough station so that it is fully fit-for-purpose. This could include supporting investment in multi-story parking provision to free up land for development, reinvesting the proceeds in the station and our rail network.

*Policy 17.3: Explore options to expand the rail network to link to new settlements, corridors and growth areas*

11.143 While our rail network is expansive, combining both intercity links to London and other major cities with cross-country and rural services, some areas of the Combined Authority lack good rail connectivity. Our plans will help ensure that our key settlements and employment areas are well-connected, enabling residents and businesses to easily travel by train.

11.144 More than 26,000 jobs will be located at the Cambridge Biomedical Campus by 2031, but despite an adjacent rail line, the Campus lacks direct rail access. Delivering rail access and a new station is required as soon as possible, to ensure the site is served sustainably and to mitigate negative impacts on the local road network. We will work with the Department for Transport, Network Rail and the Greater Cambridge Partnership to deliver a station at Cambridge South by the mid to late 2020s, with a possible interim solution being brought forward sooner. We will also work to ensure four-tracking of the line south of Cambridge station and a grade-separated junction at Shelford in the longer-term to provide sufficient future capacity for East-West Rail.

11.145 We will also seek to expand access to the rail network at major growth sites, together with smaller communities not currently served by the network. This will include:

- a new rail station at Soham (served by Ipswich to Peterborough services), reconnecting the town with the rail network;
- an upgraded, relocated station at Waterbeach (to better support development at Waterbeach), with provision for longer, eight to twelve coach platforms;
- investigating the potential for new travel hubs at Alconbury Weald and Peterborough South to support future development, subject to value-for-money; and
- promoting a western gateway to Peterborough Station aligned to development to the west of the station.

11.146 Wisbech is one of the largest towns in the country without direct access to the railway network, with the nearest station – March – a twenty-minute drive away and difficult to access by bus. Direct rail services to the town would support future development, including the Wisbech Garden Town, and open up new employment opportunities for residents of Wisbech in Cambridge by rail. The Combined Authority is exploring how to better integrate

Wisbech into the rail network, including how a new service to March, Ely and Cambridge could support the town's future growth and prosperity.

11.147 The Oxford to Cambridge Arc, and wider England's Economic Heartland area is one of the most productive and dynamic regions in Europe, but travel across the arc is currently difficult to make by rail without an expensive and inconvenient route via Central London.

11.148 Major growth is planned along this corridor, reinforcing the need for improved connectivity along the Arc. The Combined Authority strongly supports the delivery of East West Rail along this corridor, including bringing forward proposals and delivery of the central (Bedford to Cambridge) and eastern (Cambridge to Norwich/Ipswich and beyond) sections at the earliest possible opportunities. We will continue to work with the East West Rail Company, Central Government, Local Highway and Planning Authorities, Local Enterprise Partnerships, and two emerging Sub-National Transport Bodies - England's Economic Heartland and Transport East to ensure that the aspirations for this corridor are realised.

*Policy 17.4: Support frequency and journey time enhancements on our rural and intercity rail links to improve connectivity and capacity*

11.149 Ensuring rail links operate to a sufficiently regular frequency is key to ensuring that the rail network is attractive to passengers and provides sufficient capacity to cater for travel demand. Infrequent services deter the use of rail, especially compared to travelling by car, as passengers are forced to waste time waiting for their service or plan their day around specific rail services.

11.150 While many of our rail services, particularly to London from Cambridge and Peterborough, operate at attractive frequencies of half-hourly or better, many key links between our cities and market towns, and rural links to Suffolk and Norfolk, operate hourly or less. Some services, particularly on key commuter routes into and out of Cambridge in the peak, and to London, suffer from overcrowding, which deters people from travelling by train and does not provide the quality of travel that passengers expect.

11.151 The Combined Authority will therefore work with operators, Network Rail and the Department for Transport to increase the frequency of our key regional rail links to half-hourly or better[153], improving connectivity and providing more seats. This will include the following routes:

- *Peterborough to Cambridge (and Stansted)* – increasing the frequency and capacity of the essential link between our two cities, and our key international gateway at Stansted, is a top priority. We will explore the potential to increase the frequency of the existing CrossCountry service to Birmingham, or deliver a new service, to enhance connectivity.
- *Norwich to Cambridge (and Stansted)* – services between Norfolk and Cambridge will be extended to Stansted Airport in 2019, which will increase the frequency between Cambridge and Stansted to two trains per hour. We will also explore how the frequency of links to Norfolk, the city of Norwich, and to Stansted Airport, can be enhanced further.
- *Cambridge to Ipswich* – increasing the frequency between these two important centres, and in particular providing a more frequent service at Newmarket to improve capacity and connectivity, is key.

[153] For longer-distance journeys of more than 90 minutes in duration, such from Peterborough to Leeds, Newcastle and Edinburgh, an hourly frequency is sufficiently attractive since passengers typically do not make such journeys on a 'turn-up-and-go' basis.

- *Peterborough to Ipswich* – under the Greater Anglia franchise this service, which provides an important link to the important rail hub of Peterborough, will be increased in frequency to hourly. We will explore how the frequency can be increased further.
- *Kings Lynn to Ely, Cambridge and London* – under the Greater Northern franchise this service, which provides a key link from East Cambridgeshire and West Norfolk to Cambridge and London, will be increased in frequency to half-hourly, dependent on infrastructure improvements. We will ensure that these improvements are prioritised by Network Rail to benefit passengers as quickly as possible.

11.152 Many of these improvements rely on an upgrade to Ely North Junction as part of the Ely Area Capacity Enhancement scheme, currently being led by Network Rail. We will support this upgrade, working with Network Rail to develop scheme options which maximise the opportunities to operate more services between destinations in the Combined Authority and elsewhere. Where additional capacity is required that cannot be delivered by increasing the frequency of trains, we will work with the rail industry to lengthen trains to provide sufficient space for passengers.

11.153 The Combined Authority will also continue to explore opportunities to reduce journey times on key rail routes. Greater frequencies can facilitate an improved balance between fast and stopping services, helping to deliver fast journey times between our largest cities while maintaining local connectivity. In particular, we will focus on journeys:

- between Cambridge and Peterborough, where the hourly service takes 49 minutes to cover 40 miles, an average speed of less than 50 mph and uncompetitive with private car; and
- between Peterborough and London, where there is a long-term goal for journey times of less than 40 minutes to support the city's growth agenda.

11.154 Some areas, such as within Fenland, also lack services in the early morning and at late evenings, which are vital to ensuring shift workers can access employment elsewhere and for supporting the night-time economy. The Combined Authority, in collaboration with Cambridgeshire County and Fenland District Council, will therefore lobby for better service provision at the start and end of the day, together with more services to stop at Cambridge North to improve access to employment at the Cambridge Science Park.

Ensuring that residents and businesses are aware of the opportunities to travel by rail, and the wide range of services that are available, is an integral part of increasing rail patronage. The Combined Authority will therefore work with local communities and the wider rail industry to promote our rail services, and in particular the opportunities for multi-modal travel.

## Policy theme 18: The local road network

**Overview**

*Managing the network*

11.155 Having an effective local road network is important for the efficient and reliable movement of people and goods across our region – not just for cars but for all road users, including pedestrians and cyclists. It is important, therefore, to our economy, and an efficient network can also support stronger and more inclusive communities, positive health and wellbeing outcomes, and help minimise the negative impacts of transport and travel on the environment. This is impeded when there is disruption or congestion on the road network – affecting us all through longer and less reliable journey times, reduced road safety, severance in our communities, worsened air quality, increased carbon emissions, and negative local environmental impacts. Congestion can make us miss a hospital appointment, be late for a job interview or work, make running a business more difficult, or act as a disincentive to an investor who is looking to expand or locate in the local area.

11.156 Traffic levels are increasing everywhere in the country, but the rate of increase is higher in Cambridgeshire and Peterborough[154]. These pressures are most acute in and around Cambridge and in the south of Cambridgeshire in its market towns. To reduce congestion, many trips could be removed from the roads by several means – reducing the need for people to travel; encouraging people to travel more sustainably or by shifting road freight onto rail, where possible; or even re-routing or re-timing journeys to where and when there is spare capacity in the network.

11.157 Our two Local Highway Authorities, Cambridgeshire County Council and Peterborough City Council, have responsibility for "securing the expeditious movement of traffic on the authority's road network" under the Traffic Management Act 2004. The Local Highway Authorities must secure "more efficient use of their road network" or "the avoidance, elimination or reduction of road congestion or other disruption to the movement of traffic on their road network…".

*Ensuring our local roads are safe*

11.158 As part of Local Government's approach to "expeditious movement" safety must be at the core. Our policy for safety is in policy theme 5.1 (Safety for all – a safe systems approach) – in addition to engineering interventions at specific sites, a risk-based approach assessing and identifying options to manage risks along a corridor will be taken, supported by road safety education, training and promotion.

[154] Source: **Motor Vehicle traffic (vehicle miles) by local authority in Great Britain**, (Department for Transport, 2019)

*Maintaining the network*

11.159 Alongside approximately 400 kilometres of Motorway and A Road network managed by Highways England as part of the national Strategic Road Network (A11, M11, A1(M), A14, A428 and A47), in Cambridgeshire there are:

- 426 kilometres of A roads
- 581 kilometres of B roads
- 1,115 kilometres of C roads
- 2,263 kilometres of unclassified roads
- 25 kilometres of bus ways
- 3,243 kilometres of Rights of Way
- 1,372 bridges and structures
- 52,800 street lights and 380 traffic signals

11.160 In Peterborough, alongside approximately 80 kilometres of Motorway and A Road network managed by Highways England (A1(M) and A47), there are:

- 122 kilometres of A roads
- 56 kilometres of B roads
- 203 kilometres of C roads
- 550 kilometres of unclassified roads
- 2 kilometres of bus ways
- 450 kilometres of on and off-road cycle routes
- 259 kilometres of Rights of Way
- 360 bridges and structures
- 26,000 street lights and 120 traffic signals

11.161 This local road network and wider portfolio of assets requires maintenance. Maintenance includes the general and winter maintenance of road surfaces, as well as maintenance of structures, signage, lighting, and maintenance and clearance of drainage, gullies and verges. Each Local Highway Authority has its own approaches to maintenance. The Combined Authority will work with both Local Highway Authorities – Peterborough City Council and Cambridgeshire County Council – as well as with Highways England, to continue to ensure a comprehensive and co-ordinated approach to managing the local road network.

11.162 Part of the responsibility of Local Highway Authorities is the co-ordination of road and street works. Overrunning or poor planned works can result in congestion and frustration of residents, workers, businesses, and visitors alike. As well as aligning highway maintenance policies and guideline, approaches to road and street work management will also be aligned. Similarly, for events, both planned and unplanned, an aligned set of guidelines will be supported.

*A Key Road Network*

11.163 As part of the powers devolved to the Cambridgeshire & Peterborough Combined Authority, there is a responsibility to identify a Key Road Network. This is the network of primary roads that together with the Strategic Road Network of motorways and A roads listed above, form the road-based 'arteries' of the region. They are the routes that have the highest traffic flows, that are most important for businesses and the economy, and for which safety and maintenance are the highest priority.

11.164 The funding for highway maintenance is transferred from Central Government to the Combined Authority. In agreement with the two Local Highway Authorities, and through engagement with other key stakeholders, the funding will be 'top-sliced' to prioritise investment for maintenance and road safety in the Key Road Network. Many parts of the proposed Key Road Network serve as both key inter-urban routes as well as part of the local network for providing shorter distance and, particularly, rural journeys. Beyond the top slicing of highway maintenance budgets for the key road network, rural road safety is a high priority for the Combined Authority.

11.165 In parallel, Combined Authorities and Local Transport and Highway Authorities across the country have been asked by the Department for Transport and Highways England to identify a Major Road Network. The aim of which is to appreciate that there are parts pf the local road network which provide a more strategic function in terms of capacity, traffic levels, importance of locations served, and the role of local roads in providing resilience, working with the Local Resilience Forum[155], for when there is disruption or severe congestion on the Strategic Road Network. In order to not duplicate work, identification of and consultation on both the Key Road Network and Major Road Network will happen in parallel, with an aim to identify the same roads for each.

**Policy Summary**

11.166 The Combined Authority will support Local Highway Authority partners in:

- identifying a Key Road Network;
- promoting more efficient use of the existing network; and
- aligning approaches.

*Policy 18.1: Identifying a Key Road Network*

11.167 The Combined Authority will consult with Local Highway Authority partners and Highways England on its requirement to develop proposals for a Key Road Network and the management and maintenance of the region's most important local roads.

*Policy 18.2: Promoting more efficient use of the existing road network*

11.168 The Combined Authority will support Local Highway Authority partners to:

- reduce the need to travel and support the use of additional demand management measures to reduce the number of vehicles, particularly single (or zero) occupancy vehicles on our roads, where sustainable alternatives exist. This could be through parking restraint, the reallocation of road space to non-car modes and physical restraint, enforcement, or new mechanisms such as charging or levies;
- promote the use of more sustainable modes of transport, including powered two-wheelers (e.g. motorbikes and motor-scooters), through new infrastructure; improving the quality of existing infrastructure and the improved integration of services; and through education, training, and promotions;
- use Intelligent Mobility solutions to actively manage traffic and make more efficient use of existing assets and services, through connected signals and travel information (see policy theme 6.4 (The future of mobility));
- encourage the use of rail freight instead of road freight (see policy theme 3.4 (Freight)).

[155] See: **Cambridgeshire and Peterborough Local Resilience Forum**

*Policy 18.3: Aligning approaches to management and maintenance*

The Combined Authority will work with Local Highway Authority partners and the Department for Transport and Highways England to continue to ensure a comprehensive and co-ordinated approach to managing the local road network; securing additional funding; and working towards an aligned and single set of policies, guidelines and approaches to highway maintenance and transport asset management as well as network management duties.

## Policy theme 19: Parking

### Overview

*Parking and the transport network – balancing the supply and demand for parking*

11.169 Every journey made using a vehicle or by bicycle starts and ends with a parking space, be it in a designated public or private space, 'bay' or 'rack' or an informal location. Parking is an important part of our transport network. Being able to travel easily to key locations is a fundamental part of our society and quality of life, and for many of our journeys, this requires parking. Put another way, by providing parking of different types, for different forms of transport – car, motorcycle, bicycle – travel by those forms or 'modes' is incentivised.

11.170 Different parking locations near each other also work as a network, where people using parking facilities have a choice. This may be based on a range of factors including local knowledge and preference, signage and location, price, and availability. These factors might, for example, influence whether we choose to use town or city centre parking, rather than edge of centre parking, or even Park & Ride facilities where they are available. By disincentivising parking by amending the number of spaces, their location and price, and ensuring that alternative modes of transport are available, more sustainable travel patterns can be achieved. This can help reduce congestion, improve air quality, reduce carbon emissions, and at the same time be affordable and provide good access to key services and amenities. Reducing parking demand also provides an opportunity in terms of creating more space for improved public realm and other development opportunities.

*Parking as a land use and alternative land uses*

11.171 Given the number of journeys made each day, particularly journeys made using cars and commercial vehicles, the space in our communities given to parking is considerable. Parking is a major land use. In our cities where land available for development is scarce, it is also a land use that has competing demands. Cars are typically parked for 96 percent of the day[156]. Whilst useful for those who have driven, the land use is relatively 'inert'. Finding suitable locations for development, be it housing, commercial space, or more mixed-use development, needs to be balanced with the existing demand for parking and the future demand the development will generate.

11.172 With an innovative approach to parking, with more efficient management of existing assets and careful planning of new parking facilities, parking provision could be reduced and land otherwise used for this purpose allocated to a wider range of valuable, productive purposes which would create safer, healthier, greener and more economically vibrant communities.

*The cost of parking*

11.173 Parking provision has costs – the cost of purchasing land and construction. Construction costs per space are highest where parking is built underground, followed by above ground multi-storey parking. However, these options may reduce the amount of land that is required. Surface parking is least expensive to construct, but may require more land to be acquired like-for-like. Parking is also a land use and amenity that needs maintaining, and parking systems

[156] Source: **Spaced out: perspectives on parking policy** (RAC Foundation, 2012)

have operating costs for their day-to-day management – for example for security, permitting and enforcement, lighting, drainage, and cleaning.

11.174 As such, parking is often charged for to cover the capital costs of construction and maintenance as well as its operating costs. As we become increasingly aware of some of the more negative impacts of driving, particularly from the impacts of congestion and from using conventionally fuelled vehicles, charges for parking are being levied further to cover the wider economic, social and environmental costs.

11.175 In short, is parking paying its way and performing how it should? We will work with partners to manage the supply and demand for parking through optimising the supply, location, and pricing of parking to provide access to key locations. We will also work with partners such as hospitals and other key employment sites to manage demand by encouraging ride sharing. We will also to address the negative impacts of parking such as congestion, impacts on air quality, and the opportunity cost of parking not being used for alternative land uses. If demand is going to be managed downwards, for example through Residents Parking Schemes, then other forms of transport will be supported to provide accessible and affordable alternatives.

*Parking design and standards*

11.176 The amount of parking provided within developments is controlled by Local Planning Authorities' parking standards. Parking standards typically consider the maximum and minimum amount of parking that should be provided per new house or apartment, or unit of other land uses (e.g. office, hotel, restaurant, light industrial estate). It should also be noted that some Local Planning Authority policy recognises that in some cases there may be opportunities to lower parking below standards, where there are strong alternatives coupled with congestion challenges.

11.177 Parking standards also typically consider provision for different modes, including bicycles, powered two wheelers (e.g. motorbikes and motor-scooters), electric vehicles and type of charging point, and for people parking with limited mobility who hold Blue Badges. Minimum standards for the volume of parking provision for different non-car modes and user groups can be varied by the availability of alternatives. For example, more parking can be provided in rural areas or in areas where bus provision is infrequent or the range of destinations served is low.

11.178 We will promote parking standards that are right for the needs of our local communities, that promote a better quality of life in our communities, that encourage more sustainable travel behaviours, and that do not have adverse safety or operational impacts on other road users, particularly the emergency services, buses, and more vulnerable road users such as cyclists. We will also promote the use of electric and other ultra-low emission vehicles, through advocating lower tariffs in the short term, and through the provision of prioritised spaces with charging infrastructure. In the medium to long term, as the majority of vehicles become electric or ultra-low emission, it will not be possible to provide free or subsidised parking due to adverse cost, revenue and congestion impacts, and charging regimes will be reviewed to ensure parking provision continues to provide an efficient resource.

11.179 National policy for parking is contained within the National Planning Policy Framework[157], specifically with regards to the setting of parking standards. It states, "*If setting local parking standards for residential and non-residential development, policies should take into account:*

- *the accessibility of the development;*
- *the type, mix, and use of the development;*
- *the availability of and opportunities for public transport;*
- *local car ownership levels; and*
- *the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles."*

*11.180* And continues, *"Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport…. In town centres, local authorities should seek to improve the quality of parking so that it is convenient, safe and secure, alongside measures to promote accessibility for pedestrians and cyclists."*

*Governance – operation and enforcement*

11.181 The number of organisations that influence parking policy, provision and enforcement is complex:

- **Central government:** sets the National Planning Policy Framework.
- **Local Planning Authorities:** sets parking standards (i.e. permitted volumes of parking) and ultimately decides whether to consent to the amount of parking permissible; operates public off-street parking (which it might out-source to a third-party operator) and enforce off-street parking controls.
- **Developers:** assess the likely need and ultimately build parking provision.
- **Local Highway Authorities:** provide on-street parking controls and charging; often comments on parking as a statutory consultee; and can oversee Park & Ride provision.
- **Police:** largely responsible for on-street parking enforcement.
- **Greater Cambridge Partnership:** has identified requirements and new locations for travel hubs, particularly Park & Ride sites, in Cambridge and South Cambridgeshire.

11.182 Put another way, across Cambridgeshire and Peterborough parking is provided by multiple owners and operators:

- Off-street parking in car parks is often owned and operated by a combination of District and City Councils and private land owners and operators. Privately owned and operated parking can be publicly accessible or for private or commercial uses (e.g. workplace parking).
- Off-street parking at Park & Ride sites is provided by Cambridgeshire County Council.
- On-street parking is the responsibility of the two Local Highway Authorities – Cambridgeshire County Council and Peterborough City Council. The enforcement of parking restrictions for on-street parking is typically a responsibility of the Police, but Civil Parking Enforcement has been implemented by Cambridgeshire County Council (within

[157] Source: **National Planning Policy Framework** (Ministry of Housing, Communities & Local Government, 2018)

Cambridge in agreement with Cambridge City Council) and Peterborough City Council. It is not currently being pursued by any other parts of the Combined Authority area.

11.183 Parking charges are set by the operators of the parking. For publicly operated parking, whether on- or off-street, charges are contained within Traffic Regulation Orders, which must be consulted upon publicly and approved by their respective Councils. Payment methods vary from:

- Pay & Display: paying for a pre-determined period;
- Pay on Foot: paying for the amount of time parking is used;
- flat rate: a fixed rate for a longer period of time (e.g. £1.00 all day Sunday); and
- dynamic parking pricing: the ability to charge prices in a more dynamic way, more akin to the booking of hotel rooms or flights, in real-time and in response to demand levels, is being investigated.

11.184 Whilst Pay on Foot and dynamic parking pricing may better represent the usage and true costs of parking, they both require more advanced technological solutions and operating systems. The feasibility of dynamic parking charges is being investigated by some Local Planning Authorities in the UK and cities internationally, however, it is difficult to implement dynamic pricing within the current system and requirements of Traffic Regulation Orders.

*Parking technology and implications of disruptive technology*

11.185 In Peterborough and Cambridge, Variable Message Signs on key approach roads provide information on the availability of multi-storey parking in different locations, supported by a network of static, fixed signs. There is increasing uncertainty over the effectiveness of Variable Messaging Signs for city centre parking given the use of satellite / digital navigation systems. There may be a better way to encourage use of Park & Ride over city centre parking in Cambridge, for example; or for a resident in Wisbech to be able to compare options for travel to March which consider travel and parking prices and journey times between modes; or for a driver in Peterborough to be made aware of parking options between different off- and on-street locations and the availability of spaces (e.g. through sensors and a digital navigation system). To address these possibilities, we will explore the best ways to ensure our parking options are used most effectively.

11.186 As vehicles are manufactured with an ever-greater degree of automation, we will need to reconsider how parking is provided. Parking facilities that are provided, could be located on the edge of our towns and cities, rather than in city centres, for either: transfer to public transport and other shared mobility options; or for residents, workers and visitors who need to or who are willing to pay a premium to ‘be driven’ into our town and city centres and for their vehicle to drive itself to an edge of centre parking location to return to ‘pick up’ their passenger when required. In the second scenario, there could be many cars on our roads with no driver or passenger in at all. Any provision for autonomous vehicles will need to prevent against adding to congestion on our road network from such trips.

11.187 We will research attitudes to different modes of travel and parking location choices, and consider alternative signage and navigation systems, and different pricing and payment mechanisms. This will include working closely with Smart Cambridge and our programme of roll-out across Cambridgeshire and Peterborough, to consider how this might differ with the advance of autonomous vehicles.

**Policy Summary**

11.188 In short, the policies to support the optimised supply of parking and to manage the demand for parking across the region are:

- the design of parking;
- parking provision, standards and managing demand;
- parking enforcement; and
- parking technology and implications of disruptive technology.

*Policy 19.1: The design of parking*

11.189 The Combined Authority will:

- promote the ongoing provision of parking spaces for Blue Badge holders in safe and accessible locations in close proximity to key services and amenities, in line with minimum standards;
- promote parking design, working in partnership with local highway and planning authorities, that is safe, secure and considers the parking needs of all road users, including cyclists, motorcyclists, car drivers, coach operators, and Heavy and Light Commercial Vehicles operators and drivers;
- that promote a better quality of life in our communities, that encourage more sustainable travel behaviours; and that do not have adverse safety or operational impacts on other road users;
- support Local Planning Authority partners to promote maximums and minimum standards and supporting guidelines, in line with the National Planning Policy Framework, for different modes and complementary facilities, that ensure that all developers assess and make appropriate provision for the travel needs of development proposals taking into account:
  - the type, mix and use of development;
  - the accessibility and availability of existing public transport and safe walking and cycling infrastructure;
  - the opportunities for developers to provide improved safe walking and cycling infrastructure, and public transport infrastructure and subsidy;
  - the existing available parking provision close to the development site; and
  - predicted local car ownership levels.
- promote the use of electric and other ultra-low emission vehicles, through advocating lower tariffs in the short term, and through a requirement on developers to provide a minim standard of spaces with suitable charging infrastructure.

*Policy 19.2: Managing parking demand*

11.190 The Combined Authority will:

- work with Local Highway and Planning Authorities to seek to reduce the demand for parking, particularly in town and city centres, workplaces, healthcare sites and educational establishments, through the provision and promotion of more sustainable alternatives (including powered two-wheelers) and alternative pricing mechanisms;
- support Cambridgeshire County Council and the Greater Cambridge Partnership in the roll-out of its City Access Strategy in Cambridge and residential parking schemes, as requested by local residential communities; and
- work with Local Planning Authorities to rationalise off-street parking to support other, more productive land uses that provide employment or housing.

*Policy 19.3: Parking technology and implications of disruptive technology*

The Combined Authority will research attitudes to different modes of travel and choices of parking location, consider alternative navigation systems and pricing and payment mechanisms for parking, and develop a programme for technology investment aligned to the roll-out of the Smart Cambridge and Peterborough Smart City initiative.

## Policy theme 20: Making long-distance journeys by car

**Overview**

11.191 Whilst rail, bus and coach provide sustainable alternatives, travelling by car is an important mode for longer-distance journeys. Our highway network – in particular our key route network, together with routes managed nationally by Highways England – is a key means of enabling residents, businesses and visitors to travel across the Combined Authority.

11.192 The A14 and A1(M) link our two major cities of Cambridge and Peterborough; the A47 links Peterborough to the A1(M) to the West and Wisbech, and on to Norwich to the East; the A10 and A11 link Cambridge to Ely and East Cambridgeshire, and the A14 and A142 provide key links to the Fens from Ely, Wisbech and Huntingdon. These highway corridors provide key links not only between our towns and cities, but together with the M11, A1 and A505, provide essential access to the rest of the country and key international gateways, such as Stansted Airport, for our residents travelling by car, van, bus and coach.

11.193 Whilst much of our highway network supports fast, reliable and safe journeys by car, there are a number of 'pinch points' which constrain traffic flow, slowing journey times and worsening reliability. Key junctions such as the Milton Interchange in Cambridge, or the Wansford Roundabouts near Peterborough, and single-carriageway routes or sections of routes, such as the A47 and A10, suffer from severe peak-time congestion, lengthening journey times for long-distance journeys, reducing reliability, and contributing to poor air quality.

11.194 Future housing and employment growth, such as at Alconbury Weald and Waterbeach New Town, together with the future university precinct in Peterborough and growth at our ports and airports, will also place new pressures on the highway network. Without investment, additional traffic flows to and from new developments will result in worsening journey times and reliability.

11.195 In addition, there are disparities across the Combined Authority area in relation to major road access. The north of Cambridgeshire, including parts of the Fens, has more limited connectivity to the wider highway network. These areas already rank poorly within the Combined Authority on multiple measures of economic and social deprivation. The lack of connectivity acts to constrain growth and undermines the ability for residents to commute to employment opportunities elsewhere.

11.196 Better road links, complemented by public transport investment, will therefore help to make it easier for residents and visitors to make longer-distance journeys by car, alleviating congestion and supporting the region's economy.

**Policy Summary**

11.197 Our proposals for our highway network, working in partnership with the highway authorities of Cambridgeshire County Council, Peterborough City Council and Highways England, will seek to:

- improve our highway network to alleviate congestion, improve reliability and enhance our region's accessibility;
- develop new road corridors where required to support development and housing growth; and
- support improvements on regional and national corridors to improve accessibility to the rest of the UK and abroad.

11.198 Our policies for improving safety on the highway network are discussed in policy theme 5.1 (Safety for all – a safe systems approach), and for highway maintenance in policy theme 18 (The local road network). We will also continue to work to encourage modal shift away from longer-distance car journeys to rail where feasible, and our plans for the rail network to encourage such shift are outlined in policy theme 17 (Travelling by train).

*Policy 20.1: Improve our highway network to alleviate congestion, improve reliability and enhance our region's accessibility.*

11.199 Cambridgeshire and Peterborough require a highway network which provides the capacity, connectivity and resilience required to allow people to travel conveniently, quickly and safely by car, and supports efficient bus and coach services. Good long-distance connectivity, such as provided by the A14 and A1(M), is essential to allowing individuals and businesses to travel seamlessly across the Combined Authority area, together with the rest of the country. Our residents rely on highway connectivity, as well as our rail services, to see friends and family elsewhere, for travelling to work or for leisure, as well as businesses for access to customers, attending meetings or exporting their products. It is also key for freight movements, as detailed in policy theme 3.4 (Freight).

11.200 Whilst our highway network generally performs well, there are several key 'pinch points' on the network which suffer from limited capacity, with the resultant traffic congestion resulting in slow, unreliable journeys, particularly in peak periods, and contributing to poor air quality. Some key highway links remain predominately single-carriageway, despite their important strategic nature. Such routes disproportionately suffer from traffic congestion and a poor safety record, as vehicles of different speeds have limited opportunities to overtake one another and proceed at the speed of the 'slowest' vehicle, resulting in unpredictable journey times. Some areas – in particular the Fens – also lack efficient access to the wider highway network. Travel between Chatteris and March towards Cambridge, for example, is largely reliant on slow, single-carriageway routes.

11.201 The Combined Authority will continue to prioritise investment in our railways and bus services, as outlined in policy theme 13 (Delivering a seamless public transport system), policy theme 17 (Travelling by train) and policy theme 6.4 (The future of mobility), in order to alleviate congestion and deliver a viable alternative to the car. However, it is important to note that, in a rural region such as ours, this can never replace the need for efficient, high-quality long-distance highway links. Many journeys, particularly in our rural areas and outside our city centres, are well-suited to travel by road, and we will ensure that the highway network is of sufficient standard to support these trips.

*Key 'pinch points' and highway improvements*

11.202 The A14 between Cambridge and Huntingdon is currently one of the most congested routes not only in the Combined Authority area, but the entire country. It is currently being improved as part of a £1.5 billion upgrade, delivered through Highways England, which will widen the route to increase capacity, provide relief at key junctions, particularly to the east of Cambridge (J36-J38), and include a new bypass of Huntingdon and Godmanchester, expected to open in 2020. Other constraints in the region include:

- the A47 between Peterborough, Wisbech and King's Lynn, a predominately single-carriageway route which acts as the key link to the Fens, with congestion expected to worsen as a result of development at Wisbech Garden Town without further investment;
- the A1139 Fletton Parkway and A1260 Nene Parkway, which form an important radial route around Peterborough and provide access from the A47 to the A1 (south) and to the Fens, which suffer from peak period congestion;
- the A16 to the north of Peterborough, a single-carriageway route which acts as a key link from Cambridge and Peterborough to Lincolnshire;
- the A10 between Cambridge and Ely, a single-carriageway route with significant peak-time commuter traffic, and a key link from East Cambridgeshire to the wider national highway network;
- the A505, which provides key links across the south of the Combined Authority to the south of Cambridge, and onwards to Hertfordshire, Norfolk and Suffolk; and
- the two-lane section of the M11 to the west of Cambridge, which suffers from peak-time congestion and a poor safety record.

11.203 Some of these routes are managed locally, and form part of the Combined Authority's Key Route Network (KRN)[158], and are currently managed by Cambridgeshire County Council and/or Peterborough City Council, and others by Highways England as part of the national Strategic Road Network (SRN). The Combined Authority will therefore work with its partners to deliver much-needed upgrades to these routes, to alleviate congestion, improve reliability and improve accessibility to areas poorly served by the highway network. This will include, as first priorities,

- working with the Greater Cambridge Partnership to dual the A10 between the Milton Interchange and Waterbeach New Town, in conjunction with a new segregated public transport link along this corridor. This will improve journey times and reduce congestion along this key link to Cambridge, and help to improve accessibility to East Cambridgeshire and the Fens. We will also work to develop the case for extending the dual carriageway to Ely in the longer term, subject to a suitable business case;
- working with Highways England to upgrade the A47 between Wisbech, Peterborough and the A1. Upgrading of the A47 / A141 Guyhirn Junction and dualling of the A47 between Wansford and Sutton is expected to be completed by 2021, and we will continue to work with Highways England to deliver dualling of the route throughout to improve accessibility to the Fens and support development at Wisbech Garden Town; and
- continue working with Highways England, Network Rail and Kier to complete the **A**605 Kings Dyke Improvement Scheme which will relieve congestion at the level crossing and provide future economic expansion and housing stimulation within the Whittlesey area.

[158] The majority of these routes are also part of the Department for Transport's 'Key Road Network' of nationally-important Local Highway Authority-managed A-roads, which are specifically targeted for investment within the Government's Transport Investment Strategy.

11.204 In the longer-term, we will also work with Highways England and Cambridgeshire County Council to upgrade the A505 corridor. We will also support an upgrade of the M11 to three-lane 'smart motorway' standard between Stansted Airport and the Girton Interchange, as currently proposed by the Greater Cambridge Partnership, in conjunction with Highways England.

*Policy 20.2: Develop new road corridors where required to support development and housing growth*

11.205 Major growth is currently occurring across the Combined Authority area, including a combination of new settlements (such as at Alconbury Weald), urban extensions (such as at the Cambridge Biomedical Campus) and new educational and health facilities (such as the future Peterborough University). Such growth will deliver tens of thousands of new homes and jobs over the coming years, helping to make the Combined Authority a more affordable place to live and helping meet our aspirations to double Gross Value Added by 2050.

11.206 Our proposals for connecting new developments sustainably is outlined in policy theme 1.1 (Enabling development). New transport infrastructure – both highway and public transport – will be needed to support development, where required, since future development is largely dependent on good highway links to allow new residents to access key services, education and employment, and for businesses to have access to the region's labour markets and trade with firms elsewhere. Without improved highway connectivity, there is a risk that future growth could be put at risk – or of congestion and reliability worsening, undermining the region's economy and quality-of-life.

11.207 Together with the highway schemes outlined in policy theme 18 (The local road network), the Combined Authority will therefore support the development of new highway corridors where required to support the region's sustainable growth. Several small-scale schemes have recently been completed, or are under construction:

- upgrading of the B1050 to provide access between Northstowe and the A14;
- widening of Nature's Way in Peterborough, supporting the development of new communities at Hampton Hargate and Hampton Vale; and
- local highway investment in Huntingdon, including the completion of Edison Bell Way, and local improvements in the town following completion of the A14 upgrade.

11.208 The Combined Authority will focus on delivering a Third River Crossing at Huntingdon, which is key to unlocking significant housing growth in Huntingdonshire by providing an efficient connection to the A14, together with improved linkages between the A141 at Huntingdon and the Alconbury Weald development. The first phase of this link, a new roundabout on the A141, is expected to begin construction shortly, to be followed with a new link road from the junction to the heart of the Alconbury Weald site. We will also focus efforts to improve accessibility of the future site of Peterborough University, located at Bishops' Road to the south of the City Centre, through local road widening and/or junction improvements focusing on Southern Fengate.

11.209 These schemes, together with those outlined under policy theme 18 (The Local road network) will support significant levels of additional growth, and significantly improve the accessibility of the region. Through alleviating local traffic congestion, they will also help to improve air quality by reducing emissions from idling vehicles. However, areas in the central Fens such as Chatteris and March will remain some distance from the strategic highway network, and hence will not be able to support large-scale growth in the short-term.

11.210 The Combined Authority will therefore also explore the case for an extension to the M11, or a new dual-carriageway standard route, from Cambridge to Chatteris, March and Wisbech, which would transform access to the Fens and could help to reduce social and economic inequalities, broaden access to trade and labour markets, and unlock significant additional growth. Ongoing work is exploring the feasibility and affordability of the scheme which, subject to development of a business case, would be developed in the longer-term, post 2030.

*Policy 20.3: Support improvements on regional and national corridors to improve accessibility to the rest of the UK and abroad*

11.211 Cambridgeshire and Peterborough rely on access to the wider, national highway network to travel to destinations elsewhere (such as London and the West Midlands), together with key international gateways such as Stansted Airport and the Port of Felixstowe. These onward linkages are important for allowing our residents to travel to other parts of the country for work and leisure, and key to allowing our businesses to export their goods and trade elsewhere in the country and abroad.

11.212 Highways England are responsible for the national strategic highway network, and the Combined Authority will support their proposals to improve access to our region. This includes:

- dualling of the A428 between Cambourne / Caxton Gibbet and St Neots / Black Cat, which will alleviate a key point in our highway network and improve links between St Neots and Cambridge, and is expected to open in the mid-2020s. This will form an initial phase of the Oxford to Cambridge Expressway, significantly improving links from the Combined Authority to the rapidly-growing Oxford to Cambridge Arc, such as to Milton Keynes, Oxford and the west of England;
- upgrading the A1 between Baldock (near Biggleswade) and Brampton (near Huntingdon), which will improve links between Peterborough and the west of the Combined Authority with London, and the wider national highway network. It will also alleviate congestion on the M11 via Cambridge, and support housing growth along the A1 and East Coast Main Line corridor; and
- improvements to the A1 Wittering junction**,** by grade-separating an important local junction, which suffers from peak-time congestion and a poor safety record on a key national trunk road.

11.213 These upgrades, delivered by Highways England, will help to improve wider connectivity to the Combined Authority area and increase the overall resilience of the highway network. They also support our plans for moving goods around the region, as outlined in policy theme 3.4 (Freight).

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MOTT MACDONALD

# Cambridgeshire and Peterborough Combined Authority Local Transport Plan

## Community Impact Assessment

May 2019

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# Cambridgeshire and Peterborough Combined Authority Local Transport Plan

## Community Impact Assessment

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# Contents

# 1 Introduction

## 1.1 Background

The Transport Act 2000 (as amended by the Local Transport Act 2008) requires local transport authorities to produce a Local Transport Plan (LTP). Under the Cambridgeshire and Peterborough Combined Authority Order, 2017, the Combined Authority is now the Local Transport Authority with strategic transport powers for the area previously covered by Cambridgeshire County Council and Peterborough City Council. As such, responsibility for the LTP in Cambridgeshire and Peterborough now rests with the Combined Authority.

Good transport is a vital factor in building sustainable local communities. It contributes to the achievement of stronger, safer and healthier communities, equality and social inclusion, environmental objectives and more successful local economies. The LTP is a vital framework in helping the Combined Authority work with stakeholders to strengthen its place-shaping role and its delivery of services to the community.

The current LTP for the Cambridgeshire and Peterborough area is an amalgamation of the two LTPs previously prepared by Cambridgeshire County Council and Peterborough City Council. This was necessary to ensure that that the Combined Authority complied with its statutory duty to produce an LTP following the formation of the Combined Authority. As a result, the current LTP does not fully reflect the aspirations of the CPCA as set out by the Mayor and in the wider CPCA 2030 Strategy. Therefore, a new LTP is being developed.

The LTP covers the geographical areas of Cambridgeshire and Peterborough, including the following Local Authorities:

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

The new Cambridgeshire and Peterborough LTP (from now on called the LTP) will include policies and projects, designed to deliver the LTP's objectives.

## 1.2 Purpose of this report

Mott MacDonald have been commissioned to undertake an independent 'community impact assessment' (CIA). A CIA is used as an assessment tool to measure potential impacts across several topics (this CIA covers equality, health, and community impacts). It is a continuous process that helps policy makers think through the reasons for the interventions.

The process has centred on the delivery of two key documents – a Health Impact Assessment (HIA) and an Equalities Impact Assessment (EqIA).

## 1.3 Structure of this report

This report presents the finding of the CIA for the LTP.

The structure of this report is presented below:

- Chapter 1 – Introduction
- Chapter 2 – Description of the LTP including context, geographical area, vision, goals and objectives
- Chapter 3 - Description of the CIA including the rationale and methodology
- Chapter 4 - Description of the assessment framework
- Chapter 5 - Establish the socio-demographic profile of the LTP area
- Chapter 6 – provides the findings of the CIA and identifies the potential positive and negative impacts on different sections of society and opportunities to enhance equality and health and mitigate any negative impacts.
- Chapter 7 - sets out the overall findings of the CIA and recommendations.

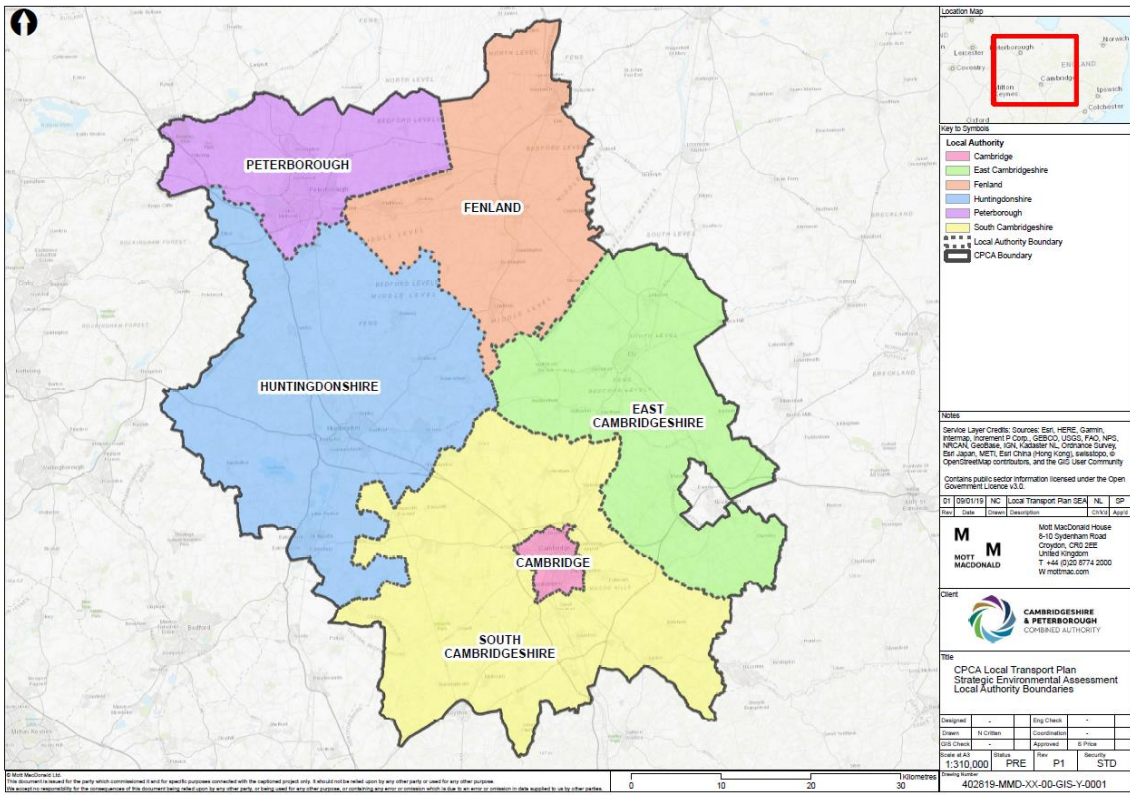
# 2 The Cambridgeshire and Peterborough Local Transport Plan

## 2.1 LTP Context

The LTP covers the geographical areas of Cambridgeshire and Peterborough (see Figure 1), including the following Local Authorities:

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

**Figure 1: Cambridgeshire and Peterborough Local Transport Plan Area**




Source: Mott MacDonald, January 2019

## 2.2 LTP Vision, Goals and Objectives

A vision statement, goals and objectives have been developed for the new Cambridgeshire and Peterborough LTP and are presented in Table 1 below.

**Table 1: LTP Vision, Goals and Objectives**

**Our vision is to deliver a world-class transport network for Cambridgeshire and Peterborough that supports the sustainable growth and health and wellbeing of our communities, providing opportunities for all**

| | Economic | Social | Environmental |
|---|---|---|---|
| **Goals** | Deliver economic growth and opportunity for all our communities | Provide an accessible transport system to ensure everyone can thrive and be healthy | Protect and enhance our environment and tackle climate change together |
| **Objectives** | • Support new housing and development to accommodate a growing population and workforce, and address housing affordability issues<br>• Connect all new and existing communities sustainably so all residents can easily access a good job, spreading the region's prosperity<br>• Ensure all of our region's businesses and tourist attractions are connected sustainably to our main transport hubs, ports and airports<br>• Build a resilient and adaptive network that is less susceptible to human and environmental disruption, improving journey time and reliability | • Embed a safe systems approach into all planning and transport operations to achieve Vision Zero – zero fatalities or serious injuries<br>• Promote social inclusion through the provision of a sustainable transport network that is affordable and accessible for all<br>• Provide 'healthy streets' and high-quality public realm that puts people first and promotes active lifestyles<br>• Ensure transport initiatives es improve air quality across the region to exceed good practice standards | • Deliver a transport network that protects and enhances our natural, historic and built environments<br>• Reduce emission to as close to zero as possible to minimise the impact of transport and travel on climate change |

Source: CPCA LTP Project Team, January 2019

## 2.3 Developing the Cambridgeshire and Peterborough LTP

### 2.3.1 Policy development

The key transport policy and strategy documents from the Cambridgeshire and Peterborough Combined Authority, Cambridgeshire County Council, Peterborough City Council and Greater Cambridge Partnership were reviewed by the CPCA LTP Project Team to develop a long list of policies. The reviewed documents were:

- Peterborough Local Transport Plan 4
- Cambridgeshire Local Transport Plan 3
- The Mayor's Interim Transport Strategy
- Cambridgeshire and Peterborough Strategic Spatial Framework
- Cambridgeshire and Peterborough Combined Authority 2030 Ambition
- Greater Cambridge Partnership Transport Aims 4.

Through this review a long list of over 140 policies was identified, along with which of the ten LTP objectives they met.

Following development of the long list, a round of consolidation was undertaken to remove repetitions and to ensure that policies were sufficiently broad. This resulted in lists of policy themes for each objective which were brought together into one master list of policy themes. A second round of consolidation was then carried out by grouping together policy themes to generate an initial shortlist of policy areas. The initial shortlist was cross-tabulated with the objectives to show alignments (some policy areas cross cut all objectives) and to reveal gaps. At this point, a number of additional policy areas were considered for inclusion. From a final short-list of 40 policy areas, 32 policies have been developed, as detailed in Table 2.

**Table 2: Policies**

- Access to education and key services
- Accessing ports and airports
- Building a resilient and adaptive transport network to climate change
- Planning and designing developments sustainably
- Cycling
- Delivering a seamless public transport system
- Enabling development
- Enhancing our built environment and protecting our historic environments
- Ensuring transport security
- Expanding labour markets
- Freight
- Improving air quality
- Improving public transport in our towns and cities
- Maintaining and managing the transport network
- Making long distance journeys by car
- Parking
- Supporting and promoting health and wellbeing
- Protecting our natural environment
- Public rights of way and waterways
- Raising awareness of sustainable transport options
- Reducing the carbon emissions from travel
- Rural transport services
- Safety for all – a safe systems approach
- Supporting business clusters
- Supporting the local visitor economy
- The future of mobility
- The local road network
- Transport accessibility for all
- Transport pricing and affordability
- Travelling by coach
- Travelling by train
- Walking

Source: CPCA LTP Project Team

# 3 Community impact assessment

## 3.1 Overview

This CIA sets out the key potential social and community impacts of the LTP proposals. The process has centred on the delivery of two key documents – the EqIA and the HIA. The CIA draws the findings of these studies together alongside additional evidence and analysis not covered by them and focusses on social impacts on community groups. The primary focus will be on the impact of the LTP on areas of deprivation, and on those reliant on the transport network for access to social and economic opportunity.

A number of statutory documents are required to support development of the LTP as outlined in Annex A of the DfT guidance[1]. These include environmental and social assessments including:

- Strategic Environment Assessment (SEA)
- Habitats Regulations Assessment (HRA)

The HRA and SEA have been presented in separate reports, but the results of these assessments will be used to inform the CIA

The CIA has involved the production of an assessment framework that established objectives to measure good social and environmental practice. This led on to the creation of assessment guide questions for each objective to establish the effect of the implementation of the LTP policies. We then scoped the LTP policies against assessment objectives and evaluated each LTP policy against the assessment framework establishing the magnitude, duration and permanency of the effect of the LTP policies in achieving the objectives of the assessment framework.

## 3.2 Impact assessment methodologies

### 3.2.1 Equality Impact Assessment (EqIA)

This EqIA has been undertaken in order to fulfil the Combined Authority's obligations under current UK equality legislation, and in particular the Equality Act 2010. The Act sets out a Public Sector Equality Duty (PSED), at section 149 and is set out in Figure 2 below.

[1] DfT (2009): 'Guidance on Local Transport Plans'

**Figure 2: Article 149 of the Equality Act 2010: The Public Sector Equality Duty**

**(1) A public authority must, in the exercise of its functions, have due regard to the need to—**

**(a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;**

**(b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;**

**(c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.**

**(2) A person who is not a public authority but who exercises public functions must, in the exercise of those functions, have due regard to the matters mentioned in subsection (1).**

**(3) Having due regard to the need to advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it involves having due regard, in particular, to the need to—**

**(a) remove or minimise disadvantages suffered by persons who share a relevant protected characteristic that are connected to that characteristic;**

**(b) take steps to meet the needs of persons who share a relevant protected characteristic that are different from the needs of persons who do not share it;**

**(c) encourage persons who share a relevant protected characteristic to participate in public life or in any other activity in which participation by such persons is disproportionately low.**

Source: Equality Act 2010

The PSED is intended to support good decision-making. It encourages public bodies such as the Combined Authority to understand how different people will be affected by their activities. The aim of this is to ensure that policies and services are appropriate, accessible and meet the needs of different people. The Combined Authority must demonstrate that it has shown due regard to the aims of the PSED throughout the LTP. The process used to do this must take account of the protected characteristics which are identified below in section 3.2.1.2.

#### 3.2.1.1 Assessing equality impacts

While the PSED does not specify a particular process for considering the likely effects of policies, programmes and projects on different sections of society for public authorities to follow, this process is usually undertaken through some form of equality analysis, which can include EqIAs.

Undertaking an EqIA helps to demonstrate how a public body is complying with the PSED by:

- providing a written record of the equality considerations which have been taken into account;
- ensuring that decision-making includes a consideration of the actions that would help to avoid or mitigate any negative impacts on particular protected groups; and
- supporting evidence-based and more transparent decision-making.

By understanding the effect of their activities on different people, and how inclusive delivery can support and open opportunities, public bodies can be more efficient and effective. The EqIA process therefore helps public bodies to deliver the Government's overall objectives for public services.

#### 3.2.1.2 Protected characteristics

An EqIA provides a systematic assessment of the likely or actual effects of policies or proposals on social groups with the following protected characteristics (as defined by the Equality Act):[2]

| Protected characteristic | Equality and Human Rights Commission (EHRC) definition |
|---|---|
| Age | A person belonging to a particular age (for example 32-year olds) or range of ages (for example 18 to 30-year olds). |
| Disability | A person has a disability if she or he has a physical or mental impairment which has a substantial and long-term adverse effect on that person's ability to carry out normal day-to-day activities. |
| Gender reassignment | The process of transitioning from one gender to another. |
| Marriage and civil partnership | Marriage is a union between a man and a woman or between a same-sex couple.<br>Couples can also have their relationships legally recognised as 'civil partnerships'. Civil partners must not be treated less favourably than married couples (except where permitted by the Equality Act). |
| Pregnancy and maternity | Pregnancy is the condition of being pregnant or expecting a baby. Maternity refers to the period after the birth and is linked to maternity leave in the employment context. In the non-work context, protection against maternity discrimination is for 26 weeks after giving birth, and this includes treating a woman unfavourably because she is breastfeeding. |
| Race and ethnicity | Refers to the protected characteristic of race. It refers to a group of people defined by their race, colour, and nationality (including citizenship) ethnic or national origins. |
| Religion and belief | Religion has the meaning usually given to it, but belief includes religious and philosophical beliefs including lack of belief (such as Atheism). Generally, a belief should affect someone's life choices or the way they live for it to be included in the definition. |
| Sex | A man, woman or non-binary person. |
| Sexual orientation | Whether a person's sexual attraction is towards their own sex, the opposite sex or to both sexes. |

An EqIA does this through the following approaches:

- Assessing whether one or more of these groups could experience disproportionate effects (over and above the effects likely to be experienced by the rest of the population) as a result of the proposed policy being implemented. An EqIA includes examining both potential positive and negative effects.
- Identifying opportunities to promote equality more effectively.
- Developing ways in which any disproportionate negative impacts could be removed or mitigated to prevent any unlawful discrimination and minimise inequality of outcomes.

#### 3.2.1.3 Overall approach to the EqIA

The approach to this EqIA employs the bespoke Mott MacDonald INCLUDE toolkit, which sets out the following steps:


[2] Government Equalities Office/Home Office (2010): '*Equality Act 2010*'

**Understanding the project**
The first stage of the process involved understanding the project and identifying how the LTP might be relevant to protected characteristic groups. Background information was also gathered on the project, which helped identify population groups that may be disproportionately affected.

**Evidence, distribution and proportionality**
Evidence was gathered through the preparation of demographic data and the production of an evidence base including a review of literature on the impacts of transport policies on groups with protected characteristics.

**Engagement and analysis**
Stakeholders were contacted to seek their input into this EqIA. A series of telephone interviews were carried out following a topic guide that was devised to capture their thoughts around the LTP. A total of ten organisations participated, a list of which can be found in Appendix B. A list of agreed stakeholders were contacted up to three times via email to participate in an interview.

**Impact assessment**
This stage involved assessing the policies against the produced assessment framework and assessment guide questions that established objectives to measure good social and environmental practice.

**Drawing conclusions and action planning**
The final stage drew conclusions on the overall impacts of the LTP and made recommendations on ways to mitigate or eliminate potential negative effects and maximise the potential positive outcomes for equality groups.

#### 3.2.1.4 Identifying impacts

**Differential impacts**
Differential impacts occur where people with protected characteristics are likely to be affected in a different way to other members of the general population. This may be because groups have specific needs or are more susceptible to the impact due to their protected characteristics. These impacts are not dependent on the number of people affected.

The “evidence, distribution and proportionality” and “stakeholder engagement and analysis” stages of INCLUDE are used to explore the potential impacts of the LTP. The output of this work identifies the protected characteristic groups who may be most likely to experience impacts arising from the LTP.

**Disproportionate impacts**
Disproportionate impacts occur where there is likely to be a comparatively greater effect on equality groups than on other members of the general population. Disproportionate effects may occur if the affected community includes a higher than average proportion of people with a protected characteristic, or because people from a protected characteristic group are the primary users of an affected resource.

Identifying disproportionate impacts involves determining the demographic composition of the area where impacts are expected to arise; this work identifies the numbers and proportions of people from protected characteristic groups within the Combined Authority. The demographic analysis in the “evidence, distribution and proportionality” and “stakeholder engagement and analysis” stages of INCLUDE is intended to understand the composition and characteristics of people living within the Combined Authority.

### 3.2.2 Health Impact Assessment (HIA)

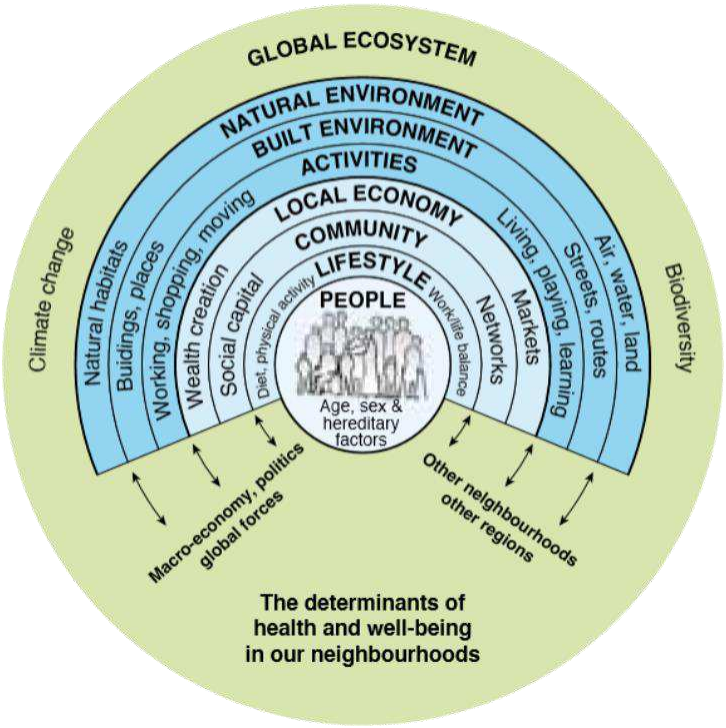
This section provides an overview of the method for the HIA. An HIA helps to ensure that CPCA considers the positive and negative effects of their proposals for the LTP on health. It is designed to help to assess whether health consequences will affect the whole population of the Combined Authority or just certain sections of that population.

The objectives of the HIA are:

1. To identify the potential positive and negative health effects associated with the changes resulting from the proposed LTP;
2. To identify opportunities for improving health and promoting health equity; and
3. To identify opportunities to mitigate negative effects on health, on vulnerable sections of society, and to reduce health inequalities.

Our approach used the World Health Organization's (WHO) definition of health as a 'state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'. We considered health inequity (avoidable differences in health), introducing a notion of fairness. Issues around cumulative health effects were considered to identify where potential effects combine to affect populations, either in spatial terms such as a community, or in demographic terms such as particular group or section of society. The figure below highlights the determinants of health in a community context.

**Figure 3: Determinants of health**




Source: Barton and Grant (2006) The health map, based on a public health concept by Whitehead and Dahlgren, The Lancet 1991. Department for Health (2010) Health impact assessment of government policy.

The HIA was structured around the five-stage process that is set out in the Department of Health publication 'Health Impact Assessment of Government Policy' (2010).

- Stage 1: Screening – determining whether an HIA is necessary.

- Stage 2: Identify health impacts – developing a long list of all the potential impacts on the health of the population.
- Stage 3: Identify impacts with important health outcomes – determining whether impacts are universal or affect some community groups disproportionately; are permanent or reversible; are short, medium or long term; could be publicly sensitive; or could have cumulative or synergistic effects.
- Stage 4: Quantify or describe important health impacts – reaching a qualitative and quantitative judgement about the important health impacts and their potential costs and benefits.
- Stage 5: Recommendations to achieve most health gains – setting out how the policy or project could be amended to maximise health benefits and reduce health inequalities.

The HIA draws on desk-based evidence and data sources, and will reference, in part, the findings of the SEA where applicable. This included consultation with public health officials in the Combined Authority.

# 4 Assessment framework

## 4.1 Assessment objectives

The LTP has a series of objectives, detailed in section 2.2. These objectives have been aligned against assessment objectives to measure good social, economic and environmental practice. The assessment objectives have a series of assessment guide questions which have been designed to establish the impact of the implementation of the LTP policies. The local transport plan objectives, assessment objectives and assessment guide questions are mapped in Table 3 below.

The assessment objectives (AO) are as follows:

1. AO1. To enhance and improve accessibility and connectivity for all
2. AO2. To increase the proportion of journeys made by public transport and active travel modes
3. AO3. To strengthen the area's position as a growing and diverse economy, providing opportunities for all
4. AO4. To support housing to better meet demographic change and household demand
5. AO5. To protect, connect and enhance the region's natural capital and the services and benefits it provides

The assessment considered both potential positive and negative effects. Drawing together the information from the demographic mapping, literature review and stakeholder engagement, the impacts, their extent, and the sensitivity of the groups likely to experience them were assessed against the assessment guide questions to reach a balanced assessment of the impact. The following scale has been used to determine the magnitude of both positive and negative impacts on the groups identified.

**Table 3: Impact assessment scale**

| Major adverse | Moderate adverse | Minor adverse | Neutral | Minor beneficial | Moderate beneficial | Major beneficial |
|---|---|---|---|---|---|---|
| XXX | XX | X | 0 | ✓ | ✓✓ | ✓✓✓ |

Source: Mott MacDonald, 2019

**Table 4: Mapped assessment objectives**

| Local transport plan objectives (OB) | Policy themes | Assessment objectives (AO) | Assessment guide questions: Does the policy |
|---|---|---|---|
| OB1: Support new housing and development to accommodate a growing population and workforce, and address housing affordability issues | • Policy theme 1.1: Enabling development | AO4. To support housing to better meet demographic change and household demand | • Create or address deficiencies for green spaces that are safe and accessible to all?<br>• Help to facilitate the delivery of housing that meets the needs of the population including ensuring access to new and existing sustainable residential developments?<br>• Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities? |
| OB2: Connect all new and existing communities sustainably so all residents can easily access a good job, spreading the region's prosperity | • Policy theme 2.1: Planning and designing developments sustainably<br>• Policy theme 2.2: Expanding labour markets | AO3. To strengthen the area's position as a growing and diverse economy, providing opportunities for all<br>AO4. To support housing to better meet demographic change and household demand | • Help reduce overall unemployment, particularly long-term and youth unemployment, by removing barriers, improving resilience and enabling growth?<br>• Creates or addresses deficiencies for green spaces that are safe and accessible to all?<br>• Help to facilitate the delivery of housing that meets the needs of the population including ensuring access to new and existing sustainable residential developments?<br>• Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?<br>• Reduce the number of people, particularly the vulnerable, exposed to particulates and nitrogen dioxide concentrations, helping to achieve national and international standards for air quality and reduce carbon emissions? |
| OB3: Ensure all of our region's businesses and tourist attractions are connected sustainably to our main transport hubs, ports and airports | • Policy theme 3.1: Accessing ports and airports<br>• Policy theme 3.2: Supporting the local visitor economy<br>• Policy theme 3.3: Supporting business clusters<br>• Policy theme 3.4: Freight | AO1. To enhance and improve accessibility and connectivity for all<br>AO3. To strengthen the area's position as a growing and diverse economy, providing opportunities for all | • Create a travel environment that is (and feels) safe for all users, day and night?<br>• Improve access to sustainable transport modes including public transport and active travel?<br>• Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?<br>• Help reduce overall unemployment, particularly long-term and youth unemployment, by removing barriers, improving resilience and enabling growth?<br>• Reduce the number of people, particularly the vulnerable, exposed to particulates and nitrogen dioxide concentrations, helping to achieve national and international standards for air quality and reduce carbon emissions? |

| Local transport plan objectives (OB) | Policy themes | Assessment objectives (AO) | Assessment guide questions: Does the policy |
|---|---|---|---|
| OB4: Build a transport network that is resilient and adaptive to human and environmental disruption, improving journey time reliability | • Policy theme 4.1: Building a resilient and adaptive transport network to climate change<br>• Policy theme 4.2: Maintaining and managing the transport network | AO2. To increase the proportion of journeys made by public transport and active travel modes<br>AO5. To protect, connect and enhance the region's natural capital and the services and benefits it provide | • Create a travel environment that is (and feels) safe for all users, day and night?<br>• Improve access to sustainable transport modes including public transport and active travel?<br>• Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?<br>• Reduce the number of people, particularly the vulnerable, exposed to particulates and nitrogen dioxide concentrations, helping to achieve national and international standards for air quality and reduce carbon emissions?<br>• Creates or addresses deficiencies for green spaces that are safe and accessible to all? |
| OB5: Embed a safe systems approach into all planning and transport operations to achieve Vision Zero – zero fatalities or serious injuries | • Policy theme 5.1: Safety for all – a safe systems approach<br>• Policy theme 5.2: Ensuring transport security | AO1. To enhance and improve accessibility and connectivity for all<br>AO2. To increase the proportion of journeys made by public transport and active travel modes | • Create a travel environment that is (and feels) safe for all users, day and night?<br>• Improve access to sustainable transport modes including public transport and active travel?<br>• Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?<br>• Reduce the number of people, particularly the vulnerable, exposed to particulates and nitrogen dioxide concentrations, helping to achieve national and international standards for air quality and reduce carbon emissions? |
| OB6: Promote social inclusion through the provision of a sustainable transport network that is affordable and accessible for all | • Policy theme 6.1: Transport accessibility for all<br>• Policy theme 6.2: Transport pricing and affordability<br>• Policy theme 6.3: Access to education and key services<br>• Policy theme 6.4: The future of mobility | AO1. To enhance and improve accessibility and connectivity for all<br>AO2. To increase the proportion of journeys made by public transport and active travel modes | • Create a travel environment that is (and feels) safe for all users, day and night?<br>• Improve access to sustainable transport modes including public transport and active travel?<br>• Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?<br>• Reduce the number of people, particularly the vulnerable, exposed to particulates and nitrogen dioxide concentrations, helping to achieve national and international standards for air quality and reduce carbon emissions? |

| Local transport plan objectives (OB) | Policy themes | Assessment objectives (AO) | Assessment guide questions: Does the policy |
|---|---|---|---|
| OB7: Provide 'healthy streets' and high-quality public realm that puts people first and promotes active lifestyles | • Policy theme 7.1: Public rights of way and waterways<br>• Policy theme 7.2: Promoting and raising awareness of sustainable transport options<br>• Policy theme 7.3: Supporting and promoting health and wellbeing | AO1. To enhance and improve accessibility and connectivity for all<br>AO2. To increase the proportion of journeys made by public transport and active travel modes<br>AO5. To protect, connect and enhance the region's natural capital and the services and benefits it provide | • Create a travel environment that is (and feels) safe for all users, day and night?<br>• Improve access to sustainable transport modes including public transport and active travel?<br>• Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?<br>• Reduce the number of people, particularly the vulnerable, exposed to particulates and nitrogen dioxide concentrations, helping to achieve national and international standards for air quality and reduce carbon emissions?<br>• Creates or addresses deficiencies for green spaces that are safe and accessible to all? |
| OB8: Ensure transport initiatives improve air quality across the region to exceed good practice standards | • Policy theme 8.1: Improving air quality | AO2. To increase the proportion of journeys made by public transport and active travel modes | • Create a travel environment that is (and feels) safe for all users, day and night?<br>• Improve access to sustainable transport modes including public transport and active travel?<br>• Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?<br>• Reduce the number of people, particularly the vulnerable, exposed to particulates and nitrogen dioxide concentrations, helping to achieve national and international standards for air quality and reduce carbon emissions? |
| OB9: Deliver a transport network that protects and enhances our natural, historic and built environments | • Policy theme 9.1: Protecting our natural environment<br>• Policy theme 9.2: Enhancing our built environments and protecting our historic environments | AO5. To protect, connect and enhance the region's natural capital and the services and benefits it provide | • Creates or addresses deficiencies for green spaces that are safe and accessible to all?<br>• Reduce the number of people, particularly the vulnerable, exposed to particulates and nitrogen dioxide concentrations, helping to achieve national and international standards for air quality and reduce carbon emissions? |

| Local transport plan objectives (OB) | Policy themes | Assessment objectives (AO) | Assessment guide questions: Does the policy |
|---|---|---|---|
| OB10: Reduce emissions to as close to zero as possible to minimise the impact of transport and travel on climate change | • Policy theme 10.1: Reducing the carbon emissions from travel | AO2. To increase the proportion of journeys made by public transport and active travel modes | • Create a travel environment that is (and feels) safe for all users, day and night?<br>• Improve access to sustainable transport modes including public transport and active travel?<br>• Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?<br>• Reduce the number of people, particularly the vulnerable, exposed to particulates and nitrogen dioxide concentrations, helping to achieve national and international standards for air quality and reduce carbon emissions? |
| Modal Policies | • Policy theme 11: Walking<br>• Policy theme 12: Cycling<br>• Policy theme 13: Delivering a seamless public transport system<br>• Policy theme 14: Rural transport services<br>• Policy theme 15: Improving public transport in our towns and cities<br>• Policy theme 16: Travelling by coach<br>• Policy theme 17: Travelling by train<br>• Policy theme 18: The road network<br>• Policy theme 19: Parking<br>• Policy theme 20: Making long-distance journeys by car | AO1. To enhance and improve accessibility and connectivity for all<br>AO2. To increase the proportion of journeys made by public transport and active travel modes<br>AO3. To strengthen the area's position as a growing and diverse economy, providing opportunities for all<br>AO5. To protect, connect and enhance the region's natural capital and the services and benefits it provide | • Create a travel environment that is (and feels) safe for all users, day and night?<br>• Improve access to sustainable transport modes including public transport and active travel?<br>• Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?<br>• Reduce the number of people, particularly the vulnerable, exposed to particulates and nitrogen dioxide concentrations, helping to achieve national and international standards for air quality and reduce carbon emissions?<br>• Help reduce overall unemployment, particularly long-term and youth unemployment, by removing barriers, improving resilience and enabling growth?<br>• Creates or addresses deficiencies for green spaces that are safe and accessible to all? |

# 5 Socio-demographic characteristics

## 5.1 Introduction

This chapter summarises the socio-demographic profile of the Combined Authority. This includes the profile by protected characteristic groups as defined by the Equality Act 2010 and a select choice of socio-demographic statistics including deprivation, household car availability and life expectancy at birth. A full profile including density maps can be found in Appendix C.

## 5.2 Population overview

The Combined Authority is home to 847,151 people across the six districts[3]. The population of the individual districts is as follows:

- Peterborough 198,914 people;
- Huntingdonshire 176,979 people;
- South Cambridgeshire 156,705 people;
- Cambridge 124,919 people;
- Fenland 100,776 people; and
- East Cambridgeshire 88,858 people.

The population of the Combined Authority live in a variety of geographies, 37% live in urban settlements (e.g. Cambridge and Peterborough), 43% live in market towns (e.g. Huntingdon and Ely) and 20% live in rural settlements and villages.[4]

## 5.3 Summary

Table 5 summarises the socio-demographic profile of the Combined Authority. The table demonstrates that the six districts that make up the Combined Authority are varied in their socio-demographic makeup.

### 5.3.1 Age

The age profile of the Combined Authority is in line with the England average - 19.6% are under 16 years old, 11% are aged 16-24 years old and 17.7% are 65 years or older.

- Peterborough has the highest proportion of children (22.9%).
- Cambridge has the highest proportion of those age 16-24 years old (22.4%).
- Fenland has the highest proportion of those aged 65 years and older (22.4%).

### 5.3.2 Disability

The Combined Authority has a similar proportion of those living with a Limiting Long-Term Illness (LLTI) to England (15.6% vs 17.6%).

- Peterborough has the highest proportion of people living with an LLTI (16.7%).
- Cambridge has the lowest proportion of people living with an LLTI (13%).

[3] Office for National Statistics (2017): 'Mid-year population estimates for England and Wales, Scotland and Northern Ireland'
[4] Steer (2018): 'Cambridgeshire and Peterborough Local Transport Plan: evidence base'

### 5.3.3 Pregnancy and maternity

The Combined Authority has the same proportion of women of child bearing age (16-44 years old) to England (18% for both). The total fertility rate in the Combined Authority is slightly higher (1.88 vs 1.76).

- Cambridge has the highest proportion of women of child bearing age (23%).
- Fenland has the lowest proportion of women of child bearing age (16%).

### 5.3.4 Race and ethnicity

White British is the largest ethnic group in the Combined Authority (81.4%) and for each of the six districts. The Combined Authority has a similar proportion of people from a BAME background to England (18.6% vs 20.2%).

- Cambridge has the highest proportion of people from a BAME background (34%).
- Fenland has the lowest proportion of people from a BAME background (9.6%).

### 5.3.5 Religion and belief

Christianity is the largest religious group in the Combined Authority (57.9%) and for each of the six districts. The Combined Authority has a lower proportion of people who belong to a minority faith groups in comparison to England (5.4% vs 8.7%).

- Peterborough has the highest proportion of people who belong to a minority faith group (12%).
- Cambridge has the lowest proportion of people who belong to a minority faith group (1.4%).

### 5.3.6 Sex

The proportion of males and females in the Combined Authority is in line with the England average (50% for both).

### 5.3.7 Deprivation

The Combined Authority has a lower proportion of people who live in the most deprived IMD quintile in comparison to England (12 % vs 20.4%).

- Peterborough has the highest proportion of people in the most deprived IMD quintile (37.2%).
- South Cambridgeshire and East Cambridgeshire have no people who live in the most deprived IMD quintile (0% for both).

### 5.3.8 Travel access

The Combined Authority has a lower proportion of people without access to a private vehicle in comparison to England (19.1% vs 25.8%).

- Huntingdonshire has the highest proportion of people without private vehicle access (33.6%).
- East Cambridgeshire has the lowest proportion of people without private vehicle access (11%).

## Table 5: Demographic summary table

| Demographic information | | Peterborough | Huntingdonshire | South Cambridgeshire | Cambridge | Fenland | East Cambridgeshire | Combined Authority | England |
|---|---|---|---|---|---|---|---|---|---|
| Age | Proportion of children (under 16 years old) | 22.9% | 18.4% | 20.1% | 16.6% | 17.8% | 20% | **19.6%** | **19.1%** |
| | Proportion of younger people (aged 16 to 24 years old) | 9.8% | 8.8% | 8.3% | 22.4% | 9.5% | 8.4% | **11%** | **10.9%** |
| | Proportion of older people (65 years and older) | 14.6% | 19.6% | 19.2% | 12.7% | 22.4% | 19.8% | **17.7%** | **18%** |
| Disability | Proportion of people with a LLTI | 16.7% | 14.9% | 13.9% | 13% | 21% | 15.4% | **15.6%** | **17.6%** |
| Pregnancy and maternity | Total fertility rate | 2.26 | 1.79 | 1.79 | 1.55 | 2.3 | 1.84 | **1.88** | **1.76** |
| | Proportion of total population of child bearing age (16-44) | 19% | 17% | 17% | 23% | 16% | 17% | **18%** | **18%** |
| Race and ethnicity | Proportion of White British people | 70.9% | 89.5% | 87.3% | 66% | 90.4% | 89.7% | **81.4%** | **79.8%** |
| | Proportion of BAME people | 29.1% | 10.5% | 12.7% | 34% | 9.6% | 10.3% | **18.6%** | **20.2%** |
| Religion or belief | Proportion of those from a minority faith | 12% | 8.3% | 1.6% | 1.4% | 2.4% | 3% | **5.4%** | **8.7%** |
| Sex | Proportion of males | 50.1% | 51.8% | 49.3% | 49.4% | 50% | 49.4% | **50%** | **49.4%** |
| | Proportion of females | 49.9% | 48.2% | 50.7% | 50.6% | 50% | 50.6% | **50%** | **50.6%** |
| Deprivation | Proportion of population in the most deprived quintile | 37.2% | 2.4% | 0% | 21.1% | 2.1% | 0% | **12%** | **20.4%** |
| Travel access | Proportion of those without access to a private vehicle | 24.9% | 33.6% | 13% | 18.1% | 13.6% | 11% | **19.1%** | **25.8%** |

Source: Office for National Statistics (2017): 'Mid-year population estimates for England and Wales, Scotland and Northern Ireland' Office for National Statistics (2011): 'Census, 2011', IMD 2015 and mid-year population estimates 2017

# 6 Assessment of the LTP policies

## 6.1 Introduction

This section of the report assesses each policy against a set of assessment questions to understand their potential equality and health impacts. In doing so each policy is assessed for its positive and negative impacts (including spatial impacts) and recommendations are made, where appropriate, on how these impacts could be mitigated or enhanced. As described in chapter 4, the scale used to determine the magnitude of both positive and negative impacts is described below. Table 6 summarises the potential impact of each policy theme.

**Table 6: Impact assessment scale**

| Major adverse | Moderate adverse | Minor adverse | Neutral | Minor beneficial | Moderate beneficial | Major beneficial |
|---|---|---|---|---|---|---|
| XXX | XX | X | 0 | ✓ | ✓✓ | ✓✓✓ |

Source: Mott MacDonald, 2019

The potential impacts and potentially impacted groups identified in this assessment are underpinned by the evidence base which takes the form of a comprehensive literature review and stakeholder engagement interviews as described in section 3.2 and can be found in appendices A and B.

## Table 7: Policy theme assessment

| Local transport plan objectives (OB) | Policy Themes | Assessment Objectives (AO) | Assessment Guide Questions: Reduce the number of people, particularly the vulnerable, exposed to particulates and nitrogen dioxide concentrations, helping to achieve national and international standards for air quality and reduce carbon emissions? | Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities? | Improve access to sustainable transport modes including public transport and active travel? | Help to facilitate the delivery of housing that meets the needs of the population including ensuring access to new and existing sustainable residential developments? | Help reduce overall unemployment, particularly long-term and youth unemployment, by removing barriers, improving resilience and enabling growth? | Creates or addresses deficiencies for green spaces that are safe and accessible to all? | Create a travel environment that is (and feels) safe for all users, day and night? |
|---|---|---|---|---|---|---|---|---|---|
| OB1 | 1.1: Enabling development | AO4 | N/A | ✓ | N/A | ✓ | N/A | 0 | N/A |
| OB2 | 2.1: Planning and designing developments sustainably | AO3 & AO4 | ✓ | ✓ | N/A | ✓ | ✓ | 0 | N/A |
| | 2.2: Expanding labour markets | | ✓ | 0 | N/A | 0 | ✓ | 0 | N/A |
| OB3 | 3.1: Accessing ports and airports | AO1 & AO3 | ✓ | ✓✓ | ✓✓ | N/A | ✓ | N/A | 0 |
| | 3.2: Supporting the local visitor economy | | ✓ | 0 | ✓ | N/A | 0 | N/A | ✓ |
| | 3.3: Supporting business clusters | | ✓ | 0 | ✓✓ | N/A | ✓ | N/A | 0 |
| | 3.4: Freight | | ✓ | ✓ | ✓✓ | N/A | 0 | N/A | ✓✓ |
| OB4 | 4.1: Building a resilient and adaptive transport network to climate change | AO2 & AO5 | ✓ | ✓ | 0 | N/A | N/A | 0 | ✓ |
| | 4.2: Maintaining and managing the transport network | | ✓ | ✓✓✓ | ✓✓ | N/A | N/A | 0 | ✓✓✓ |
| OB5 | 5.1: Safety for all – a safe systems approach | AO1 & AO2 | 0 | 0 | 0 | N/A | N/A | N/A | ✓✓ |
| | 5.2: Ensuring transport security | | 0 | ✓ | ✓ | N/A | N/A | N/A | ✓✓✓ |
| OB6 | 6.1: Transport accessibility for all | AO1 & AO2 | ✓ | ✓✓✓ | ✓✓ | N/A | N/A | N/A | ✓✓ |
| | 6.2: Transport pricing and affordability | | ✓✓ | ✓✓✓ | ✓✓✓ | N/A | N/A | N/A | 0 |
| | 6.3: Access to education and key services | | 0 | ✓✓✓ | ✓✓ | N/A | N/A | N/A | 0 |
| | 6.4: The future of mobility | | ✓ | 0 | 0 | N/A | N/A | N/A | 0 |

| Local transport plan objectives (OB) | Policy Themes | Assessment Objectives (AO) | Assessment Guide Questions | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Reduce the number of people, particularly the vulnerable, exposed to particulates and nitrogen dioxide concentrations, helping to achieve national and international standards for air quality and reduce carbon emissions? | Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities? | Improve access to sustainable transport modes including public transport and active travel? | Help to facilitate the delivery of housing that meets the needs of the population including ensuring access to new and existing sustainable residential developments? | Help reduce overall unemployment, particularly long-term and youth unemployment, by removing barriers, improving resilience and enabling growth? | Creates or addresses deficiencies for green spaces that are safe and accessible to all? | Create a travel environment that is (and feels) safe for all users, day and night? |
| OB7 | 7.1: Public rights of way and waterways | AO1, AO2 & AO5 | ✓ | ✓ | ✓✓✓ | N/A | N/A | ✓✓✓ | ✓✓ |
| | 7.2: Promoting and raising awareness of sustainable transport options | | ✓✓ | ✓✓ | ✓✓ | N/A | N/A | 0 | 0 |
| | 7.3: Supporting and promoting health and wellbeing | | ✓ | ✓ | ✓ | N/A | N/A | 0 | 0 |
| OB8 | 8.1: Improving air quality | AO2 | ✓ | 0 | ✓ | N/A | N/A | N/A | ✗ |
| OB9 | 9.1: Protecting our natural environment | AO5 | ✓ | N/A | N/A | N/A | N/A | ✓ | N/A |
| | 9.2: Enhancing our built environments and protecting our historic environments | | 0 | N/A | N/A | N/A | N/A | ✓ | N/A |
| OB10 | 10.1: Reducing the carbon emissions from travel | AO2 | ✓ | 0 | ✓ | N/A | N/A | N/A | 0 |
| Modal Policies | 11: Walking | AO1, AO2, AO3 & AO5 | ✓✓ | ✓✓✓ | ✓✓✓ | N/A | ✓ | ✓✓ | ✓✓✓ |
| | 12: Cycling | | ✓✓ | ✓✓✓ | ✓✓✓ | N/A | ✓ | 0 | ✓✓ |
| | 13: Delivering a seamless public transport system | | ✓✓✓ | ✓✓✓ | ✓✓✓ | N/A | ✓✓ | 0 | 0 |
| | 14: Rural transport services | | ✓✓✓ | ✓✓✓ | ✓✓✓ | N/A | ✓✓ | 0 | 0 |
| | 15: Improving public transport in our towns and cities | | ✓✓✓ | ✓✓✓ | ✓✓✓ | N/A | ✓✓ | 0 | ✗ |
| | 16: Travelling by coach | | ✓✓✓ | ✓✓ | ✓ | N/A | ✓✓ | 0 | ✓✓ |
| | 17: Travelling by train | | ✓✓ | 0 | ✓ | N/A | ✓✓✓ | 0 | ✓✓ |
| | 18: The local road network | | ✓✓✓ | ✓✓✓ | ✓✓ | N/A | ✓✓✓ | 0 | ✓✓ |
| | 19: Parking | | 0 | ✓✓ | 0 | N/A | ✓✓ | ✓✓✓ | ✗ |
| | 20: Making long-distance journeys by car | | ✓ | 0 | 0 | N/A | 0 | 0 | 0 |

Source: Mott MacDonald, 2019

## 6.2 Objective 1: Support new housing and development to accommodate a growing population and workforce, and address housing affordability issues

As detailed in section 4.1, objective 1 has been assessed against:

- AO4: to support housing to better meet demographic change and household demand.

### 6.2.1 Policy theme 1.1: Enabling development

**Table 8: Policy theme 1.1 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial considerations |
|---|---|---|---|
| Promoting nine key transport schemes across the Combined Authority to increase capacity and connectivity to enable development and a higher and accelerated rate of delivery | Helps to prevent community severance and its associated impacts from occurring in new developments[5]<br><br>Helps to facilitate housing that meets the needs of the population including benefits to public health. | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Alconbury<br>Cambridge<br>Cambridge South<br>Cambridgeshire<br>Deprived areas<br>Ely<br>Huntingdon<br>New developments<br>Soham<br>Walton<br>Wisbech |
| Ensure developer contributions (i.e. funding contributions) are sought to mitigate any negative impacts of new developments by improving existing or providing new transport infrastructure, including sustainable modes of transport | Helps to reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health<br><br>Helps to improve access to public and sustainable transport | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background | Deprived areas<br>New developments |

#### 6.2.1.1 Recommendations

Amend the policies to include specific reference to:

- any new or improved modes of transport to, from and within new developments are designed to be integrated to create an inclusive transport network.

## 6.3 Objective 2: Connect all new and existing communities sustainably so all residents can easily access a good job, spreading the region's prosperity

As detailed in section 4.1, objective 2 has been assessed against:

- AO3: to strengthen the area's position as a growing and diverse economy, providing opportunities for all; and
- AO4: to support housing to better meet demographic change and household demand.

[5] The associated impacts can be found in detail in the literature review and stakeholder engagement sections in appendices A and B.

### 6.3.1 Policy theme 2.1: Planning and designing developments sustainably

**Table 9: Policy theme 2.1 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Encourage the location of new developments to be within easy walking and cycling distance of key services and facilities | Helps to prevent community severance and its associated impacts from occurring in new developments[6] | • Children and younger people<br>• Older people<br>• Disabled people<br>• Women | Deprived areas<br>New developments<br>Air Quality Management Areas (AQMAs) |
| Encourage developers to implement safe, convenient and sustainable modes of transportation (including high quality public transport and electric vehicle charging points) | Helps to reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background | |
| | Helps to ensure access to services, facilities and communities including health, education and employment | • Children and younger people<br>• Older people<br>• Disabled people<br>• Women | |
| | Helps to improve access to public and sustainable transport | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | |
| Encourage Local Authority partners to implement quality cycle facilities at workplaces (including secured and covered cycle parking, showering and changing facilities at workplaces) | Helps to ensure access employment | • Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas<br>AQMAs |
| | Helps to improve public health overall through increased physical activity | | |
| | Helps to reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background | |

[6] The associated impacts can be found in detail in the literature review and stakeholder engagement sections in appendices A and B.

### 6.3.2 Policy theme 2.2: Expanding labour markets

**Table 10: Policy theme 2.2 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Enhance the frequency, reliability and ease of public transport for commuting purposes by reducing peak demand on the highway network | Helps to improve access and reduce barriers to employment | • Younger people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas<br>New developments |
| Enhance the frequency, reliability and ease of sustainable transport for commuting purposes by implementing new walking and cycling infrastructure | Helps to improve access and reduce barriers to employment | • Older people<br>• Pregnant women<br>• People from a BAME background<br>• Women | Deprived areas<br>AQMAs |
| | Helps to improve public health overall through increased physical activity | | |
| | Helps to reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background | |

#### 6.3.2.1 Recommendations

Amend the policies to include specific reference to:

- measures that will be used to create transport infrastructure that is safe and accessible to those with mobility issues. For example, reference should be made to the use of street lighting and a firmer commitment to creating spaces where people feel comfortable at all times of day and night to increase ‘eyes on the street’.

## 6.4 Objective 3: Ensure all of our region's businesses and tourist attractions are connected sustainably to our main transport hubs, ports and airports

As detailed in section 4.1, objective 3 has been assessed against:

- AO1: to enhance and improve accessibility and connectivity for all; and
- AO3: to strengthen the area's position as a growing and diverse economy, providing opportunities for all.

### 6.4.1 Policy theme 3.1: Accessing ports and airports

**Table 11: Policy theme 3.1 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Improved rail connectivity and frequency to ports (Harwich Sea Crossing) and Stanstead airport | Helps to improve access to sustainable transport (namely rail) reducing the need to rely on the car as a mode of travel | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background | Deprived areas |
| Provide more sustainable commuting options across the CA, such as working with Stanstead Airport to consider using car clubs for its employees, promoting car sharing schemes at key employment sites, and supporting cross boundary commuter travel by rail and bus | Helps encourage a modal shift from private vehicles to sustainable transport modes, creating a reduction in emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background | Deprived areas<br>AQMAs |
| | Helps to improve access to employment sites via sustainable modes of transport, potentially reducing the barrier to employment that a lack of transport can present | • Younger people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas |

### 6.4.2 Policy theme 3.2: Supporting the local visitor economy

**Table 12: Policy theme 3.2 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Improved waiting facilities at rural train stations | Helps to improve feelings of safety for those who can find the waiting elements of a journey the time they feel most at risk and vulnerable | • Older people | Rural areas |
| Provide real-time travel information at stations, particularly during times of disruption | Helps to improve access to travel information for those that have concerns about its provision, resulting in a barrier to public transport usage | • Older people<br>• Disabled people<br>• People from a BAME background | |
| Support the development of rural travel hubs | Helps to improve access to public transport, decreasing levels of social isolation experienced in rural areas | • Children and younger people<br>• Older people<br>• Disabled people | Rural areas |
| Deliver an integrated transport network for those visiting the region for the first time, by supporting sustainable transport connectivity to rural areas. | Helps encourage a modal shift from private vehicles to sustainable transport modes, creating a reduction in emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background | Deprived areas<br>AQMAs |

### 6.4.3 Policy theme 3.3: Supporting business clusters

**13: Policy theme 3.3 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Improved rail network increasing the frequency of key routes and reducing journey times for commuters | Helps to improve access to public transport, reducing the barriers to mobility that currently exist | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas |
| | Helps to improve access to employment sites via sustainable modes of transport, reducing the barrier to employment that a lack of transport can create | • Younger people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas |
| | Helps encourage a modal shift from private vehicles to sustainable transport modes, creating a reduction in emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background | Deprived areas<br>AQMAs |

### 6.4.4 Policy theme 3.4: Freight

**Table 14: Policy theme 3.4 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Support freight modal shift away from road infrastructure onto rail<br>Reviewing advisory routes and diversionary routes<br>Encourage deliveries to be made by alternative, more sustainable modes of freight | Helps to improve public safety on the road network through a decrease in large vehicle journeys | • Children and younger people<br>• Older people<br>• Disabled people<br>• Men | Deprived areas<br>Rural areas in freight routes |
| Support the assessment of the feasibility of a Low Emission Zone and Charge for Cambridge | Helps to improve awareness around the detrimental impacts of poor air quality, increasing the likelihood of measures being put in place to improve air quality | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background | Cambridge<br>Deprived areas |

#### 6.4.4.1 Recommendations

Amend the policies to include specific reference to:

- how wider barriers to using public transport that currently exist, such as cost, could be alleviated at the same time as improvements are made to the rail network
- what facilities would be implemented to improve waiting areas at train stations e.g. good lighting and enclosed waiting areas
- how real-time information will be provided in an accessible format, including multiple languages for locals and tourists who do not speak English as their first language

## 6.5 Objective 4: Build a transport network that is resilient and adaptive to human and environmental disruption, improving journey time reliability

As detailed in section 4.1, objective 4 has been assessed against:

- AO2: to increase the proportion of journeys made by public transport and active travel modes; and
- AO5: to protect, connect and enhance the region's natural capital and the services and benefits it provide.

### 6.5.1 Policy theme 4.1: Building a resilient and adaptive transport network to climate change

**Table 15: Policy theme 4.1 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Design and build new transport infrastructure with climate change in mind, including the implementation of sustainable drainage solutions | Helps to reduce the risk of future community severance due to either surface transport or railway and busway infrastructure vulnerabilities and its associated impacts | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas |
| Early consideration of sustainable and adaptive design principles and the use of more sustainable materials for road network maintenance | Helps to reduce the number of journeys being made for repairs and therefore a slight reduction in emissions and nitrogen dioxide concentrations slightly improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | Deprived areas<br>AQMAs |

### 6.5.2 Policy theme 4.2: Maintaining and managing the transport network

**Table 16: Policy theme 4.2 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Developing a prioritised programme of works, including active travel infrastructure, to ensure maintenance will address the most significant areas | Helps to improve public safety and consequent public health through increased road safety and increased maintenance of active travel facilities<br><br>Helps to reduce the number of journeys being made for repairs and therefore a slight reduction in emissions and nitrogen dioxide concentrations slightly improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas<br>AQMAs |
| Improved lighting and signage to ensure that local journeys are safe, reliable and efficient at all times and in all weather conditions | Helps to improve public safety and consequent public health through increased feelings of personal safety | • Children and younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Muslims<br>• Women<br>• Lesbian, gay and bisexual (LGB) individuals | Deprived areas |

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Early consideration of sustainable and adaptive design principles, the use of more sustainable materials and the co-ordination of roadworks | Helps to reduce the number of journeys being made for repairs and therefore a reduction in emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | Deprived areas<br>AQMAs |

#### 6.5.2.1 Recommendations

Amend the policies to include specific reference to:

- What sustainable materials will be used and what sustainable drainage systems will be implemented. For example, will this include retention ponds or vegetation alongside some transport routes or permeable paving on roads and/or pavements which will have supplementary improvements on air quality.

## 6.6 Objective 5: Embed a safe systems approach into all planning and transport operations to achieve Vision Zero – zero fatalities or serious injuries

As detailed in section 4.1, objective 5 has been assessed against:

- AO1: to enhance and improve accessibility and connectivity for all; and
- AO2: to increase the proportion of journeys made by public transport and active travel modes.

### 6.6.1 Policy theme 5.1: Safety for all – a safe systems approach

**Table 17: Policy theme 5.1 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Ensure funding for road safety education, training and campaigns across educational facilities, businesses and communities. | Helps to improve public safety and consequent public health through improved safety of the road network. | • Younger people<br>• Older people<br>• Disabled people<br>• Women | Deprived areas |
| Establish a road safety hub which aims to provide a single point of contact for road safety information and advice. | | | |

### 6.6.2 Policy theme 5.2: Ensuring transport security

**Table 18: Policy theme 5.2 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Address evening, night time and early morning safety issues by illuminating urban routes | Helps to improve public safety and consequent public health through increased feelings of personal safety | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas |
| Manage vegetation of planted areas appropriately to avoid high growing shrubs and bushes close to walkways, as they are often perceived as a hiding location | | | |
| Promote walking and cycling routes that are visible to passing traffic, houses and/or shops, rather than routes on isolated areas | | | |
| | Helps to prevent community severance and its associated impacts from occurring | | |
| Liaise with operators of railway stations, the British Transport Police and passenger and user groups regarding the location of street furniture and other assets (e.g. litter bins, bicycle racks, CCTV coverage) | Helps to improve public safety and consequent public health through increased feelings of personal safety | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas |
| | Helps to improve accessibility and safety of public transport stations, especially for people with mobility and visual impairments | • Older people<br>• Disabled people, specifically those with mobility and visual impairments | |
| Work with developers and other bodies, for example Network Rail, to ensure that public transport provision including stations /hubs at new developments are safe and usable alongside public transport operators, police, community safety partnerships, and passenger and user groups to tackle crime and anti-social behaviour at bus and rail stops/stations, and to reduce the perception and fear of crime, particularly for vulnerable groups | Helps to prevent community severance and its associated impacts from occurring in new developments | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas<br>New developments |
| | Helps to improve access to and accessibility of public transport | | |
| | Helps to improve public safety and consequent public health through increased feelings of personal safety | • Children and younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Muslims<br>• Women<br>• LGB individuals | Deprived areas |

#### 6.6.2.1 Recommendations

Amend the policies to include specific reference to:

- how the Combined Authority will work with public transport operators, police, community safety partnerships, and passenger and user groups to create public spaces where people feel comfortable at all times of day and night; and
- what kind of urban routes will be illuminated, for example will it be pedestrian or car routes.

## 6.7 Objective 6: Promote social inclusion through the provision of a sustainable transport network that is affordable and accessible for all

As detailed in section 4.1, objective 6 has been assessed against:

- AO1: to enhance and improve accessibility and connectivity for all; and
- AO2: to increase the proportion of journeys made by public transport and active travel modes.

### 6.7.1 Policy theme 6.1: Transport accessibility for all

**Table 19: Policy theme 6.1 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Monitoring the vehicle fleet used to provide transport for vulnerable children (those with special needs or who require social services). Monitoring includes if the vehicle is roadworthy and emission levels | Helps to ensure that the transport is safe for use by improved monitoring, reducing risk for passengers<br>Helps to improve air quality and consequently public health as a result of monitoring emissions | • Children<br>• Disabled people | AQMAs |
| Improving the quality and provision of accessible travel information using good design principles, digital infrastructure and a wider variety of platforms | Helps to improve access to public transport for those who currently experience difficulties due to a lack of accessible travel information | • Older people<br>• Disabled people<br>• People from a BAME background | |
| Working with public transport owners / operators and local government to promote accessibility improvements to transport infrastructure, and ensuring that such improvements are compliant with legislation (Equality Act, 2010)<br>Supporting travel training programmes that help people to travel independently on the public transport network | Helps to improve access to public transport for those who currently experience physical access barriers, opening up this mode of travel | • Older people<br>• Disabled people | |
| Facilitating access to education and wider mobility for vulnerable children (those with special needs or who require social services) and children that rely on community transport<br>Engaging with councils and NHS partners to identify how health care facilities can be more accessible by improving the location of bus stops and bus routes | Helps to improve accessibility, connectivity and reduce severance, particularly with access to educational and health care facilities | • Younger people<br>• Disabled people | Deprived areas |
| Ensuring new commercial and residential developments consider access to key services via accessible transport modes | Helps to improve accessibility, connectivity and reduce severance with regard to key services | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | Deprived areas |

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Supporting and promoting both community transport services and the accessibility of public transport | Helps encourage a modal shift away from the use of private vehicles, reducing emissions and consequently improving air quality and public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background | Deprived areas |

### 6.7.2 Policy theme 6.2: Transport pricing and affordability

**Table 20: Policy theme 6.2 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Making the public transport system more affordable by opposing inflation fare increases and maintaining the range of discounted tickets available | Helps to ensure that the public transport network is an affordable and viable mode of transport for everyone | • Young people<br>• People from a BAME background | Deprived areas |
| Introducing more flexible travel passes, for example, 'part-time' season tickets (for those who travel regularly, but not five days a week) | Helps those who work shifts to benefit from the savings that can be made from using a travel pass | • Young people<br>• Women | |
| Offering multi-modal tickets to make the system easier | Helps to reduce the complexity of the public transport ticketing system, making the process of purchasing a ticket less confusing | • Disabled people | |
| Creating a more inclusive transport system that is affordable, accessible and available enabling people to access key services and employment opportunities | Helps to improve accessibility, connectivity and reduce severance with regard to key services<br><br>Helps encourage a modal shift away from the use of private vehicles, reducing emissions and consequently improving air quality and public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | Deprived areas<br>AQMAs |

### 6.7.3 Policy theme 6.3: Access to education and key services

**Table 21: Policy theme 6.3 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Supporting travel training to help people travel independently that currently lack confidence using the public transport network | Helps to improve access to sustainable transport modes, ultimately improving both access to services and facilities and levels of social inclusion | • Older people<br>• Disabled people | |
| Supporting travel planning measures such as car share schemes | | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background | Deprived areas |
| Reviewing pre and post-16 education transport to ensure that the system supports those in need | Helps to improve access to education facilities and enhanced levels of social inclusion | • Children and younger people | |
| Providing financial support and free transport where needed to post-16 education for those in need | | | Deprived areas |
| Implementing interventions to support access to education for those with special educational needs | | • Disabled people who require support accessing education facilities | |
| Ensuring that new developments have access to key services via good transport infrastructure | Helps to improve access to key services and enhanced levels of social inclusion | • Children and younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas |
| Promoting digital inclusion by using digital infrastructure and technological solutions to help more people have access to information about key services online | | • Disabled people<br>• Older people | |
| Reviewing the levels of accessibility to key healthcare services and ensuring that new healthcare developments include transport infrastructure | Helps to improve access to healthcare services and enhanced levels of social inclusion | • Older people<br>• Disabled people<br>• Pregnant women | Deprived areas |
| Supporting travel planning activities to support healthy, greener travel choices for those accessing education sites | Helps to reduce emissions from vehicle journeys by encouraging active travel, minimising nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background | Deprived areas<br>AQMAs |

### 6.7.4 Policy theme 6.4: The future of mobility

**Table 22: Policy theme 6.4 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Provision of infrastructure for electric vehicles | Helps to reduce emissions from non-electric vehicle journeys and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | Deprived areas<br>AQMAs |

#### 6.7.4.1 Recommendations

Amend the policies to include specific reference to:

- assurances that information continues to be available in non-digital formats so that those without access to the internet do not experience social exclusion;
- assurances that accessible design features that will be adopted to improve accessibility of transport infrastructure and to ensure new developments are accessible;
- how travel training programmes, including the organisation(s) responsible, will be funded and the groups that will be targeted;
- deprived areas and pregnant women when mentioning the need to improve access to healthcare facilities;
- how information regarding new ideas (such as new ticket types and car sharing schemes) would be effectively communicated to the groups that would benefit most;
- the interventions that will be put in place help improve access pre and post-16 education; and
- how the policy will support travel planning activities including consideration of areas / schools within the region that currently experience traffic and congestion issues.

## 6.8 Objective 7: Provide 'healthy streets' and high-quality public realm that puts people first and promotes active lifestyles

As detailed in section 4.1, objective 7 has been assessed against:

- AO1: to enhance and improve accessibility and connectivity for all;
- AO2: to increase the proportion of journeys made by public transport and active travel modes; and
- AO5: to protect, connect and enhance the region's natural capital and the services and benefits it provide.

### 6.8.1 Policy theme 7.1: Public rights of way and waterways

**Table 23: Policy theme 7.1 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Enhancement and improvement of PRoW through the adoption of an aligned policy between both Councils and the Local Highway Authority | Helps to improve public safety and consequent public health through reduced risks with motor and rail traffic | • Children and younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Men<br>• Women | Deprived areas |
| | Helps to improve public health overall through increased physical activity associated with increased use of PRoW | • Older people<br>• People from a BAME background<br>• Women | |
| | Helps to improve access to public and sustainable transport through the removal of barrier such as uneven surfaces and lack of dropped kerbs of PRoW routes | • Older people<br>• Disabled people | |
| | Helps to improve public health overall through increased access to green space through the improved accessibility of PRoW routes | | |
| Ensuring new developments do not damage (and possibly improve) existing PRoW | Helps to prevent community severance and its associated impacts from occurring in new developments | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas<br>New developments |
| | Helps to ensure access to services, facilities and communities including health, education and employment for those in new developments | | |

### 6.8.2 Policy theme 7.2: Promoting and raising awareness of sustainable transport options

**Table 24: Policy theme 7.2 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Support bike loan schemes and programmes | Helps to improve access to services, facilities and communities including health, education and employment | • Older people<br>• People from a BAME background<br>• Women | Deprived areas<br>AQMAs |
| | Helps to improve public health overall through increased physical activity | | |
| | Helps to improve access to active transport for those who currently less likely to have access to a bike | | |
| | Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | |
| Tackle the perceptions and barriers of cycling as a mode of transport via a marketing campaign | Helps to improve access to cycling as a mode of active travel for those who currently experience barriers as a result of their perceptions of cycling as a mode of transport | • People from a BAME background | Deprived areas |
| Promotion of car sharing schemes and car clubs | Helps to improve access to services, facilities and communities including health, education and employment services | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas |
| Promotion of bike loan schemes may not adequately target those who are less likely to have access to a bike | Experience inequality and inaccessibility | • Older people<br>• People from a BAME background | Deprived areas |

### 6.8.3 Policy theme 7.3: Supporting and promoting health and wellbeing

**Table 25: Policy theme 7.3 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Ensure walking and cycling networks are comprehensive, connecting residential areas to key sites of employment, education, leisure and open space and are safe and attractive for all users. | Helps to improve access to services, facilities and communities including health, education and employment<br>Helps to improve public health overall through increased physical activity | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | Deprived areas<br>AQMAs |
| Ensure walking and cycling are given the highest priority when developing streets and roads. | Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health<br>Helps to prevent community severance and its associated impacts from occurring | | |

#### 6.8.3.1 Recommendations

Amend the policies to include specific reference to:

- the accessible design features that will be adopted to improve accessibility of PRoW, such as tactile paving, use of colour contrast and positioning of street furniture (including resting points);
- the mitigative actions that would take place should the risk of motor and rail traffic be deemed high enough and the associated assessment methodology;
- green space and its ability to improve health and wellbeing, building on the policy's current commitment to demonstrating the health benefits of walking;
- how bike sharing / loan schemes and car sharing / car clubs would work in practice, including targeting groups that are least likely to currently own a bike and / or car;
- how all information will be provided in an accessible and inclusive format, and methods that will be used to effectively communicate information to users. For example, consideration should be given to making information 'child-friendly', available in multiple languages and offered in an easy-read format; and
- how the described policies will deliver their desired aims in practice.

## 6.9 Objective 8: Ensure transport initiatives improve air quality across the region to exceed good practice standards

As detailed in section 4.1, objective 8 has been assessed against:

- AO2: to increase the proportion of journeys made by public transport and active travel modes.

### 6.9.1 Policy theme 8.1: Improving air quality

**Table 26: Policy theme 8.1 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Investigate the potential for a Clean Air Zone in Cambridge City Centre | Potential to penalise private transport users, pushing them to choose modes of transport where they may not currently feel safe or where there is an increased risk of crime | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Muslims<br>• Transgender individuals<br>• LGB individuals | Deprived areas<br>AQMAs |
| | Helps to reduce private vehicle journeys and therefore a reduction in emissions and minimise nitrogen dioxide concentrations, improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background | |
| Develop licencing conditions that require taxis to be ultra-low or zero emission by a specific date | Experience inequality and inaccessibility as there are currently only a few ultra-low emission vehicle taxis that are wheelchair accessible. | • Older people who use a wheelchair<br>• Disabled people who use a wheelchair | Deprived areas<br>AQMAs |
| Implement minimum bus quality standards through Enhanced Bus Partnerships that relate to air quality e.g. emission standards for vehicle fleets | Helps to reduce emissions and therefore a reduction in emissions and minimise nitrogen dioxide concentrations, improving air quality and consequently public health | • Younger people<br>• Older people<br>• Disabled people<br>• People with pre-existing health conditions<br>• Pregnant women<br>• People from a BAME background | Cambridge City Centre<br>Deprived areas<br>AQMAs |
| Deliver residential, non-residential and taxi-only electric charging infrastructure | Helps to improve access to sustainable transport | | |
| Incentivise cycling delivery for appropriate services | Helps to reduce private vehicle journeys/increase low emission journeys and reduce emissions and minimise nitrogen dioxide concentrations, improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• People with pre-existing health conditions<br>• Pregnant women<br>• People from a BAME background | Deprived areas<br>AQMAs |
| Procure low emission vehicles for the Combined Authority's fleet | | | |

#### 6.9.1.1 Recommendations

Amend the policies to include specific reference to:

- assurances that public transport infrastructure will be improved to minimise crime or criminal activity and maximise feelings of public safety; and a firmer commitment to creating spaces where people feel comfortable at all times of day and night;
- whether public information campaigns about the health impacts of air pollution will be designed as push or pull measures; and
- an explanation of a Green Travel Area and the measures to be implemented under this.

## 6.10 Objective 9: Deliver a transport network that protects and enhances our natural, historic and built environments

As detailed in section 4.1, LTP objective 9 has been assessed against:

- AO5: to protect, connect and enhance the region's natural capital and the services and benefits it provide.

### 6.10.1 Policy theme 9.1: Protecting our natural environment

**Table 27: Policy theme 9.1 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Provide environmentally sustainable access to the natural environment for both local residents and visitors, in both rural and urban settings. | Helps to improve physical health overall though increased physical activity due to improved access to natural environment and active travel | • Older people<br>• People from a BAME background<br>• Women | Deprived areas |
| Ensure that all stages of planning and designing transport initiatives, services, operations and management actively protect and enhance the natural environment | Helps to reduce travel via vehicles and potential increase in vegetation cover could reduce emissions and minimise nitrogen dioxide concentrations, improving air quality and consequently public health | • Children and younger people<br>• Disabled people<br>• People with pre-existing health conditions<br>• Pregnant women<br>• People from a BAME background | |
| Improve existing and develop new PRoW and green infrastructure and ensure its integration into the wider transport network | | | |

### 6.10.2 Policy theme 9.2: Enhancing our built environments and protecting our historic environments

**Table 28: Policy theme 9.2 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Remove street clutter as part of development and maintenance schedules | Helps to improve accessibility and safety on streets, especially for people with mobility and visual impairments | • Older people<br>• Disabled people specifically those with mobility and visual impairments | Deprived areas<br>Public open spaces / squares |
| Consider how the existing built environment needs to be adapted for, and new development needs to consider, the needs of an aging population | Helps to improve accessibility of all modes of transport | • Older people | Deprived areas<br>New developments |
| | Helps to prevent community severance and its associated impacts from occurring in new development and reduce the impact in existing communities | | |
| | Helps to improve access to services, facilities and communities including health, education and employment | | |

#### 6.10.2.1 Recommendations

Amend the policies to include specific reference to:

- how access to the natural environment will be made accessible for all, for example via the provision of ramps and footpaths for people with mobility impairments.

## 6.11 Objective 10: Reduce emissions to as close to zero as possible to minimise the impact of transport and travel on climate change

As detailed in section 4.1, objective 10 has been assessed against:

- AO2: to increase the proportion of journeys made by public transport and active travel modes.

### 6.11.1 Policy theme 10.1: Reducing the carbon emissions from travel

**Table 29: Policy theme 10.1 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Enhancement and improvement cycleways and bridleway networks | Helps to improve access through sustainable transport to services, facilities and communities including health, education and employment | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas<br>AQMAs |
| | Helps to improve public health overall through increased physical activity associated with improved cycleways and bridleway networks | • Older people<br>• People from a BAME background<br>• Women | |
| | Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | |
| Implementation of additional sustainable transport methods and measures for low emission petrol hybrid and ultra-low emission electric vehicles. For example, priority parking for electric vehicles and creating publicly available maps that show the locations of charging points | Helps to improve access to public and sustainable transport | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | Deprived areas<br>AQMAs |
| | Helps to reduce emissions and minimise nitrogen dioxide concentrations associated with private vehicle journeys improving air quality and consequently public health | | |

#### 6.11.1.1 Recommendations

Amend the policies to include specific reference to:

- how the Combined Authority will support the Local Authority partners to reduce emissions, for example, via financial support or expertise.

## 6.12 Modal policies

As detailed in section 4.1, the Modal policies have been assessed against:

- AO1: to enhance and improve accessibility and connectivity for all;
- AO2: increase the proportion of journeys made by public transport and active travel modes;
- AO3: strengthen the area's position as a growing and diverse economy, providing opportunities for all; and
- AO5: protect, connect and enhance the region's natural capital and the services and benefits it provide.

### 6.12.1 Policy theme 11: Walking

**Table 30: Policy theme 11 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Application of good design principles to create a pedestrian environment that is accessible and inclusive for all users, and that ensures connectivity to key destination and sustainable transport options | Helps to improve access to services, facilities and communities including health, education and employment | • Older people<br>• Disabled people | Deprived areas<br>AQMAs |
| | Helps to improve public health overall through increased physical activity | | |
| | Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | |
| | Helps to improve access to public and sustainable transport | | |
| Improving walking infrastructure to better link the local community with key destinations (including public transport) | Helps to improve access to services, facilities and communities including health, education and employment | • Younger people<br>• Older people<br>• People from a BAME background<br>• Women | |
| | Helps to improve public health overall through increased physical activity | | |
| | Helps to increase access to active transport | | |
| | Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | Deprived areas<br>AQMAs |

| | | |
|---|---|---|
| Promotion of walking as a safe alternative to car use for shorter journeys | Helps to improve public safety and consequent public health through increased feelings of personal safety due to increased 'eyes on the street' | • Younger people<br>• Older people<br>• Disabled people<br>• Women |

### 6.12.2 Policy theme 12: Cycling

**Table 31: Policy theme 12 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Enhancement and improvements to the cycle network across the whole of the CPCA including high quality cycle network links to public transport | Helps to improve public health overall through increased physical activity | • Younger people<br>• Older people<br>• People from a BAME background<br>• Women | Deprived areas<br>AQMAs |
| | Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | |
| | Helps to improve access to services, facilities and communities including health, education and employment | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | |
| Introduction of segregated cycleways and the reduction of vehicle speed limits | Helps to improve feelings of public safety and consequent public health through increased use of active travel | • Older people<br>• Women | |
| Support community-led cycling projects that promote cycling among groups that are traditionally under-represented, including women, people from a BAME background and disabled people | Helps to increase access to active transport for those who are currently less likely to use cycling as a mode of transport | • Disabled people<br>• People from a BAME background<br>• Women | Deprived areas |
| Support bike share schemes | Helps to improve access to services, facilities and communities including health, education and employment | • Older people<br>• People from a BAME background | Deprived areas<br>AQMAs |

| | | |
|---|---|---|
| | Helps to improve public health overall through increased physical activity | • Women |
| | Helps to increase access to active transport for those who are currently less likely to have access to a bike | |
| | Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women |

### 6.12.3 Policy theme 13: Delivering a seamless public transport system

**Table 32: Policy theme 13 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Increase affordability of public transport through the introduction of a clearer simpler ticket system with a range of ticket options | Helps to improve access to services, facilities and communities including health, education and employment | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas<br>AQMAs |
| | Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | |
| Improved connections to urban areas through multi-modal transport hubs. | Helps to improve access to services, facilities and communities including health, education and employment | • Younger people<br>Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas<br>AQMAs |

| | | | |
|---|---|---|---|
| | Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | |
| Risk of experiencing inaccessibility and severance from the introduction of smart only ticketing systems due to financial exclusion | Experience inequality and inaccessibility | • Younger people<br>• Older people<br>• Disabled people | Deprived areas |

### 6.12.4 Policy theme 14: Rural transport services

**Table 33: Policy theme 14 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Use a Bus Reform Task Force to ensure local communities have the opportunity to influence and inform the routes and services provided in their area | Helps to improve access to services, facilities and communities including health, education and employment and a consequent reduction in social isolation acutely felt in rural areas | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas<br>Rural areas<br>AQMAs |
| Introduction of bus priority measures, dedicated core services and improved public transport | | | |
| | Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | |
| Support and expansion of community transport to bridge gaps in public transport | Helps to improve access to services, facilities and communities including health, education and employment and a consequent reduction in social isolation acutely felt in rural areas | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas<br>Rural areas<br>AQMAs |

| | | |
|---|---|---|
| | Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women |

### 6.12.5 Policy theme 15: Improving public transport in our towns and cities

**Table 34: Policy theme 15 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Improved local walking and cycling infrastructure | Helps to improve feelings of public safety and consequent public health through increased use of active travel | • Younger people<br>• Older people<br>• Women | Deprived areas<br>Cambridge<br>Peterborough |
| | Helps to improve public health overall through increased physical activity | • Younger people<br>• Older people<br>• People from a BAME background<br>• Women | |
| Improvements to mass transit infrastructure, increased frequency of buses and measures to manage road demand | Helps to improve access to services, facilities and communities including health, education and employment found in urban areas such as Cambridge and Peterborough which are both areas of high-density employment. | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas<br>Cambridge<br>Peterborough<br>AQMAs |
| | Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | |
| Introduction of push measures (such as controlled parking zones, a workplace parking levy, or a pollution/congestion charge) to encourage modal shift | Helps to increase feelings of or risk of becoming a victim of crime | • Children and younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Muslims | Deprived areas<br>Cambridge<br>Peterborough |

| | | | |
|---|---|---|---|
| | | • Transgender individuals<br>• LGB individuals | |

### 6.12.6 Policy theme 16: Travelling by coach

**Table 35: Policy theme 16 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Improved coach pick up and drop off infrastructure. | Helps to improve feelings of public safety and improved road safety | • Younger people<br>• Older people<br>• Disabled people | Deprived areas |
| Improved service frequency due to on demand services and the elimination of walk and wait | Helps to improve access to public and sustainable transport | • Older people<br>• Disabled people | Deprived areas<br>AQMAs |
| | Helps to improve access to services, facilities and communities including health, education and employment | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | |
| | Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | |

### 6.12.7 Policy theme 17: Travelling by train

**Table 36: Policy theme 17 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Expansion of the rail network linking new settlements, corridors and growth areas | Helps to improve access to public and sustainable transport | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Alconbury Weald<br>Deprived areas<br>Peterborough South<br>Soham<br>Waterbeach<br>Wisbech<br>AQMAs |
| | Helps to improve access to services, facilities and communities including health, education and employment | | |
| | Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | |
| | Risk of community severance by the expansion of the rail network and development of new stations | • Younger people<br>• Older people<br>• Disabled people<br>People from a BAME background<br>• Women | |
| | Localised increase in nitrogen dioxide concentrations as rail stations act as a trip attractor | • Younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | |
| Improvements to station facilities | Helps to improve access to public and sustainable transport | • Disabled people<br>• Pregnant women | Deprived areas<br>Manea<br>March<br>Peterborough |

### 6.12.8 Policy theme 18: The local road network

**Table 37: Policy theme 18 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Alignment of maintenance policies and a reduction in the number of private vehicles on the road network | Helps to improve public safety and consequent public health through increased road safety | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | Deprived areas |
| Introduction of push measures (reallocating road space to public transport, increasing enforcement and introducing levies and charging) to encourage modal shift | Helps to improve access to public and sustainable transport | • Younger people<br>• Older people<br>• Disabled people | Deprived areas<br>AQMAs |
| | Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | |
| | Helps to increase feelings of or risk of becoming a victim of crime | • Children and younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Muslims<br>• Transgender individuals<br>• LGB individuals | |

### 6.12.9 Policy theme 19: Parking

**Table 38: Policy theme 19 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Introduction of push measures (such as such as parking subsidy for ultra-low emissions vehicles) to encourage modal or vehicle shift | Experience inequality and inaccessibility due to inability to afford ultra-low emission vehicles | • Younger people<br>• Women | Deprived areas |
| | Helps to increase feelings of or risk of becoming a victim of crime | • Children and younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Muslims<br>• Transgender individuals<br>• LGB individuals | |
| | Experience inequality and inaccessibility as there is currently lack of affordable disabled access or wheelchair accessible ultra-low emissions vehicles | • Disabled people | |
| Implementation of additional sustainable transport methods and measures for low emission petrol hybrid and ultra-low emission electric vehicles | Helps to improve access to public and sustainable transport | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | Deprived areas |
| | Helps to reduce emissions and minimise nitrogen dioxide concentrations associated with private vehicle journeys improving air quality and consequently public health | | |
| | Experience inequality and inaccessibility as there is currently lack of affordable disabled access or wheelchair accessible ultra-low emissions vehicles | • Disabled people | |
| Reallocation of car parking spaces to green space | Helps to increase physical health overall though improved access to natural environment and active travel | • Younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | Deprived areas |

### 6.12.10 Policy theme 20: Making long-distance journeys by car

**Table 39: Policy theme 20 impacts**

| Policy content | Potential impacts | Potentially affected groups | Spatial consideration |
|---|---|---|---|
| Improve the highway network, by increasing the frequency of key routes and reducing journey times through dualling highly congested A roads. | Helps to reduce idling and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | Cambridge<br>Deprived areas<br>Fens<br>Peterborough<br>Waterbeach<br>Whittlesey<br>AQMAs |
| | Risk of community severance by the widening of road infrastructure | | |
| Develop new road corridors to support development and housing growth by delivering a third river crossing at Huntingdon | Helps to reduce idling and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | Deprived areas<br>Huntingdon<br>AQMAs |
| | Helps to improve access to services, facilities and communities including health, education and employment | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | |

#### 6.12.10.1 Recommendations

Amend the policies to include specific reference to:

- assurances that any new or improved public transport infrastructure is designed to minimise crime or criminal activity and maximise feelings of public safety; and a firmer commitment to creating spaces where people feel comfortable at all times of day and night to increase ‘eyes on the street’;
- assurances that there will be improvements to the accessibility and inclusivity of transport infrastructure, information provision and vehicles for disabled passengers;
- methods for how the rail network will remain in capacity through future growth scenarios;
- mitigations to the affordability inequalities on rail travel through ticketing schemes;
- mitigations for negative impacts to air quality caused by the construction of new infrastructure and increase in private vehicular trips on local road networks, including Construction Management Plans, Station Travel Plans and parking restrictions surrounding stations;
- how the findings of public engagement will be used to address any identified inequalities;

- the importance of green space and its potential benefits for health and wellbeing;
- measures that will be used to ensure a safe walking environment, or the which principles of accessibility and good design;
- how bike share schemes will target those who are less likely to have access to a bike; and
- improvements to signage on the road network where there are likely to be cyclists present.

## 6.13 Protected characteristic group summary

The below table describes the geographic areas of higher proportions or higher density of protected characteristic groups that have been identified above as potentially being impacted by the policy themes of the LTP.

**Table 40: Summary group**

| Protected characteristic or equality group | Geographic areas of higher proportions or higher density | |
|---|---|---|
| Children and younger people | • Cambridge<br>• Ely<br>• Huntingdon | • Peterborough<br>• Wisbech |
| Younger people | • Cambridge | • Peterborough |
| Older people | • Cambridge<br>• Ely<br>• Fenland<br>• Huntingdon | • March<br>• Peterborough<br>• St Ives<br>• Wisbech |
| Disabled people | • Cambridge<br>• Fenland | • Peterborough |
| Pregnant women | • Cambridge | |
| People from a BAME background | • Cambridge<br>• Huntingdon | • Peterborough |
| Muslims | • Peterborough | |
| Deprived areas | • Cambridge<br>• Fenland<br>• Huntingdon | • March<br>• Peterborough<br>• St Neots |

# 7 Conclusions and recommendations

## 7.1 Summary conclusions

The LTP has the potential to provide and improve equality and health of the communities in Cambridgeshire and Peterborough. The LTP includes a number of policies that are likely to transform the transportation of Cambridgeshire and Peterborough.

There is, therefore, a compelling case for the delivery of this LTP. This must be weighed against the acknowledged potential disbenefits set out above. In this case, the Combined Authority, should seek to mitigate these through inclusion of amendments to the wording and language of the LTP.

Table 40 below summaries the potential impacts on the different groups in the Combined Authority and the proposed mitigations and recommendations. The impacted geographies have been informed by the socio-demographic profiles of the districts and areas specifically mentioned in the policies.

**Table 41: Impact summary and recommendations**

| Local transport plan objective | Potential health and equality impacts | Potentially affected groups | Potentially affected geographies | Recommendations |
|---|---|---|---|---|
| Objective 1: Support new housing and development to accommodate a growing population and workforce, and address housing affordability issues | • Helps to achieve improvements to accessibility, connectivity and reduce severance including the holistic health benefits of greater access and reduced social isolation.<br>• Helps to facilitate housing that meets the needs of the population including benefits to public health. | • Younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Women | New developments in:<br>• Deprived areas<br>• New developments<br>• Urban areas<br>In particular:<br>• Alconbury<br>• Cambridge<br>• Cambridge South<br>• Cambridgeshire<br>• Ely<br>• Fenland<br>• Huntingdon<br>• March<br>• Peterborough<br>• Soham<br>• St Ives<br>• St Neots<br>• Walton | • Any new developments should be designed to be integrated into an inclusive transport network. |

| Local transport plan objective | Potential health and equality impacts | Potentially affected groups | Potentially affected geographies | Recommendations |
|---|---|---|---|---|
| | | | • Wisbech<br>• Wisbech | |
| Objective 2: Connect all new and existing communities sustainably so all residents can easily access a good job, spreading the region's prosperity | • Helps to reduce the health impacts of exposure to particulates and nitrogen dioxide concentrations.<br>• Helps to achieve improvements to accessibility, connectivity and reduce severance including the holistic health benefits of greater access and reduced social isolation.<br>• Helps to facilitate housing that meets the needs of the population including benefits to public health.<br>• Helps to reduce overall unemployment, by removing barriers, improving resilience and enabling growth. | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | • AQMAs<br>• Deprived areas<br>• New developments<br>• Urban areas<br>In particular:<br>• Cambridge<br>• Ely<br>• Fenland<br>• Huntingdon<br>• March<br>• Peterborough<br>• St Ives<br>• St Neots<br>• Wisbech | • Ensure transport infrastructure is created in a safe and accessible way to those with mobility issues. |
| Objective 3: Ensure all of our region's businesses and tourist attractions are connected sustainably to our main transport hubs, ports and airports | • Helps to reduce the health impacts of exposure to particulates and nitrogen dioxide concentrations.<br>• Helps to achieve improvements to accessibility, connectivity and reduce severance including the holistic health benefits of greater access and reduced social isolation.<br>• Helps to achieve improved access to sustainable transport modes including the health benefits of increased active transport.<br>• Helps to reduce overall unemployment, by removing barriers, improving resilience and enabling growth. | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | • AQMAs<br>• Deprived areas<br>• Rural areas<br>• Urban areas<br>In particular:<br>• Cambridge<br>• Ely<br>• Fenland<br>• Huntingdon<br>• March<br>• Peterborough<br>• St Ives<br>• St Neots<br>• Wisbech | • Include specific commitments to how facilities at train stations would be improved for all users improving door-to-door connectivity.<br>• Commit to the provision of real-time information in accessible formats. |

| Local transport plan objective | Potential health and equality impacts | Potentially affected groups | Potentially affected geographies | Recommendations |
|---|---|---|---|---|
| Objective 4: Build a transport network that is resilient and adaptive to human and environmental disruption, improving journey time reliability | • Helps to reduce the health impacts of exposure to particulates and nitrogen dioxide concentrations.<br>• Helps to achieve improvements to accessibility, connectivity and reduce severance including the holistic health benefits of greater access and reduced social isolation.<br>• Helps to achieve improved access to sustainable transport modes including the health benefits of increased active transport.<br>• Helps to create a travel environment that is and feels safe. | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Muslims<br>• Women<br>• LGB individuals | • Urban areas<br>• AQMAs<br>• Deprived areas<br>In particular:<br>• Peterborough<br>• Cambridge<br>• Huntingdon<br>• Wisbech<br>• Ely<br>• Fenland<br>• March<br>• St Ives<br>• St Neots | • Include specific reference to what sustainable materials will be used and what sustainable drainage systems will be implemented as those that include vegetation might improve air quality. |
| Objective 5: Embed a safe systems approach into all planning and transport operations to achieve Vision Zero – zero fatalities or serious injuries | • Helps to achieve improvements to accessibility, connectivity and reduce severance including the holistic health benefits of greater access and reduced social isolation.<br>• Helps to achieve improved access to sustainable transport modes including the health benefits of increased active transport.<br>• Helps to create a travel environment that is and feels safe for all users, day and night. | • Children and younger people<br>• Older people<br>• Disabled people<br>• People from a BAME background<br>• Muslims<br>• Women<br>• LGB individuals | • Urban areas<br>• AQMAs<br>• Deprived areas<br>In particular:<br>• Peterborough<br>• Cambridge<br>• Huntingdon<br>• Wisbech<br>• Ely<br>• Fenland<br>• March<br>• St Ives<br>• St Neots | • Include specific reference to how public spaces will be designed to allow people to feel comfortable in the day and at night.<br>• Include the kind of urban routes that will be illuminated, for example will it be pedestrian or car routes. |

| Local transport plan objective | Potential health and equality impacts | Potentially affected groups | Potentially affected geographies | Recommendations |
|---|---|---|---|---|
| Objective 6: Promote social inclusion through the provision of a sustainable transport network that is affordable and accessible for all | • Helps to reduce the health impacts of exposure to particulates and nitrogen dioxide concentrations.<br>• Helps to achieve improvements to accessibility, connectivity and reduce severance including the holistic health benefits of greater access and reduced social isolation.<br>• Helps to achieve improved access to sustainable transport modes including the health benefits of increased active transport.<br>• Helps to create a travel environment that is and feels safe. | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | • AQMAs<br>• New developments<br>• Urban areas<br>In particular:<br>• Peterborough<br>• Cambridge<br>• Huntingdon<br>• Wisbech<br>• Ely<br>• Fenland<br>• March<br>• St Ives<br>• St Neots | • Commit to the continued provision of information in non-digital and accessible formats.<br>• Include accessible design features to improve accessibility of transport infrastructure and to ensure new developments are accessible.<br>• Include specific reference to older people, disabled people, pregnant women and deprived areas, when mentioning the need to improve access to healthcare facilities.<br>• Describe the interventions that will be implemented to help improve access to pre and post-16 education. |
| Objective 7: Provide 'healthy streets' and high-quality public realm that puts people first and promotes active lifestyles | • Helps to reduce the health impacts of exposure to particulates and nitrogen dioxide concentrations.<br>• Helps to achieve improvements to accessibility, connectivity and reduce severance including the holistic health benefits of greater access and reduced social isolation.<br>• Helps to achieve improved access to sustainable transport modes including the health benefits of increased active transport.<br>• Helps to address deficiencies in green spaces<br>• Helps to create a travel environment that is and feels safe. | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Men<br>• Women | • AQMAs<br>• Deprived areas<br>• New developments<br>• Urban areas<br>In particular:<br>• Peterborough<br>• Cambridge<br>• Huntingdon<br>• Wisbech<br>• Ely<br>• Fenland<br>• March<br>• St Ives<br>• St Neots | • Describe the accessible design features that will be adopted to improve accessibility of PRoW.<br>• Describe the mitigative actions that would take place should the risk of motor and rail traffic be deemed high enough for walking and cycling routes.<br>• Incorporate the provision of green space and reference its ability to improve health and wellbeing.<br>• Commit to the continued provision of information in non-digital and accessible formats for instance both audio and visual. |

| Local transport plan objective | Potential health and equality impacts | Potentially affected groups | Potentially affected geographies | Recommendations |
|---|---|---|---|---|
| Objective 8: Ensure transport initiatives improve air quality across the region to exceed good practice standards | • Helps to reduce the health impacts of exposure to particulates and nitrogen dioxide concentrations.<br>• Helps to achieve improvements to accessibility, connectivity and reduce severance including the holistic health benefits of greater access and reduced social isolation.<br>• Increases the risk of a travel environment that is not, or does not feel, safe through the promotion of push measures that may force people to use public transport. | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Muslims<br>• Transgender individuals<br>• LGB individuals | • AQMAs<br>• Deprived areas<br>• Urban areas<br>In particular:<br>• Peterborough<br>• Cambridge<br>• Cambridge City Centre<br>• Huntingdon<br>• Wisbech<br>• Ely<br>• Fenland<br>• March<br>• St Ives<br>• St Neots | • Include commitments that public transport infrastructure will be improved to minimise crime or criminal activity and maximise feelings of public safety.<br>• Explain whether public information campaigns about the health impacts of air pollution will be designed as push or pull measures.<br>• Explain a Green Travel Area and the measures to be implemented under this. |
| Objective 9: Deliver a transport network that protects and enhances our natural, historic and built environments | • Helps to reduce the health impacts of exposure to particulates and nitrogen dioxide concentrations.<br>• Helps to address deficiencies in green spaces | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | • AQMAs<br>• Deprived areas<br>• New developments<br>• Public open spaces/squares<br>• Urban areas<br>In particular:<br>• Peterborough<br>• Cambridge<br>• Cambridge City Centre<br>• Huntingdon<br>• Wisbech<br>• Ely<br>• Fenland<br>• March<br>• St Ives<br>• St Neots | • Explain how access to the natural environment will be made accessible for all. |

| Local transport plan objective | Potential health and equality impacts | Potentially affected groups | Potentially affected geographies | Recommendations |
|---|---|---|---|---|
| Objective 10: Reduce emissions to as close to zero as possible to minimise the impact of transport and travel on climate change | • Helps to reduce the health impacts of exposure to particulates and nitrogen dioxide concentrations.<br>• Helps to achieve improved access to sustainable transport modes including the health benefits of increased active transport. | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Women | • AQMAs<br>• Deprived areas<br>• Urban areas<br>In particular:<br>• Peterborough<br>• Cambridge<br>• Cambridge City Centre<br>• Huntingdon<br>• Wisbech<br>• Ely<br>• Fenland<br>• March<br>• St Ives<br>• St Neots | • Explain how the Combined Authority will work with the Local Authority partners to reduce emissions. |
| Modal policies | • Helps to reduce the health impacts of exposure to particulates and nitrogen dioxide concentrations.<br>• Helps to achieve improvements to accessibility, connectivity and reduce severance including the holistic health benefits of greater access and reduced social isolation.<br>• Helps to achieve improved access to sustainable transport modes including the health benefits of increased active transport.<br>• Helps to reduce overall unemployment, by removing barriers, improving resilience and enabling growth.<br>• Helps to address deficiencies in green spaces<br>• Helps to create a travel environment that is and feels safe. | • Children and younger people<br>• Older people<br>• Disabled people<br>• Pregnant women<br>• People from a BAME background<br>• Muslims<br>• Women<br>• Transgender individuals<br>• LGB individuals | • Rural areas<br>• AQMAs<br>• Urban areas<br>• Deprived areas<br>In particular:<br>• Alconbury Weald<br>• Cambridge<br>• Cambridge City Centre<br>• Ely<br>• Fenland<br>• Fens<br>• Huntingdon<br>• Manea<br>• March<br>• Peterborough<br>• Peterborough South<br>• Soham<br>• St Ives<br>• St Neots | • Include assurances that public transport infrastructure will be improved to minimise crime or criminal activity and maximise feelings of public safety.<br>• Improve the accessibility and inclusivity of transport infrastructure, information provision and vehicles for disabled passengers.<br>• Incorporate the provision of green space and reference its ability to improve health and wellbeing.<br>• Include measures that will be used to ensure a safe walking environment, or the which principles of accessibility and good design. |

| Local transport plan objective | Potential health and equality impacts | Potentially affected groups | Potentially affected geographies | Recommendations |
|---|---|---|---|---|
| | • Increases the risk of a travel environment that is, not or does not feel, safe through the promotion of push measures that may force people to use public transport. | | • Waterbeach<br>• Whittlesey<br>• Wisbech | |

# Appendices

# A. Assessment guide evidence base

This appendix sets out the findings of the desk-based review process, providing a literature review of the potential impacts of the LTP against the assessment guide questions on people with protected characteristics and public health.

## A.1 Reduce the number of people, particularly the vulnerable, exposed to particulates and nitrogen dioxide concentrations, helping to achieve national and international standards for air quality and reduce carbon emissions?

There is a direct relationship between health, air quality and transport infrastructure.[7] Research undertaken by the Royal College of Physicians estimates that 40,000 deaths every year in the UK are attributable to exposure to outdoor air pollution.[8] According to the Department for Environment, Food and Rural Affairs (DEFRA), "poor air quality is currently the largest environmental risk to public health in the UK".[9]

The concentration of air pollutants tends to be highest in towns and cities. Road transport is a major source of emissions such as nitrogen oxide ($NO_x$) (35% of total) and particulate matter (PM) (12% of total).[10] Both diesel and petrol vehicles emit these pollutants through engine emissions and friction between their brake pads and tyres on the road. Petrol vehicles emit higher levels of $CO_2$ than diesel but lower levels of $NO_x$. Debates are ongoing with regard to which fuel is the cleanest, but there is agreement that in the long-term, electric cars will offer the greatest chance of reducing air pollution.[11]

There are a range of national and international standards, objectives, targets and limits for air quality, which tend to be legally binding. These either control emissions at source or set ambient air pollution restrictions. At a national level the Environmental Act 1995 requires local authorities in the UK to review air quality in their area and designate Air Quality Management Areas (AQMAs) if improvements are necessary. There are currently seven AQMAs within the Combined Authority with the main pollutants of concern particulate matter (PM) and nitrous oxides (NOx). Data from air quality reports shows that all AQMAs were compliant as of 2018.[12]

### A.1.1 Issues caused by air pollution

Harmful air pollutants such as particulate matter, nitrogen oxide and sulphur dioxide can impact human heath in a variety of ways in both the short and long term. Research suggests that air pollution can aggravate and worsen existing cardiovascular, respiratory and allergy-related conditions such as asthma.[13] Air pollution can also lead to the development of new conditions

[7] WHO (2013): 'Review of evidence on health aspects of air pollution (REVIHAAP) project: Technical report'
[8] Royal College of Physicians (2016): 'Every breath we take: The lifelong impact of air pollution'
[9] DEFRA (2018): 'Clean air strategy'
[10] DEFRA (2019): 'Air quality: Explaining air pollution – at a glance'
[11] Air Quality (date unknown): 'Air pollution emissions in the UK'
[12] Cambridge City Council (2018): 'Air quality annual status report'; East Cambridgeshire District Council (2018): 'Air quality annual status report'; Peterborough City Council (2018): 'Air quality annual status report'
[13] British Lung Foundation (2017): 'Types of air pollution'; British Lung Foundation (2017): 'What are the effects of air pollution on your lungs?'; NHS (2015): 'Lung cancer'; Public Health England (2018): 'Health matters: Air pollution'; The Committee on the Medical Effects of Air Pollutants (2006): 'Cardiovascular disease and air pollution'; The Committee on the Medical Effects of Air Pollutants (2018): 'The effects of long-term exposure to ambient air pollution on cardiovascular morbidity: Mechanistic evidence'

including pneumonia and cancer, and ultimately reduce life expectancy.[14] Emerging research suggests that air pollution might also affect the brain and could be linked to dementia and cognitive decline.[15]

Research suggests that the exact health impacts of air pollution are highly variable according to the mixture and concentration of pollutants in the air. For example, particulate matter can pose higher health risks than gaseous air pollutants. Air pollution is measured in terms of the diameter of the particulate matter (PM) in the atmosphere, with the larger the number the larger the particle. PM10 can cause nasal and upper respiratory tract health problems, while PM2.5 can penetrate deeply into the lungs causing and contributing to many health problems including heart attacks, strokes, asthma, lung and heart disease bronchitis, and lung and heart cancer.[16]

Research indicates that the magnitude of the impact of air pollution varies according to the duration of exposure and the sensitivity of the individual concerned.[17] Although air pollution affects everyone, people with protected characteristics are more likely to be disproportionately exposed to air pollution and suffer disproportionate affects when exposed to air pollution, as discussed below.[18]

### Age: children and younger people

The impacts of air pollution on children and young people are not always evident immediately and can appear or contribute to health problems later in life, especially with long term exposure.[19] For example, Nitrogen Dioxide, particulates and Ozone have been found to aggravate and worsen existing respiratory conditions in children, particularly asthma and they also affect children's' lung development.[20]

Research by the NHS suggests that poor air quality can cause pneumonia, which can be more severe in children and young adults compared to people of other ages.[21]

No robust evidence currently exists to suggest that exposure to air pollution during childhood causes cardiovascular disease later in life. However, it has been found that in children, changes in the functioning of the cardiovascular system are evident after exposure to air pollution.[22]

### Age: older people

Research has shown that older people are also disproportionality affected by air pollution as they are more likely to have pre-existing health conditions than people of other ages. Such pre-existing health conditions that may be exacerbated by air pollution include asthma, coronary heart disease, lung cancer, diabetes, chronic obstructive pulmonary disease and strokes.[23]

[14] British Lung Foundation (2017): 'Types of air pollution'; British Lung Foundation (2017): 'What are the effects of air pollution on your lungs?'; NHS (2015): 'Lung cancer'; The Committee on the Medical Effects of Air Pollutants (2018): 'The effects of long-term exposure to ambient air pollution on cardiovascular morbidity: Mechanistic evidence'; The Committee on the Medical Effects of Air Pollutants (2006): 'Cardiovascular disease and air pollution'; Public Health England (2018): 'Health matters: Air pollution'
[15] Public Health England (2018): 'Health matters: Air pollution'
[16] Nunez, C. (date unknown): 'Air pollution, explained' National Geographic; WHO (2018): 'Ambient (outdoor) air quality and health'; Public Health England (2018): 'Health matters: Air pollution'
[17] Sierra-Vargas, M.P., and Teran, L. M. (2012): 'Air pollution: Impact and prevention'
[18] Faculty of Public Health (2013): 'Transport and health: A position statement'; Cowie, H. et al., (2015): 'Air quality, health, wellbeing and behaviour'
[19] British Lung Foundation (2017): 'Risks to your child's lungs'
[20] Asthma UK (2017): 'Air pollution'; British Lung Foundation (2017): 'What are the effects of air pollution on your lungs?'; Public Health England (2018): 'Health matters: Air pollution'
[21] NHS (2016): 'Pneumonia'
[22] Public Health England (2018): 'Health matters: Air pollution'
[23] DEFRA (2013): 'Guide to UK air pollution information resources'; DEFRA (2013): 'Short-term effects of air pollution on health'; Public Health England (2018): 'Health matters: air pollution'

NHS research suggests that exposure to diesel fumes over a prolonged period of time can increase an individual's risk of developing cancer by up to 50%. Lung cancer is rare in people under 40 and most commonly diagnosed in people aged 70-74, therefore older people are more likely to develop illnesses caused by exposure to high levels of air pollution but with a delayed onset.[24]

### Disabled people

As with older people, evidence from DEFRA shows that air pollution is more likely to cause medical complications in people with pre-existing respiratory or cardiovascular conditions.[25] It can also trigger asthma symptoms such as difficulty breathing.[26] A survey of people with asthma by Asthma UK has found that 42% of respondents avoid walking or shopping in congested areas and 85% of respondents are concerned about the effect of increasing fumes on their health in the future.[27]

Hospital activity data in Peterborough highlights that there are high levels of hospital and accident and emergency admissions due to respiratory or cardiovascular diseases. [28] This means that Peterborough residents could be at greater risk of having their pre-existing cardiovascular and respiratory conditions aggravated if air pollution increased in the future.

### Pregnancy and maternity

Pregnant women's exposure to air pollution can impact foetal development and can cause low birth weights and premature births, as well as stillbirths and miscarriages.[29] This may have long-lasting effects on the health of the baby, some of which might only emerge later in life.[30]

### People who live in deprived areas

People who live in deprived areas can be more susceptible to the impacts of air pollution, one possibility of this may be because they tend to be in poorer health than the rest of the population.[31] However, it may also be because more deprived areas are often closer to busy roads in large urban areas.[32] For those living in deprived areas, poor housing, and often a lack of access to green spaces, may increase their time spent in areas with high levels of air pollution.[33]

## A.1.2 Exposure to air pollution

### Age: children and younger people

Children and young people can be disproportionately exposed to the effects of air pollution because they tend to spend more time outside when air pollution levels are at their highest. Also, children and young people breathe in more air (until their lungs stop growing at age 20), relative to their size, compared to adults.[34] Additionally, children and younger people's height

[24] NHS (2015): 'Lung cancer'
[25] DEFRA (2013): 'Guide to UK air pollution information resources'
[26] DEFRA (2013): 'Guide to UK air pollution information resources'; Public Health England (2018): 'Health matters: Air pollution'
[27] Asthma UK (2019): 'Breathe better together campaign: Facts and stats'
[28] Peterborough City Council (date unknown): 'Joint strategic needs assessment: Transport and health'
[29] Royal College of Physicians (2016): 'Every breath we take: The lifelong impact of air pollution'
[30] British Lung Foundation (2016): 'How air pollution affects your children's lungs'; Public Health England (2018): 'Health matters: Air pollution'
[31] British Lung Foundation (2016): 'How air pollution affects your children's lungs'; Public Health England (2018) Health matters: Air pollution'
[32] Greater London Assembly (date unknown): 'Health and exposure to pollution'
[33] Royal College of Physicians (2016): 'Every breath we take: The lifelong impact of air pollution'
[34] British Lung Foundation (2016): 'How air pollution affects your children's lungs'; Public Health England (2018): 'Health matters: Air pollution'

and the usage of pushchairs means that they are often closer to pollution sources, such as car exhausts.[35]

#### Race and ethnicity

Research suggests that on average ethnic groups are exposed to higher levels of air pollution compared to those who are White British, suggesting that ethnic groups are disproportionately exposed to air pollution.[36]

#### People who live in deprived areas

There is significant evidence to suggest that people residing in more deprived areas are more likely to be disproportionately exposed to air pollution and its subsequent impacts than those residing in less deprived areas.[37] 66% of man-made carcinogens are emitted in the 10% most deprived areas.[38] This is perhaps due to their tendency to be located near busy roads where air pollution levels are high.[39]

### A.1.3 Active transport to reduce air pollution

Active transport, such as walking and cycling, can reduce air pollution by providing an alternative to pollution emitting vehicles. According to the Department for Transport (DfT) active transportation based on thoughtful urban design can create active, healthier, and more liveable communities.[40]

#### Age: children and young people

There are many health benefits for children and young people if they take up active transport, as opposed to other modes of transport. One of these benefits is reduced childhood obesity (including predisposition).[41] This is particularly important as nearly a third of 2-15-year olds in the UK are currently overweight or obese, these younger people are also staying obese for longer.[42]

#### Age: older people

Older people are less likely to partake in active transport such as walking and cycling than younger people. There is generally a steady decline in cycling in the UK as people get older. The share of journeys made by bicycle in the UK decreases from 1.8% for those aged between 40 – 49, to 0.8 for those aged 70 and over.[43] This is often due to reduced physically mobility and increased concerns over their safety when cycling.[44] Research has found that 27% of 60-69-year olds own their own bicycle, but of these, only 1 in 9 use their bike regularly. Yet cycling could make a valuable contribution in promoting active ageing and good health.[45]

[35] British Lung Foundation (2016): 'How air pollution affects your children's lungs'; Public Health England (2018): 'Health matters: Air pollution'
[36] Ends Report (2009): 'UK notification to the European Commission to extend the compliance deadline for meeting PM10 limit values in ambient air to 2011'; Fechta, D., et al (2015): 'Associations between air pollution and socioeconomic characteristics, ethnicity and age profile of neighbourhoods in England and the Netherlands'
[37] Fechta, D., et al (2015): 'Associations between air pollution and socioeconomic characteristics, ethnicity and age profile of neighbourhoods in England and the Netherlands'; Pearce, J., et al (2013): 'Geographical and social inequalities in particular matter (PM10) and ozone air pollution in the EU: 2006 to 2010'; Public Health England (2018): 'Health matters: Air pollution'
[38] Asthma UK (2018): 'On the edge: How inequality affects people with asthma'
[39] Public Health England (2018): 'Health matters: Air pollution'
[40] DfT (2016): 'Cycling and walking investment strategy'
[41] WHO (2011): 'Health co-benefits of climate change mitigation: Transport sector'
[42] Department for Health and Social Care (2017): 'Childhood obesity: A plan for action'
[43] Jones, T., et al (2016): 'Cycle BOOM, design for lifelong health and wellbeing: summary of key findings and recommendations'
[44] Paulo Rui Anciaes (2014): 'Community severance: Where is it found and at what cost?'
[45] Jones, T., et al (2016): 'Cycle BOOM, design for lifelong health and wellbeing: Summary of key findings and recommendations'

### Disabled people

Reduced air pollution from active travel can also significantly benefit people with a disability as they can disproportionality experience the negative effects of air pollution.

Currently the majority of cycling infrastructure however, does not account for the needs of disabled people, creating inequality.[46] It is important to recognise that different disabilities will mean that people have different cycling abilities, some may need extra space for bike parking, while others may need space for dismounting.[47] However with accessible infrastructure, disabled cyclists may be more likely to participate in active travel, in turn helping to reduce air pollution. For people who take part in para-cycling, where the cyclist propels the bike using their arms, cycle lanes may be too narrow, or not suitable for certain types of adjusted bicycles due to distance from traffic or tight corners.[48]

### Race and ethnicity

By encouraging sustainable modes of transport to reduce air pollution, inequality in exposure to air pollution could be minimised. However, research suggests that people from BAME backgrounds are currently less likely to participate in active travel modes.[49] For example, in England, White adults walk the most for leisure whilst Asian and Black adults walk the least. White and Mixed Ethnic adults cycle the most, whilst Asian adults cycle the least.[50] This highlights the different rates of active travel participation between people from various ethnic backgrounds.

Promotion or provision of sustainable and active travel therefore, should reduce inequality and the negative impacts of air pollution if targeted at this group.

### People who live in deprived areas

Increasing promotion and provision of active transport is likely to directly benefit people who reside in deprived areas by improving the local air quality and improving their health and wellbeing.[51] For example, obesity rates for children are highest amongst those in deprived areas. According to the Department for Health and Social Care, children aged five from the poorest income groups in the UK are twice as likely to be obese compared to their most well-off counterparts, and children aged 11 are three times as likely to be obese.[52] Active transport, therefore, not only improves these people's health and wellbeing but can also help to reduce health inequalities more widely.[53]

## A.2 Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?

People who are dependent on cars, including those in rural populations, and the socially excluded are more likely to face barriers in accessing public transport. These barriers can lead to new or additional social exclusion.[54] The relationship between transport and social exclusion

[46] Cycling UK (2018): 'Dr. Rachel Aldred: How disabled people are left out of UK transport strategy'; DfT (2016): 'Cycling and walking investment strategy'

[47] Clayton, W. and Parkin, J. (2016): 'Cycling and disability: A review'

[48] Clayton, W. and Parkin, J. (2016): 'Cycling and disability: A review'

[49] Goodman, A. and Aldred, R. (2019): 'Inequalities in utility and leisure cycling in England, and variation by local cycling prevalence'

[50] DfT (2016): 'Walking and cycling statistics in England'

[51] DfT (2016): 'Cycling and walking investment strategy'; WHO (2019): 'Health and sustainable development'

[52] Department for Health and Social Care (2017): 'Childhood obesity: A plan for action'

[53] DfT (2016): 'Cycling and walking investment strategy; WHO (2019): 'Health and sustainable development'

[54] Social exclusion is multifaceted and includes a lack of access to employment, legal redress and markets and poor social relationships. It is the process of making individuals or groups of people feel isolated and unimportant. Social Exclusion Unit (2003): 'Making the connections: Final report on transport and social exclusion'

is highly contextual and person specific. For example, social exclusion does not always result in barriers to transport and vice versa.[55]

### Age: children and younger people

As children and young people become more independent, their use of public transport increases.[56] One study found that 29% of journeys to school by 11-16-year olds are made by bus, compared to only 7% of all journeys made in England being by bus. The availability of transport also contributes to children's attendance at before or after school clubs and extra-curricular activities, this is particularly dependent on the availability and cost of public transport.[57] This shows that children may be disproportionately impacted by changes made to bus provision.[58]

Young people may also be reliant upon transport to get to work or training and to play an active role in local communities.[59] According to research, 6% of people aged between 16 - 24 have turned down further education opportunities due to transport concerns.[60]

Research has shown that young people also make proportionately more journeys by rail, bus and coach than all other age groups.[61] According to the Scottish Centre for Social Research, people aged between 19 – 29 are the age group most likely to have used a bus in the previous month.[62] This evidence highlights that young people are some of the main users of public transport and are therefore likely to be affected by changes during and after construction of new networks.

### Age: older people

When older people stop driving, they become reliant upon public transport to access services and amenities, including support from friends, family and the community.[63] This reliance can create inequalities in access to services.[64]

Funding cuts to local bus services and community transport has resulted in increased fares and pressure on existing services.[65] This impacts older people and their ability to maintain their independence outside of the house; research has found that a lack of suitable transport directly impacts the wellbeing, with 6% of older people saying they feel isolated because they are unable to get 'out and about'.[66] In addition to this, research has shown that a lack of public transport has an impact on accessing healthcare, potentially leading to missed appointments and therefore delays in medical intervention.[67] Evidence from Age UK suggests that in England, 1.45 million people aged 65 and over - and more than half of people aged 80 and over - find it difficult to travel to hospital, and 630,000 find it difficult or very difficult to travel to their GP. Those who find it most difficult to travel to hospitals are often the oldest, in the poorest health and on the lowest incomes, and it is these people who are more likely to have a long-term

[55] Cambridgeshire County Council (2015): 'Joint strategic needs assessment: Transport and health, access to transport'
[56] DfT (2017): 'National travel survey: England 2016'
[57] Social Exclusion Unit (2003) 'Making the connections: Final report on transport and social exclusion'
[58] DfT (2017): 'National travel survey: England 2016'
[59] British Youth Council (2012): 'Transport and Young People'
[60] Social Exclusion Unit (2003): 'Making the connections: Final report on transport and social exclusion'
[61] House of Commons (2013): 'Transport and accessibility to public services'
[62] Dobbie, F., McConville, S. and Ormston, R. (2010): 'Understanding why some people do not use buses'
[63] Musselwhite, C. (2010): 'The importance of driving for older people and how the pain of driving cessation can be reduced'
[64] Cambridge County Council (2015): 'Joint strategic needs assessment: Transport and health, access to transport'
[65] Campaign for Better Transport (2015): 'New statistics: Bus services across England hit hard by cuts'
[66] Royal Voluntary Service (2013): 'Going nowhere fast: The impact of inaccessible public transport on the wellbeing and social connectedness of older people in Great Britain'
[67] UCL (2014): 'Transport and poverty: A review of the evidence'

health condition which requires access to a hospital and GP service for monitoring and treatment.[68]

### Disabled people

The DfT data shows that approximately 20% of disabled people face disability related difficulties in accessing public transport,[69] Evidence shows that difficulty in accessing transport is the second most common barrier to work among disabled people, 52% of working-age disabled adults stated difficulty in accessing bus services as a barrier.[70] Providing access to transport for disabled people would bring numerous benefits including the widening of employment opportunities, increased access to education, and enabling disabled people to participate more fully in their communities.[71]

### Sex

Transport acting as a barrier to women's employment opportunities is multifaceted. Research shows that for families living in a one car household, one partner is likely to take the car to work and the other partner is likely to be reliant on public transport. In heterosexual partnerships this is most commonly the female, and this can result in them seeking local, lower paid jobs to ensure they can balance childcare responsibilities and commuting times.[72] This is likely to have more of an impact where car travel is faster and more convenient than public transport; particularly in more rural areas.

### People who live in deprived areas

A report into access to employment for people living in deprived areas revealed that public transport is often seen by people in deprived areas as something that constrains rather than promotes access to employment.[73] This is due to poor transport connections or irregular and expensive local services. Public transport has the potential to increase access to employment and education, in return creating economic prosperity. However, this is based on ensuring that transport networks connect more deprived areas to centres of employment and education.[74]

## A.2.1 Social Isolation

A study by Rural England highlighted issues experienced by vulnerable, older adults living in rural areas. Rural areas often have higher than average proportions of older people, a rapidly ageing population and acute accessibility issues. These patterns can result in an increase in loneliness and social isolation amongst this population. The absence of shops, post offices, pubs and other facilities in rural areas can limit opportunities for interaction amongst the population living there. Coupled with the scarcity of public transport in rural areas the chances of becoming socially isolated are increased. Bus services tend to be infrequent and limited in terms of destination in rural communities.[75]

Further to this, a 2010 report by Age UK concluded that physical isolation (living on your own, not seeing many people, living far away from resources and opportunities to interact) is the single factor most closely associated with feeling lonely.[76] Moreover, isolated and lonely older people are at an increased risk of developing dementia. It has been found that self-perceived

[68] Age UK (2015): 'The future of transport in an ageing society'
[69] DfT (2014): 'Disability facts and figures'
[70] Office of Disability Issues (2011): 'ODI life opportunities survey: Wave 1 results'
[71] House of Commons Transport Committee (2013-14): 'Access to transport for disabled people'
[72] UK Women's Budget Group on public transport and gender (2018): 'Public transport and gender briefing'
[73] Joseph Rowntree Foundation (2018): 'Tackling transport-related barriers to employment in low-income neighbourhoods'
[74] Joseph Rowntree Foundation (2018): 'Tackling transport-related barriers to employment in low-income neighbourhoods'
[75] Rural England (2016): 'Older people in rural areas: Vulnerability due to loneliness and isolation paper'
[76] Age UK (2010): 'Loneliness and isolation evidence review'

loneliness doubles the risk of developing Alzheimer's disease.[77] Improving links between areas, neighbourhoods and communities, particularly those that are rural, is likely to positively impact older people with regard to reducing levels of isolation and loneliness.

Research in Cambridgeshire found that 43.9% adult social care users aged 65 or over are satisfied with the social contact they currently get, yet 11.8% identified with 'I have some social contact with people, but not enough' and 4.3% indicated that 'I have little social contact with people and feel socially isolated'. However, no research exists at a smaller scale and so the distribution of these people across Cambridgeshire is unknown.[78]

### Age: children and young people

Children often lack the ability to travel independently due to their age, as a result of this they have been identified as being vulnerable to the effects of community severance. Parents of children who are old enough to travel independently expressed concerns over the safety of their children travelling across architecture that causes community severance, e.g. ring roads.[79]

### Age: older people

Research from the DfT highlighted that one in six people in England aged 50 and over are socially isolated.[80] Transport plays a key role in keeping older people socially connected

Evidence suggests that well connected areas, neighbourhoods and communities can provide social support networks where social isolation is reduced and peoples' well-being is improved.[81]

The population of Cambridgeshire will age substantially by 2026, with the number of people aged over 90 years forecast to more than double, and the number of people in their 80s to rise by more than 50%, which is likely to increase the population who experience social isolation.[82]

Poor transport provision can be a barrier to older people maintaining and accessing new social connections and services designed to reduce social isolation.[83]

### Disabled people

Evidence shows that over half of disabled people (53%) have reported feeling lonely. Improving links, making sure to consider accessibility, could therefore help disabled people to maintain and establish social connections. Research by the Office for National Statistics found that people in the UK with a learning or physical impairment tend to have lower levels of social contact compared to the rest of the population. The research also suggests that most disabled adults in the UK experience participation restriction regarding leisure activities, particularly spending time with family and visiting friends. The research also notes that the degree of social isolation experienced by disabled people varies with age and with the specific impairment(s) or severity of the impairment(s).[84]

### People living in deprived areas

There is evidence to suggest that people living in deprived areas can experience barriers to transport. For example, their use of transport may be restricted by low incomes, as a result these people may experience social exclusion which can have significant impacts on mental

[77] Age UK (2014): 'Evidence review: Loneliness'
[78] Cambridgeshire County Council (2014): 'Joint strategic needs assessment: Older peoples mental health'
[79] Anciaes, P. (2014): 'Community severance: Where is it found and what cost?'
[80] DfT (2012): 'Transport for everyone: An action plan to promote equality'
[81] Parsfield, M. (2015): 'Community capital: The value of connected communities'
[82] Cambridgeshire County Council (2014): 'Joint strategic needs assessment: Older peoples mental health'
[83] Age UK (2015): 'Promising approaches to reducing loneliness and isolation in later life'
[84] Office for National Statistics (2015): 'Life opportunities survey'

health and well-being.[85] However, it is important to recognise the relationship between mental health, social isolation and living in a deprived area is not necessarily linear and it is likely that causality is not always clear cut.[86]

### A.2.2 Barriers to transport use

Infrastructure that risks causing community severance may create a range of physical and psychological barriers. For vulnerable pedestrians, there may be an associated fear of having a road traffic accident and having to walk further to access a crossing. Loud noise is cited as being disruptive to everyone in the wider population.[87]

#### Age: children and young people

The distance children have to travel to school influences transport choices.[88] Longer distances can result in a change from active transportation such as cycling or walking, to sedentary transportation, such as vehicular transport.[89]

#### Age: older people

Research by Age UK indicates that public transport is currently failing to meet the needs of older people. There are 35,000 people aged 65 to 84 in England who are not able to drive or do not have access to private transport and are therefore reliant on public transport to travel. However, 59% of these people are reported to not use public transport. Among older people aged 85 and over, 50,000 people are restricted to using public transport, with 85% of these saying they do not use public transport.[90]

#### Disabled people

There is evidence to suggest that disabled people, especially impairments that affect mobility can prevent disabled people from driving and using public transport, which can result in them becoming socially isolated and have further knock-on impacts on their health and well-being and access to services.[91]

Evidence from the British Parking Association suggests that the number of disabled bays in the UK is being reduced due to some local authorities removing bays or putting loading bans on yellow lines in order to improve traffic flow. As a result it may be becoming increasingly difficult for disabled people, with physical mobility impairments, who are dependent on cars to access services and facilities.[92]

#### People living in deprived areas

In Peterborough, households in the lowest quintile for income walk the most, perhaps due to reduced access to other forms of transport that cost money.[93] People residing in deprived neighbourhoods may not be able to access services as access to certain modes of transport can be restricted by low incomes or by bus routes which do not run to the right places.[94]

[85] Social Exclusion Unit (2003): 'Making the connections: Final report on transport and social exclusion'
[86] Payne, S. (2012): 'Mental health, poverty and social exclusion'
[87] DfT (date unknown): 'Views of practitioners and communities'
[88] Salmon, J. Salmon, L. Crawford, D.A. Hume, C. and Timperio, A. (2007): 'Associations among individual, social, and environmental barriers and children's walking or cycling to school'
[89] Yeung, J., Wearing, S., & Hills, A. P. (2008): 'Child transport practices and perceived barriers in active commuting to school.'
[90] Age UK (2015): 'The future of transport in an ageing society'
[91] Cambridgeshire County Council (2015): Joint strategic needs assessment: transport and health, access to transport'
[92] British Parking Association (2012): 'Parking issues for people with disabilities'
[93] Peterborough City Council (date unknown): 'Joint strategic needs assessment: transport and health'
[94] Social Exclusion Unit (2003): 'Making the connections: Final report on transport and social exclusion'

## A.3 Improve access to sustainable transport modes including public transport and active travel?

A move to more sustainable and healthier travel will have numerous benefits for people living in the UK. Currently nearly half of all journeys that are less than two miles are made by car.[95] The amount people walk has decreased and the UK has moved towards a culture of car dependency.[96] The promotion of sustainable transport and active travel encourages the use of healthier and more environmentally friendly modes of travel such as walking, cycling and using public transport. Investing in accessible transport and increasing the safety and accessibility of the pedestrian environment are two ways modal change can be encouraged.

### A.3.1 Private vehicle use

#### Age: children and younger people

The number of young people with driving licences fell between 1992 and 2014 from 48% to 29% among 17 – 20-year olds. The annual number of journeys where the driver was in the aforementioned age bracket fell by 36% over the same time period. [97] The cost of maintaining a vehicle and associated insurance costs disproportionately affects young people due to insurance companies considering them a high risk group.[98] This is borne out of data showing that young people under the age of 24 are seven times more likely to be involved in road traffic incidents, and partake in high risk behaviour on the road (see section A.7.2). The relatively high cost of vehicle ownership may have contributed to young people becoming increasingly reliant on public transport.[99]

#### Age: older people

Evidence shows that older people are more likely than any other age group to become unable to drive, this is due to an increased risk of developing health problems that make driving more difficult, or even dangerous.[100] In line with this, research indicates that if older people anticipate or plan to give up driving, they are more likely to learn how to use local public transport in advance, including planning their more regular journey. This forethought increases confidence among users of public transport and decreases their risk of becoming isolated.[101] Promoting sustainable and active travel therefore could help maintain and support independence and over time help close any age equality gaps in active travel.

#### Race and ethnicity

In 2017, 79% of distance travelled by White people was made by private vehicle, compared to 54% of distance travelled by Black people.[102] This is line with research that found that people from a BAME background are less likely to have access to a private vehicle. Across the UK, 19% of White people aged 17 and older were reported to have no access to a car or a van, this is significantly lower than Black people (41%), Mixed ethnicity (30%) and 'Other' (35%).[103] Evidence shows that reduced car ownership among people from a BAME background means that this group of people are more likely to rely on public transport to meet their travel needs.[104] This means that the economic and social opportunities of people from BAME groups are likely

[95] DfT (2013): 'National Travel Survey'
[96] DfT (2013): 'National Travel Survey'
[97] Government Office for Science (2019): 'UK at forefront of transport innovation'
[98] RAC Foundation (2017): 'Motor insurance premiums for young drivers in the UK and Europe'
[99] RAC Foundation (2017): 'Motor insurance premiums for young drivers in the UK and Europe'
[100] Musselwhite, C. (2010): 'The importance of driving for older people and how the pain of driving cessation can be reduced'
[101] Musselwhite, C. (2010): 'The importance of driving for older people and how the pain of driving cessation can be reduced'
[102] DfT (2018): 'Travel by distance, trips, type of transport and purpose'
[103] DfT (2018): 'Travel by distance, trips, type of transport and purpose'
[104] DfT (2015): 'Travel by car availability, income, ethnic group, household type and NS-SEC'

to be limited, to a greater extent, to places accessible by public transport than those from other ethnic groups.

#### Sex

Reports show that there are clear inequalities between men and women when it comes to driving. In 2016 80% of men held a driving licence compared to 67% of women. Moreover, men on average drive 60% more miles than women each year.[105] The differences in driving habits between men and women show that they will be affected differently by the promotion of sustainable and active travel. Moreover, due to fewer women using cars, it may be that they are more readily able to transition to more sustained public transport use.

### A.3.2 Access to public transport

Alongside concerns around personal safety (see section A.7.1), research has highlighted multiple barriers around access that people face when using trains, and particularly train stations. Reported barriers include:

- long staircases
- speed of closing doors
- height of steps
- escalators
- walking distances between connecting services
- a lack of accessible information

A poor station layout, or changes to the layout can increase the risk of confusion and stress, as well as physical incidents such as falls for older and less mobile people.[106] Some of the abovementioned barriers such as a lack of step-free access and long walking distances can limit people to using certain stations, or preventing their use of the rail network altogether.[107] Some people may also experience challenges when boarding or alighting trains due to the speed of opening or closing doors, particularly if there is a large gap between the platform and train.[108] Once on a train, overcrowding, a lack of seats and the availability of accessible toilets were also reported as common reasons older people feel deterred from using public transport.[109]

#### Age: children and younger people

Research shows that low skilled jobs are increasingly being located out of city centres and may involve shift or weekend work. Therefore, a lack of regular and affordable transport to more rural areas may become a barrier to employment for some young people.[110]

There is an increasing number of young people joining the workforce through apprenticeships and training schemes, these are often low paid, making the cost of transport less affordable. This is particularly significant if they are required to travel at peak times, when young person's discounts are unavailable.[111]

[105] DfT (2016): 'Road use statistics in the UK'
[106] Rail Delivery Group (2015): 'On track for 2020? The future of accessible rail travel'
[107] Rail Delivery Group (2015): 'On track for 2020? The future of accessible rail travel'
[108] Rail Delivery Group (2015): 'On track for 2020? The future of accessible rail travel'
[109] TfL (2012 – 13): 'Customer satisfaction surveys'
[110] Campaign for Better Transport (2016): 'Why getting transport right matters to young people'
[111] ACORP (2018): 'Community rail and social inclusion'

### Age: older people

Research has shown that for many older people, their travel needs are not met by current public transport provision. Only 20% of older people living in rural areas aged 70 – 74 use public transport every week, this is compared to 38% of the same age group living in urban areas. Two of the main reasons given for not using public transport is that it does not go where people want and is not convenient.[112] Research highlights that rural communities in the Combined Authority can be poorly served by public transport, especially in the evening and at weekends, causing social isolation within these remote and aging communities.[113] As people age they are more likely to become more reliant on public transport, is it therefore important that public transport is designed in a way that will suit the needs of older people.

The use of technology and the internet relating to travel has more recently become a barrier for older people. They tend to be less familiar with technology than younger age groups and digital information has been found to induce stress in older people.[114] Older people are therefore more likely to have trouble when using digital tools such as ticket machines. This challenge may be increased if ticket machines are located outside of stations where sunlight can make it difficult to read the screen.[115] Research has found that almost 20% of people aged 65-74 have never been online, this means they risk missing out on information regarding transport projects, service alterations and work schedules, all of which may affect them.[116] Access can be further impeded by a lack of availability of staff as research has found that older people are more likely to buy tickets from staffed ticket offices.[117] It is clear that older people face a wide range of challenges when using public transport, and both the physical and psychological accessibility of transport needs to be considered when planning for new networks.

### Disabled people

Research has found that disabled people make fewer trips on public transport and the difference increases as those people get older.[118] People with mobility impairments feel less confident when travelling, particularly on overcrowded services where they are concerned they may have to stand.[119] For many disabled people, they face a barrier in the first instance of their journey; the pavement. Evidence shows there are concerns about the accessibility of bus stops, the distance of the bus from the kerb or where there is no pavement at all. In a government paper regarding disabled people's access to transport, pedestrian infrastructure was not included, raising questions about the motivation to include measures to improve access for disabled people.[120] Another issue that has arisen in research is the frustration wheelchair users experience when other passengers are occupying wheelchair spaces on buses, and drivers can therefore not accommodate them on the vehicle.[121] Legally, bus drivers must ask non-wheelchair users occupying the space to move and wheelchair users have priority over parents with pushchairs, however if the pushchair user refuses to do so, the driver cannot force them, at times rendering bus travel inaccessible for wheelchair users.

Alongside these more physical barriers, evidence has shown that visually impaired people may find it difficult to access websites with journey planners and information about tickets and fares.

[112] Age UK (2015): 'The future of transport in an ageing society'
[113] Campaign for Better Transport (2018): 'Improving transport services in Ramsey: Research project for Ramsey Million Partnership'
[114] TfL (2012 – 13): 'Digital media monitoring combined analysis'
[115] Rail Delivery Group (2015): 'On track for 2020? The future of accessible rail travel'
[116] Office for National Statistics (2018): 'Internet users, UK: 2018'
[117] Office for Rail and Road (2014): 'Rail passenger experience report'
[118] Royal Voluntary Service (2013): 'Going nowhere fast: the impact of inaccessible public transport on wellbeing and social connectedness of older people in Great Britain'
[119] Royal Voluntary Service (2013): 'Going nowhere fast: The impact of inaccessible public transport on wellbeing and social connectedness of older people in Great Britain'
[120] House of Commons Transport Committee (2013 – 14): 'Access to transport for disabled people'
[121] House of Commons Transport Committee (2013 – 14): 'Access to transport for disabled people'

For visually impaired people the presence of audio instructions is important in order to complete journeys. However, a DfT consultation with 700 visually impaired people found that 50% felt that they were unable to rely on announcements on modes of transport or at stations, making it difficult for them to travel without planning the route in advance.[122] It was also found that on-board information is routinely too small or cluttered to read. [123]

People with learning disabilities that cause reduced literacy and numeracy skills may find it difficult to understand route maps, fares and signs, while a lack of straightforward and easily accessible information could affect someone's mental health.[124] Disabled people are therefore likely to be disproportionately affected by the volume of information regarding ticketing, routes and restrictions when using public transport.[125]

Research has found that compared to 81% of non-disabled people, only 53% of disabled people have access to a smartphone, and only 67% of disabled people compared to 92% of non-disabled people use the internet.[126] This disparity shows that internet access should be considered when looking at the way information and tickets are made available. For people needing to seek out pre-journey information online, feelings of anxiety and stress were reported.[127]

Challenges faced by deaf people are not dissimilar from those outlined above. However, inconsistencies with the provision of information in audio and visual formats can make travel difficult.[128] For people who use sign language, barriers occur when there is a need to communicate with members of staff directly.[129]

### Pregnancy and maternity

For many parents with young children, public transport is deemed important in supporting social inclusion. In order to realise these benefits, accessibility of public transport for people with pushchairs or young children needs to be considered.[130] Parents with young children have been identified as a group that is particularly vulnerable to community severance. This is in part to issues around physical accessibility of public transport, but also highlighted when looking at the use of taxis. Legislation means that taxi drivers cannot accept young children as passengers without a car seat, complicating what may be considered a straightforward transport method.

### Race and ethnicity

Evidence suggests that people from a BAME background who live in London, are more likely to state the cost of public transport as a barrier to travel compared to their White counterparts (60% and 38% respectively).[131]

Alongside the cost of travel, people from a BAME background may face challenges when travelling on public transport if English is not their first language.[132] According to 2011 census data, people with a Bangladeshi background were least likely to speak English well or at all. There is also a gender divide in these statistics, with women making up 60% of people who

[122] National Literacy Trust (date unknown): 'Adult literacy'; RNIB (2018): 'Rail research summary and key recommendations'
[123] Transport Focus (2012): 'Experiences of disabled rail passengers'
[124] House of Commons Transport Committee (2013 – 14): 'Access to transport for disabled people'
[125] Mackett, R. (2017): 'Building confidence: Improving travel for people with mental impairments'; Transport Focus (date unknown): 'Retailing: Buying a ticket'
[126] Ofcom (2018): 'Access and Inclusion 2018: Consumers' experiences in communications markets'
[127] Rail Delivery Group (2015): 'On track for 2020? The future of accessible rail travel'
[128] Action on Hearing Loss (2018): 'On the right track? transport experiences of people who are deaf or have hearing loss'
[129] Action on Hearing Loss (date unknown): 'Facts and figures'
[130] EU Commission (date unknown): 'Priorities for the use of bus transport by disabled people, older people and parents with young children in buggies'
[131] TfL (2012): 'Understanding the needs of London's diverse communities: BAME'
[132] TfL (2008 – 11): 'Race equality scheme'

could not speak any English. Pakistani and Bangladeshi women are five times as likely as men from the same background to not speak any English.[133]

#### Sex

Evidence reveals differences in men and women's use of public transport with women making more bus trips and men taking part in more train travel than women.[134] Research has shown that women are more likely to live on lower incomes than men and have part-time, rather than full-time jobs. This means that the affordability of public transport may take higher priority for women when they are considering different modes of transport. A key issue is paying for seasonal, or weekly transport passes, when their use is more sporadic; these tickets can be inflexible for people not working full-time.[135]

#### People who live in deprived areas

Evidence suggests that people living in deprived areas face unequal access to certain modes of transport. Research has found that only a small number of deprived areas are served by the rail network, instead mostly being accessibly by local buses. Where there are train stations, they are often perceived as run-down and secluded, leading to feelings of fear about using them.[136]

Good transport infrastructure is necessary for economic growth and poverty reduction, as long as those living in deprived areas have the resources to utilise it. Affordability of public transport is one of the key barriers for people living in deprived areas. People living in deprived areas are significantly more likely to use buses than other groups of people, and bus travel therefore accounts for a larger percentage of their income.[137]

In the Cambridge Transport and Health Joint Strategic Needs Assessment, individuals in lower socio-economic groups were identified as facing barriers to the availability and accessibility to local transport.[138] Unemployed and low-income households face limitations in where they live, where they can travel to, and ultimately, how they can travel.[139]

### A.3.3 Active Travel

#### Age: children and younger people

There are many health benefits for young people and children who take part in active travel, such as a reduction in obesity and longer term health risks.[140] Promoting active travel among children also aids development of certain cognitive, motor and physical skills, vital for a child's growth.[141] For children who are unable to move around safely and independently, it is likely they will become dependent on their parents for mobility needs, therefore becoming less active themselves, in turn preventing the myriad benefits active travel may bring.[142]

#### Age: older people

In terms of the pedestrian environment, the upkeep of streets and the design of the environment were mentioned as common barriers older people faced when using the public realm. Uneven surfaces, steeps hills and a lack of places to rest have been cited in research as reasons older

[133] Office for National Statistics (2018): 'English language skills'
[134] UK Women's Budget Group on public transport and gender (2018): 'Public transport and gender briefing'
[135] UK Women's Budget Group on public transport and gender (2018): 'Public transport and gender briefing'
[136] Joseph Rowntree Foundation (2018): 'Tackling transport-related barriers to employment in low-income neighbourhoods'
[137] UK Women's Budget Group on public transport and gender (2018): 'Public transport and gender briefing'
[138] Cambridgeshire County Council (2017): 'Joint strategic needs assessment'
[139] Anciaes, P.R. (2014): 'Community Severance: Where is it found and at what cost?'
[140] WHO (2011): 'Health co-benefits of climate change mitigation: Transport sector'
[141] WHO (2011): 'Health co-benefits of climate change mitigation: Transport sector'
[142] WHO (2011): 'Health co-benefits of climate change mitigation: Transport sector'

people feel anxious about walking.[143] Further research has highlighted other physical barriers such as high kerbs and holes in pavements as challenges faced by older people in accessing the public realm.[144]

### Disabled people

Regular physical activity can improve mental health among people with serious mental illness.[145] Research has shown that disabled people with a range of learning and physical impairments are 50% less likely than non-disabled people to be physically active.[146]

Disabled people with a range of learning and physical impairments, state that a reason for their lack of activity is due to the inaccessibility of the pedestrian environment, particularly road crossings where evidence shows they feel particularly vulnerable.[147] The timing of crossings, a lack of working crossings and the absence of dropped kerbs are all cited as barriers, and uneven surfaces increase the chance of falling for people with reduced mobility. For wheelchair users' obstructions such as advertising boards or bins can make the pedestrian environment particularly challenging.[148] The pedestrian environment should be maintained in a way that supports the independent travel and mobility of disabled people to ensure they have equal access to participation in active travel.

### Race and ethnicity

There is some disparity when looking at figures for people from a BAME background in relation to walking and cycling. People from a mixed ethnicity background were most likely to walk for travel once a week, while White British were the least likely. However, when this is compared to walking for leisure, the probabilities were reversed.[149]

In terms of cycling, Black and Asian adults were least likely to cycle (7% and 8%), people from mixed ethnic backgrounds were in the middle, with 14% stating they cycle as least once a week, and White British people were found to be the most likely to cycle at least once a week (17%).[150] A report carried out by Transport for London found that people from a BAME background faced a range of barriers to cycling. These were:

- Demands on time
- The cost of a bike
- Awareness: People from a BAME background are less likely to be aware of local cycling routes. This could be in part due to a lack of information other than in English.
- Understanding: Evidence shows that people from a BAME background see cycling as recreational as opposed to a mode of transport.[151]

The increased promotion of sustainable and active travel therefore could impact people from a BAME background if promotions are targeted. There is a wider scope to reduce inequalities of walking and cycling for people from a BAME background through the promotion of sustainable and active travel.

[143] TfL (2016): 'Older Londoners' perceptions of London streets and the public realm: Final report'
[144] Wennberg, H. Phillips, J. and Stahl, A. (2017): 'How older people as pedestrians perceive the outdoor environment: Methodological issues derived from studies in two European countries'
[145] Richardson, C., Faulkner, G., McDevitt, J., Skrinar, G., Hutchinson, D., Piette, J. (2005): 'Integrating physical activity into mental health services for persons with serious mental illness'
[146] Public Health England (2016): 'Health matters: Getting every adult active every day'
[147] Living Streets (2016): 'Overcoming barriers and identifying opportunities for everyday walking for disabled people'
[148] Living Streets (2016): 'Overcoming barriers and identifying opportunities for everyday walking for disabled people'
[149] DfT (2018): 'Walking and cycling statistics, England 2017'
[150] DfT (2018): 'Travel by distance, trips, type of transport and purpose'
[151] TfL (2011): 'What are the barriers to cycling amongst ethnic minority groups and people from deprived backgrounds?'

### Sex

Evidence shows that women are more likely to walk for travel than men, and this is most significant for women aged between 30 – 39 years, where women make up to four times more walking trips than men. One suggestion for this is that women, in heterosexual relationships, are more likely to walk with their children to school than their male partners.[152]

Conversely, men make nearly three times as many cycling trips than women, are twice as likely to cycle to work, and travel almost four times further.[153] This highlights that men may be disproportionately affected by changes to cycling networks. According to research, gender inequality in cycling is common in English-speaking countries with low levels of cycling. This in part is due to cultural factors that remain in place despite an increase in the promotion of active travel.[154] Promoting gender equality, and normalising cycling culturally are two ways to potentially increase the number of women cycling regularly.

With regard to cycling infrastructure, men and women are unified in their preference of a separation of cycling and motor traffic, however, women tended to feel more strongly about this.[155] Therefore, it can be suggested that a more supportive and cycle friendly infrastructure is needed to promote greater uptake of cycling by women.[156]

### People who live in deprived areas

Adults living in deprived areas are less likely to walk for leisure than people living in less deprived areas, however, they are more likely to walk for travel, perhaps a result of barriers to accessing public transport.[157] For people living in deprived areas who do not have access to private transport, walking and cycling can provide a cost-effective mode of transport while at the same time improving health and wellbeing. However, walking and cycling environments need to be welcoming and accessible for this to occur more frequently.[158] Providing good cycling environments is particularly important for those who do not have access to other forms of transport.[159] Improved cycle links to key amenities, employment and education will increase the mobility of people living in deprived areas. The promotion of local cycle networks, affordable bicycle schemes and increasing the awareness of the associated health benefits of active travel, will all help to encourage people in deprived areas to take part in a more active lifestyle.[160]

## A.4 Help to facilitate the delivery of housing that meets the needs of the population including ensuring access to new and existing sustainable residential developments?

### A.4.1 Housing that meets the needs of people

Different characteristic groups have varying and often specific needs for housing. To meet the needs of these people, the provision of housing that is accessible, affordable, and promotes physical and mental wellbeing is of benefit to all sectors of the population.

### Age: Children and young people

[152] DfT (2018): 'Walking and cycling statistics, England 2017'
[153] DfT (2018): 'Walking and cycling statistics, England 2017'
[154] Aldred, R., Woodcock, J. and Goodman, A. (2015): 'Does more cycling mean more diversity in cycling?'
[155] Aldred, R., Woodcock, J. and Goodman, A. (2015): 'Does more cycling mean more diversity in cycling?'
[156] Aldred, R., Woodcock, J. and Goodman, A. (2015): 'Does more cycling mean more diversity in cycling?'
[157] DfT (2016): 'Cycling and walking investment strategy'
[158] WHO (date unknown): 'Sustainable development: Transport'
[159] Aldred, R. (2015): 'Pedalling towards equality?'
[160] TfL (2011): 'What are the barriers to cycling among ethnic minority groups and people from deprived backgrounds?'

Families with children may find it difficult to find housing that can accommodate their needs.[161] A 2016 report highlighted that 3.6 million children in England are thought to be affected by poor housing, and a higher proportion of children live in overcrowded conditions than any other age group.[162] Children who live in overcrowded accommodation have an increased risk of developing respiratory conditions, infections and psychological problems.[163]

Further to this, overcrowded housing can also increase a child's risk of injury. For example, bed sharing, which is more likely to occur in overcrowded houses, has been identified as a factor contributing to Sudden Infant Death Syndrome (SIDS). Sleep disturbance is also more common amongst children in overcrowded households, this may become a potential source of stress and can negatively impact a child's emotional and physical health in the long term.[164]

Private renters are, on average, younger than people renting social housing and those who own their own homes (average ages 40, 52 and 57 respectively). People between the ages of 16 – 24 spend an average of 48% of their income on rent, higher than any other age bracket, showing the importance of affordable private rental properties. While younger people are spending more money on their rent, they also have the highest rate of home ownership aspiration, with 81% expecting to own their own home in the future. [165]

### Age: Older people

The condition of housing is particularly important to older people as poor housing can seriously impact their health and wellbeing. Research shows that housing that is cold, damp and not appropriate for its occupiers can contribute towards a range of health problems for older people, including respiratory conditions, arthritis, heart disease and stroke. Poor housing can also contribute to mental health problems caused by stress and anxiety, often exacerbated by worries about high energy bills and fuel poverty.

With regard to accessibility in the home, hazards and poor accessibility can contribute towards older people having falls and accidents. It is therefore important for a house to be assessed before older people leave hospital to ensure they can remain as independent as possible. Here, it is often necessary for housing delivery to be integrated with other support services. Support may include social services care packages, help with financial advice, help with engaging in physical exercise and other activities and provision of aids and home adaptations. Such services can contribute to the mobility, independence and comfort of older people in their own home.[166]

### Disabled people

Disabled people (particularly those with mobility impairments) often experience difficulties trying to find a suitable, accessible home. A report by Leonard Cheshire Disability highlights that only four per cent of those with mobility impairments who have looked for accessible homes said they were easy to find. In addition, they also found that some disabled people have experienced difficulties in terms of local authorities being reluctant to fund adaptations that would allow them to live independently.[167] This can make searching for appropriate properties even more challenging.

[161] House of Commons Communities and Local Government Committee (2011) 'Regeneration Sixth Report of Session 2010-12'
[162] National Children's Bureau (2016): 'Housing and the health of young children: Policy and evidence briefing for the VCSE sector'
[163] National Children's Bureau (2016): 'Housing and the health of young children: Policy and evidence briefing for the VCSE sector'
[164] National Children's Bureau (2016): 'Housing and the health of young children: Policy and evidence briefing for the VCSE sector'
[165] Ministry of Housing, Communities & Local Government (2017): 'English Housing Survey: Private rented sector, 2016-17'
[166] Age UK (2014): 'Housing in later life'
[167] Leonard Cheshire Disability (2014): 'The hidden housing crisis'

A report published by the Equality and Human Rights Commission has further highlighted some of the existing issues in terms of housing for disabled people. Overall, in England, only 7% of homes offer the basic four features to make a home fully accessible; level access to the entrance, a flush threshold, sufficiently wide doorways and circulation space, and a toilet at entrance level.[168]

### Pregnancy and maternity

Housing needs can change for a person throughout pregnancy. For this reason, a home that was suitable before pregnancy may become unsuitable. According to Shelter,[169] homes may become unsuitable for the following reasons:

- there are steep and/or narrow stairs at the property;
- the housing is too small for when a baby is born;
- the housing is only of a temporary nature (such as a hostel, women's refuge or staying with friends or family);
- the property's standard is so poor that it is unreasonable to stay in, e.g. the property could make the parent and/or baby ill, or it may not be safe);
- there are violent threats being made within the current household;
- someone else who might be expected to live in the property (e.g. the baby's father) is unable to live there as well; and
- the cost of the accommodation means basic essentials (such as food and heating) would become unaffordable.

### Race and ethnicity

Research by the Runnymede Trust highlighted that people from all BAME groups are more likely to live in overcrowded housing when compared to the White British population. Around 40 per cent of Black African and 36 per cent of Bangladeshi people in the UK live in overcrowded housing.[170]

### People who live in deprived areas

Access to occupier appropriate, low-cost housing can increase disposable income, in turn, preventing material deprivation (where individuals cannot afford non-essential goods and activities) and incentivise people to work.[171]

In terms of affordable housing supply, the continued reliance on higher rents to finance new housing development will ultimately increase poverty and the need for financial aid such as Universal Credit in the long-term. The sustainability of a home (energy efficiency and a reduction in fuel poverty) makes them cheaper to manage and therefore increases the affordability of a home.[172]

One report clearly states the following facts, highlighting the relationship between households with low income and unaffordable housing costs.[173]

- In the private rental sector, 18% of tenants are in poverty before housing costs are considered. This figure increases to 38% once housing costs are considered.

[168] Department for Communities and Local Government (2015): 'English housing survey: adaptations and accessibility report'
[169] Shelter Scotland (date unknown): 'Housing rights while pregnant'
[170] Runnymede Trust (2016): 'Ethnic inequalities in London: Capital for all'
[171] Joseph Rowntree Foundation (2015): 'Housing and poverty'
[172] Joseph Rowntree Foundation (2015): 'Housing and poverty'
[173] Joseph Rowntree Foundation (2013): 'The links between housing and poverty'

- In the social housing sector, 29% of social renters are in poverty before housing costs are considered. This figure increases to 43% once housing costs are considered.

### A.4.2 Sustainable residential developments

A recent report published by Transport for New Homes highlights that many new housing developments do not consider public transport or proximity to employment opportunities.[174] It is beneficial for new housing developments to explore potential for connectivity between those living in them and access to employment. To be sustainable, new housing developments must carefully consider the connectivity between pedestrians, cyclists, public transport and employment opportunities.[175]

The Government has previously expressed aspirations to locate high density housing within 0.5 miles of a transport hub, as this is likely to particularly support young, first-time buyers.[176] However new housing developments have been found to have accessibility and connectivity issues. New developments are found to be centred around car use with a lack of pedestrian and cycle-friendly infrastructure.[177]

#### Age: children and young people

A recent report published by Transport for New Homes mentions the importance of careful planning with regard to the location of new housing developments. The lack of adequate public transport can create a lack of opportunities for those who don't drive, particularly younger people.[178] This was found this to be important as younger people on average make proportionately more trips by public transport (bus, coach and rail) than other age groups.[179]

#### Age: older people

Buses are the most popular form of public transport for older people and they are used frequently. Thirty-nine per cent of people over 60 take a bus at least once a week.[180] Therefore, those people that are aged 60 and over, living in new housing developments are likely to have a need for access to public transport.

#### Disabled people

Inclusive design of new housing development creates buildings and places that are inclusive for all. Planning can help break down unnecessary physical barriers and exclusions caused by the poor design of buildings and places. Inclusive design acknowledges diversity and difference and is more likely to be achieved when it is considered at every stage of the development process, from inception to completion.[181]

Best practice inclusive design guidance identifies the following issues to consider:

- proximity and links to transport;

[174] Transport for new homes (2018): ‘Project summary and recommendations’
[175] Sustrans (2016): ‘Our position on how housing growth and planning policy can increase cycling and walking’
[176] Sustrans (2017): 'Linking active travel and public transport to housing growth and planning: Toolkit part 2: Planning housing growth to enable active travel and public transport'
[177] Sustrans (2017): 'Linking active travel and public transport to housing growth and planning: Toolkit part 2: Planning housing growth to enable active travel and public transport'
[178] Transport for New Homes (2018): 'Project summary and recommendations July 2018'
[179] House of Commons (2013) ‘Transport and accessibility to public services’; Transport for New Homes (2018): ‘Project Summary and Recommendations
[180] Age UK (2015): ‘The future of transport in an ageing society’; House of Commons (2013): ‘Transport and accessibility to public services’; Transport for New Homes (2018): ‘Project summary and recommendations’
[181] Transport for New Homes (2018): ‘Project summary and recommendations’; House of Commons, Women and Equalities Committee (2017): ‘Building for equality: Disability and the built environment’

- parking spaces and setting down points in proximity to entrances; and
- the positioning and visual contrast of street furniture and the design of approach routes to meet the needs of wheelchair users and people with visual impairments.[182]

#### Sex

Women's journeys, including those to work, tend to be shorter than men's, and therefore are more appropriate for active travel or public transport. However, women are twice as likely as men to fear for their safety whilst cycling and are more likely to organise their day around complex 'trip chains' (work-school-shopping).[183] This may hinder participation in cycling and contributes to the gender gap in uptake of cycling. Female commuter cyclists are more likely to prefer using off-road paths; evidence that can be used by designers to increase participation in cycling.[184]

#### People who live in deprived areas

Research has highlighted the importance of considering low income groups with new housing developments.[185] The location of housing can result in social exclusion and contribute towards transport poverty if not designed appropriately.

The ability to buy and sell Social Housing under the Right to Buy scheme has resulted in cheaper housing now commonly being located in more peripheral locations. As a result, such housing is further from employment centres. Without access to a car, public transport becomes an important factor for those living in peripheral housing estates to prevent transport-related barriers to employment.[186]

## A.5 Help reduce overall unemployment, particularly long-term and youth unemployment, by removing barriers, improving resilience and enabling growth?

### A.5.1 Youth unemployment

In the UK, youth unemployment is almost double that of any other age group, having increased from 10.8% in 2017 to 11.7% in 2018.[187] Young people often rely on public transport to access education, training and jobs so may be disproportionately affected by the cost of public transport.

#### Age: children and young people

Young people who are often in low paid work or have shorter shift patterns may not be offered adequate compensation for the transport costs of getting to work. Young people make more of their journeys by bus than the national average for all ages (15% compared to 7%).[188] Access to cheaper tickets, or higher paid work could address the financial impact associated with relying on public transport.[189]

#### Sex

[182] HM Government (2014): 'Design guidance'
[183] Mackett R L (2014): 'The health implications of inequalities in travel'
[184] Mackett R L (2014): 'The health implications of inequalities in travel'
[185] Sustrans (2017): 'Linking active travel and public transport to housing growth and planning: Toolkit part 2: Planning housing growth to enable active travel and public transport'
[186] Joseph Rowntree Foundation (2018): 'Tackling transport-related barriers to employment in low-income neighbourhoods'
[187] House of Commons Library (2019): 'Youth unemployment statistics'
[188] Campaign for Better Transport (2016): 'Why getting transport right matters to young people'
[189] Campaign for Better Transport (date unknown): 'Why getting transport right matters to young people'

Men aged 16-24 are more likely to be employed (12.5% in comparison to 10.8% for women of the same age).[190] The difference in unemployment likely relates to the increased prevalence of part-time working by women: in the UK, 42% of women were working part-time compared to 13% of men (2017 figures).[191]

### A.5.2 Barriers to employment

Barriers to employment as a result of transport can occur for a variety of reasons, often specific to each protected characteristic group. Understanding these barriers may help to develop an equitable transport system that opens a greater pool of employment opportunity.

#### Age: children and younger people

Research has highlighted the way that poor transport links restrict young people's employment opportunities, and that employers are often reluctant to employ young people who make long or complex journeys. This is particularly the case in rural areas.[192]

Transport barriers can also limit job search horizons. Young people are less likely to consider long journeys to work than other age groups.[193]

#### Age: older people

There are a variety of barriers that impact older people causing them to take fewer trips on public transport, including; mobility issues, the cost of travel, unreliability of services, parking, and confusion with transport systems. It has been shown that older people make a net contribution to the economy through expenditure in shops and employment, but also contribute to society through voluntary work and childcare.[194] Barriers to mobility are likely to hinder these positive contributions.

#### Disabled people

The unemployment rate in the UK for disabled people was 9.3% in July-September 2018, despite this rate having reduced, it is still nearly three times the national unemployment rate of 3.7%.[195] Whilst disabled people tend to travel less than people without disabilities, many still rely on public transport. There can be large variance in a person's travel patterns depending on what disability they have and its severity. According to the DfT's 'disabled peoples travel behaviour and attitudes to travel' report, having a learning or physical disability dramatically increases the chances of travelling by bus.[196] Around 60% of disabled people have no access to a car and therefore they use the bus around 20% more than their non-disabled counterparts.[197] Where there is an inability to rely on public transport, there is an increased reliance on expensive services such as taxis.

In 2017 the Government published a strategic document on how they plan to get one million people into employment over the next 10 years, ensuring that people are able to access employment that is 'personalised to their circumstances and integrated around their needs'.[198]

#### Gender reassignment

[190] House of Commons Library (2019): 'Youth Unemployment Statistics'
[191] House of Commons Library (2019): 'Women and the Economy'
[192] Joseph Rowntree Foundation (2010): 'Youth unemployment in rural areas'
[193] Centre for Cities (2014): 'Delivering change: Cities and the youth unemployment challenge'
[194] Roger Mackett (2013): 'Improving accessibility for older people: investing in a valuable asset'
[195] House of Commons Library (2018): 'People with disabilities in employment'
[196] DfT (2017): 'Disabled people's travel behaviour and attitudes to travel'
[197] Equality and Human Rights Commission (2017): 'Being disabled in Britain'
[198] HM Government (2016): 'Improving lives: The work, health and disability green paper'

In an online survey of 1,275 transgender people in the UK in April 2011, respondents' most widely-reported fear was for their safety on the streets and when using public transport, whilst just under half of respondents (47%) said their greatest worry was being a victim of a violent crime or harassment.[199] This highlights that transgender people who rely on public transport may be less willing to spend time commuting, reducing their pool of potential employment opportunities.

### Race and ethnicity

Unemployment rates for people from a BAME background are nearly twice that of people from a White background (6.7% and 3.5% respectively).[200] However, there is variation between different ethnic minority groups, with rates for people from Indian and Chinese backgrounds similar to that for White people.[201] Unemployment rates are highest for people from a Bangladeshi background (13%), followed by people from a Black or Pakistani background (9%).[202]

Poor transport can as a barrier to employment for people from BAME backgrounds. Access to a car or van is lowest for Black people (41%), mixed ethnicity (30%) and Asian (21%) in comparison with their White counterparts (19%). This means that Black people are more than twice as likely not to have access to a car or van than White people.[203] A lack of public transport available in the evenings can also impact on the type of employment people are able to access and can, for example, affect shift work. The research also found that this was particularly the case for ethnic minority groups concentrated in more deprived areas.[204]

Respondents to a focus group by the Black Environment Network in 2003 emphasised the lack of confidence by many people from a BAME community had in using public transport, especially for long, solo journeys, mainly due to fear for personal safety.[205] This is furthered by research from the Minority Ethnic Women's Network who found that many people from a BAME background feel uncomfortable being the only person from this demographic on the bus.[206] This outlines clear difficulties for people from a BAME background living in rural areas who are dependent on public transport to commute to work.

### Sex

Women on low incomes face barriers such as education and training, child care and transportation when they seek to access and maintain employment.[207] 72.1% of respondents to a DfT survey stated that lack of transport often limit the work opportunities that are available for this characteristic group. The main transport related barriers to employment:

- The lack of public transport that is available especially in rural areas and in the evening. This acts as a barrier as women won't be able to access their jobs or accept job offers.
- Transport costs.
- Lack of car ownership. Only 67% of females across the UK hold a driving license compared to 80% of men.[208]

[199] HM Government (2011): 'Headline findings from our transgender E-surveys'
[200] House of Commons Library (2019): 'Unemployment by ethnic background'
[201] House of Commons Library (2019): 'Unemployment by ethnic background'
[202] House of Commons Library (2019): 'Unemployment by ethnic background'
[203] DfT (2018): 'Car or van ownership'
[204] Joseph Rowntree Foundation (2014): 'How places influences employment outcomes for ethnic minorities'
[205] Black Environment Network (2003): 'Ethnic Minority Groups & Green Spaces'
[206] Minority Ethnic Women's Network (2005): 'Untangling the Web'
[207] National Partnership for Women and Families (1999): 'Obstacles Facing Low-Income Women'
[208] DfT (2016): 'Road Use Statistics Great Britain 2016'

In terms of cycling. Men make almost three times as many trips and travel almost four times further than women across the UK.[209] Research suggests that one of the biggest barriers to cycling for women was a lack of appropriate infrastructure contributing to them not feeling safe cycling.[210] Women also highlighted that if cycle lanes were separated from traffic and there were lower speed limits in place they would be more inclined to cycle.[211]

#### People who live in deprived areas

67% of passengers on local buses in England had an annual income of less than £25,000. Low income families use (and spend a larger proportion of their income on) bus travel.[212]

### A.5.3 Language

#### Race and ethnicity

Individuals for whom English is not their first language may have issues using the transport system related to comprehension of information.[213]

### A.5.4 Mode of transport

#### Race and ethnicity

The transport habits of people from a BAME background differ from White people. For example, DfT statistics show that White people travel 79% of their distances by car or van as opposed to 54% for Black people.[214] Similarly Black people made 14% of their distances travelled by rail as opposed to 8% by White people. This higher rate of use of public transport by people from a BAME background shows that they are likely to be disproportionately affected by changes to the public transport network.

## A.6 Creates or addresses deficiencies for green spaces that are safe and accessible to all?

Evidence suggests that access to green space,[215] especially in urban areas, can create significant benefits for those that use it, such as improved health and well-being, actual safety benefits and perceptions thereof, and social cohesion.[216] As a result, this assessment guide evidence looks at the benefits and accessibility of green space.

### A.6.1 Benefits of green space

Green space can provide an attractive and accessible space encouraging people to spend time outside and undertake physical activity, thus improving people's physical well-being. The health benefits of green space include reduced cardiovascular morbidity and mortality and reduced

[209] DfT (2016): 'Road Use Statistics Great Britain 2016'

[210] Sustrans (2013): 'Why don't more women cycle?'

[211] Sustrans (2013): 'Why don't more women cycle?'

[212] DfT (2017): 'Annual bus statistics: England 2016/17

[213] NWREN (2007): 'Barriers to employment opportunities for BMEs'

[214] DfT (2019): 'Travel by distance, trips, type of transport and purpose'

[215] A single authoritative definition of green and open space does not exist, for this report, green space refers to green, blue and open spaces that border the urban infrastructure such as parks, forests, street trees, squares, playing fields, river corridors and greenways. WHO (2016): 'Urban green spaces and health: A review of evidence'

[216] Department for Health (2010): 'Healthy lives, healthy people: Our strategy for public health in England'; Joseph Rowntree Foundation (2007): 'The social value of public spaces'

rates of obesity and diabetes.[217] Some research has even suggested that exposure and access to nature is as important as exercise or diet in terms of maintaining a healthy lifestyle.[218] A UK study found that those who live within 500 meters of accessible green space are 24% more likely to take part in 30 minutes of physical activity daily.[219]

### Age: children and younger people

Evidence indicates that children can begin to experience benefits from their mother's access to green space while they are still in the womb. Such benefits include a reduced chance of being born with a low birth weight.[220]

Research has found that children's physical activity increases when they live in proximity to green space.[221] Exposure to green space at home, at school and during commuting can improve cognitive development and function[222] and reduce the risk of ADHD in children.[223]

Several academics have also suggested that early life experience of nature can help to develop an environmental awareness, stewardship and a positive relationship with nature later on in life.[224]

### Age: older people

Green space can play a fundamental role in facilitating and promoting social interaction,[225] which in turn can support belonging and community[226] and improve happiness.[227] This is likely to benefit older people as they are often more vulnerable to loneliness and social isolation compared to the rest of the population.[228]

### Disabled people

Access to safe green spaces can have significant well-being benefits for everyone – but especially those with mental health problems. Since the late 1980s, when the first research on nature and mental health emerged, it has become more widely accepted that spending time in green space can reduce stress, restore thoughts and attention, initiate reflection, reduce mental fatigue and improve cognition.[229] The benefits of green space in improving mental well-being

[217] Mitchell R, Popham F (2008): 'Effect of exposure to natural environment on health inequalities: An observational population study'; Owen N, Healy GN, Matthews CE, Dunstan DW (2010): 'Too much sitting: The population-health science of sedentary behaviour'; WHO (2016): 'Urban green spaces and health: A review of evidence'
[218] Pretty, J.N. Griffin, M. Sellens, M. and Pretty, C.J. (2003): 'Green exercise: Complementary roles of nature, exercise and diet in physical and emotional well-being and implications for public health policy'
[219] Houses of Parliament, Parliamentary Office of Science & Technology (2016): 'Green space and health'
[220] Dadvand, P. Wright, J. Martinez, D. Basagana, X. McEachan, R.R.C. Cirach, M. Gidlow, C.J. De Hoogh, K. Grazuleviciene, R. and Nieuwenhuijsen, M.J. (2014): 'Inequality, green spaces, and pregnant women: Roles of ethnicity and individual and neighbourhood socioeconomic status'
[221] Davidson K and Lawson C (2006): 'Do attributes of the physical environment influence children's level of physical activity?'
[222] Dadvand, P. Nieuwenhuijsen, M.J. Esnaola, M. Forns, J. Basagana, X. Alvarezpedrerol, M. Rivas, I. Lopez-Vincente, M. De Castro Pascual, M. Su, J. Jerrett, M. Querol, X. and Sunyer, J. (2015): 'Green spaces and cognitive development in primary school children'
[223] Faber Taylor, A.F. and Kuo, F.E.M. (2011): 'Could exposure to everyday greenspaces help tread ADHD? Evidence from children's play settings'; Van Den Berg, A.E. and Van Den Berg, C.G. (2011): 'A comparison of children with ADHD in a natural and built setting'
[224] Finger, M. (1993): 'Does environmental learning translate into more responsible behaviour'; Louv, R. (2005): 'Last child in the woods: saving out children from nature-deficit disorder'; Palmer, J. A. (1993): 'Development of concern for the environment and formative experience of educators'; Wilson, E.O. (1990): 'Biophilia'
[225] Kim, J. and Kaplan, R. (2004): 'Physical and psychological factors in sense of community: New urbanist Kentland's and nearby orchard village'
[226] Pinder, R. Kessle, A. Green, J. Grundy, C. (2009): 'Exploring perceptions of health and the environment: A qualitative study of Thames chase community forest'
[227] Alcock, I. White, M. Wheeler, B.W. Fleming, L.E. and Depledge, M.H. (2014): 'Longitudinal effects on mental health of moving to greener and less green urban areas'
[228] NHS (2018): 'Loneliness in older people'; WHO (2016): 'Urban green spaces and health: A review of evidence'
[229] Hartig, T. Mang, M. Evans, G.W (1991): 'Restorative effects of natural environment experiences'; Hartig, T. Mitchell, R. De Vries, S. and Frumkin, H. (2014): 'Nature and health'; Herzog, T. Black, A.M. Fountaine, K.A. Knotts, D.J (1997): 'Reflective and attentional recovery as distinctive benefits of restorative environments'; Kaplan, R and Kaplan, S (1989): 'The experience of nature: A psychological perspective'; Ulrich, R.S, Simmons R.F, Losito B.D, Fiority, E, Miles, M.A and Zeison, M. (1991): 'Stress recovery during exposure to natural and urban environments'

are now often included as part of a green agenda in some mental health treatment programs, known as ecotherapy.[230]

### Pregnancy and maternity

According to the NHS, many women experience prenatal and postnatal depression.[231] Access to green space can benefit these women and their unborn children as evidence suggests that green space can reduce blood pressure and depression amongst these individuals.[232]

### People who live in deprived areas

Research suggests that access to green space can reduce chronic stress, especially in adults living in deprived neighbourhoods.[233] Additionally, there is evidence to suggest that the benefits of improving the availability of green space for socioeconomically disadvantaged groups can be significantly greater as it can help to reduce health inequalities.[234]

## A.6.2 Access barriers to green space

The accessibility of green spaces is often inequitable and groups with protected characteristics often have poorer access to green space compared to the rest of the population, as discussed below.[235]

### Age: children and young people

A study by University College London has found that children who lived in areas with more green space outperformed those from areas with less green space.[236] Evidence also suggests that access to green space is linked to deprivation as children residing in the most deprived neighbourhoods are nine times less likely to have access to green space and places to play compared to children residing in the least deprived neighbourhoods.[237] Additionally, the Marmot review highlights the importance of children having access to quality green space, as poorly designed and maintained green spaces can impact the safety of green space as well as children's perception of safety.[238]

### Age: older people

The quality of green space and the presence of specific amenities, such as toilets, can play a significant role in the accessibility of green spaces for older people.[239] Evidence from Age UK suggests that although older people are generally at a lower risk of crime compared to other ages, they are often more fearful of crime[240] and fear of crime and concerns about safety can

[230] Mind (2019): 'Nature and mental health'
[231] NHS (2016): 'Clinical depression'
[232] Grazuleviciene, R. Dedele, A. Danileviciute, A. Venclovine, J. Grazulevicius, T. Andrusaityte, S. Uzdanaviticute, I and Nieuwenhuijsen, M.J. (2014): 'The influence of proximity to city parks on blood pressure in early pregnancy'; McEachan, R.R. Prady, S.L. Smith, G. Fairley, L. Cabieses, B. Gidlow, C. Wright, J Dadvand, P. Van Gent, D and Nieuwenhuijsen, M.J. (2016): 'The association between green space and depressive symptoms in pregnant women: moderating roles of socioeconomic status and physical activity'
[233] Roe, J.J. Thompson, C.W. Aspinall, P.A. Brewer, M.J. Duff, E.I. Miller, D. Mitchell, R. and Clow, A. (2013): 'Green space and stress: Evidence from cortisol measures in deprived urban communities'; Ward Thompson, C. Roe, J. Aspinall, P. Mitchell, R. Clow, A. and Miller, D. (2012): 'More green space is linked to less stress in deprived communities: Evidence from salivary cortisol patterns'
[234] Allen J, Balfour R (2014): 'Natural solutions for tackling health inequalities'
[235] Burgess, J. Harrison, C.M. and Limb, M. (1998): 'People, parks and the urban green: A study of popular meanings and values for open spaces in the city'; Natural England (2011): 'Green space access, green space use, physical activity and overweight'
[236] UCL (2018): 'Greener neighbourhoods may be good for children's brains'
[237] National Children's Bureau (2013): 'Greater expectations: Raising aspirations for our children'
[238] Marmot Review Team (2011): 'The health impacts of cold homes and fuel poverty'
[239] Aspinall P.A. Thompson C.W. Alves S. Sugiyama T. Brice R. Vickers A. (2010): 'Preference and relative importance for environmental attributes of neighbourhood open space in older people'
[240] Age UK (2006): 'Crime and fear of crime: Help the aged policy statement 2006'

undermine their use of green space.[241] Moreover, if green spaces are poorly designed and maintained they can increase the incidents of crime and anti-social behavior.[242]

### Disabled people

The design and maintenance of green space and access routes to green space, can significantly impact its accessibility to disabled people. Fully accessible environments support both the confidence and mobility of disabled people, therefore ensuring they are able to use the pedestrian environment and green spaces fully and independently.[243]

### Race and ethnicity

Research has found that in urban areas, BAME groups tend to have less access to local green space and the green space they have access to are often of poor quality. For example, in the UK, wards with a BAME population of less than 2% have six times at much green space as wards where the BAME population is over 40%.[244]

Evidence also shows that safety of urban green space is particularly important to BAME groups as these groups may perceive themselves as vulnerable when visiting urban green spaces due to previous experiences of victimisation or harassment. Such experiences can result in BAME groups feeling fearful of urban green space.[245] As a result, appropriately managed and maintained green spaces can help to ensure all its users, especially BAME groups, feel and are safe using green space.[246]

### Sex

Evidence also shows that safety of urban green space is particularly important for women. Women are more likely to feel vulnerable when in urban green spaces, and therefore green spaces must be appropriately designed, managed and maintained to ensure all its users, especially women feel and are safe using them.[247]

### People who live in deprived areas

There is evidence to suggest that people from deprived backgrounds have disproportionately less access to green space compared to the rest of the population. For example, research by the Commission for Architecture and the Built Environment highlights that the most deprived wards in the UK have on average 20% of the area of green space that is available in the most affluent wards.[248] Research also suggests that people living in areas with low levels of green space, are 66% more likely to be physically inactive and 40% more likely to be overweight than people living in areas with high levels of greenspace.[249]

[241] Walker, G. (2012): 'Environmental justice: Concepts, evidence and politics'
[242] Houses of Parliament, Parliamentary Office of Science & Technology (2016): 'Green Space and Health'
[243] Houses of Parliament, Parliamentary Office of Science & Technology (2016): 'Green Space and Health'; Living Streets (2016): 'Overcoming barriers and identifying opportunities for everyday walking for disabled people'
[244] Commission for Architecture and the Built Environment (2010): 'Urban green nation: Building the evidence base'
[245] WHO (2016): 'Urban green spaces and health: A review of evidence'
[246] Burgess, J. Harrison, C.M. and Limb, M. (1998): 'People, parks and the urban green: A study of popular meanings and values for open spaces in the city'; Natural England (2011): 'Green space access, green space use, physical activity and overweight'
[247] Burgess, J. Harrison, C.M. and Limb, M. (1998): 'People, parks and the urban green: A study of popular meanings and values for open spaces in the city'; Natural England (2011): 'Green space access, green space use, physical activity and overweight'
[248] Commission for Architecture and the Built Environment (2010): 'Urban green nation: Building the evidence base'; WHO Regional Office for Europe (2012): 'Addressing the social determinants of health: The urban dimension and the role of local government'
[249] Ellaway, A. Macintyre, S. and Bonnefoy, X. (2005): 'Graffiti, greenery and obesity in adults: Secondary analysis of European cross sectional survey'

## A.7 Create a travel environment that is (and feels) safe for all users, day and night?

### A.7.1 Fear of crime and antisocial behaviour

The fear of crime is the anxiety people feel about potentially being a victim of crime. It does not necessarily relate to the probability of being a victim of crime, but instead can be influenced by external factors and narratives.

#### Age: children and younger people

Research has revealed that young people are most likely to be involved in crime on public transport. They are particularly likely to both commit and be victims of low-level disorder and antisocial behaviour. A result of this is that young people are prone to see public transport as a hostile environment.[250]

In terms of spending time outside, fear of crime has been linked to a reduction in the time spent walking or playing among children. Older children who state that they prefer not to walk to school commonly cite safety concerns as one of their reasons for this preference.[251] 'Eyes on the street' is a key factor for people when deciding whether a street is deemed safe or not. Areas where there are a higher number of people partaking in outdoor activities such as walking, cycling or using public transport are perceived to be safer than areas or streets with fewer people. Thus, feelings of safety play an important role in whether people consider certain streets a safe place to walk or cycle, highlighting the link between personal safety and physical activity.[252]

#### Age: older people

Concern about antisocial behaviour and crime has been found to be a significant barrier to public transport use by older people, this is second only to concerns relating to overcrowding.[253] Older people may also feel more vulnerable at night, this was highlighted by a Department for Transport study that found that older people feel most at risk during 'walking and waiting' elements of their journeys. A proposed solution to this was to increase the use of good quality street lighting to contribute towards a safer travel environment after dark.[254] Research has found that older people are concerned about travelling through subway tunnels or on footbridges, as these were found to be quieter areas and a greater fear of crime was felt.[255] As discussed above, perceived safety as a result of higher numbers of people using certain streets contributes to a reduced fear of crime among older people.[256]

#### Disabled people

Evidence relating to fear of crime for disabled people tends to centre around harassment rather than more physical forms of crime. A survey carried out by Muscular Dystrophy UK in 2016 showed that nearly 15% of respondents had experienced harassment or verbal abuse on a train in the previous three years, with this rising to 20% in relation to bus travel.[257]

[250] British Transport Police Authority (2008): 'Fear of crime and concerns about personal safety on the rail network: Summary of findings from existing research: 2008 update'
[251] Active Living Research (2015): 'Creating places the promote physical activity: Perceiving is believing'
[252] Active Living Research (2015): 'Creating place that promote physical activity: Perceiving is believing'
[253] TfL (2013): Attitudes to safety and security: Annual report'
[254] DfT (2012): 'Transport solutions for older people: Information resource for Local Authorities'
[255] Anciaes, P. (2014): 'Community severance: Where is it found and at what cost?'
[256] Active Living Research (2015): 'Creating places that promote physical activity: Perceiving is believing'
[257] Muscular Dystrophy UK (2016): 'End of the line'

Although not transport specific, reports into hate crimes against disabled people reveal a high, and increasing, rate of hate crime against this particular group of people. A 2016 survey that focused on people with a learning disability or autism revealed that 73% of respondents had been the victim of a hate crime, with 53% of respondents having experienced such crimes in the year leading up to the study.[258] Home Office statistics for 2017/18 show that disability hate crime accounted for 8% of all hate crimes that were reported to, and recorded by, the police. The number of hate crimes carried out towards disabled people rose by 30% compared to the previous year, and this increase in numbers suggests that disabled people are at an increased risk of becoming a victim of such hate crimes.[259] Although these figures do not relate to experiences of public transport, this group may be at a disproportionate risk of becoming a victim of crime on transport networks.

### Gender reassignment

In a similar vein to disability hate crimes details above, there is limited data relating to transgender related hate crimes. However, evidence available shows that in 2018 the number of transgender related hate crimes that were reported to the police was 32% higher than in the previous year. As mentioned in the previous section, although this data does not directly relate to experiences of travel environments, it shows that people going through the gender reassignment process are increasingly likely to become a victim of hate crime in their day-to-day lives. It would therefore be worthwhile to consider this group of people when exploring the actual, and perceived, safety of transport networks.

### Race and ethnicity

There is evidence to suggest that people from a BAME background have greater concerns than White people about their personal safety when travelling, particularly at night.

It has been highlighted in research that people from a BAME background fear racial attacks when using public transport, thus potentially causing a barrier to their use of transport networks.[260] These fears were particularly felt among Asian individuals who discussed their concern over being stereotyped as a terrorist. Other barriers are borne out of a fear of antisocial behaviour both on modes of transport and in and around stations.[261]

A report by Transport for London found that people from a BAME background were more likely to state that their frequency of travel is affected as a result of these concerns.[262] Results to a different Transport for London study revealed that 52% of BAME respondents feel safe walking after dark, compared to nearly 65% of White people.[263]

Hate crimes relating to race increased by 14% in 2018 compared to figures for 2017. Data shows that Asian adults (1.1%) and Black adults (0.6%) are more likely to be a victim of racial hate crime, compared to White adults (0.1%).[264] This data highlights the fact that people from non-White ethnic groups are at an increased risk of becoming victims of hate crime.

### Religion and belief

Religious hate crimes increased by 40% in 2018 compared to 2017. Analysis of these Home Office statistics show that Muslim adults are most likely to become victims of racially motivated hate crimes. In 2016 the Home Office began to include perceived hate crimes in their data, and

[258] Dimensions (2016): 'I'm with Sam: No more learning disability and autism hate crime'
[259] Home Office (2018): 'Hate crimes, England and Wales, 2017/18'
[260] DfT (2012): 'Transport for Everyone: An action plan to promote equality'
[261] TfL (2012): 'Understanding the travel needs of London's diverse communities: BAME'
[262] TfL (2013): 'Attitudes to safety and security: Annual report'
[263] TfL (2012): 'Understanding the travel needs of London's diverse communities: BAME'
[264] Home Office (2018): 'Hate crime, England and Wales, 2017/18'

in 2017/18 it was reported that 52% of hate crimes (including perceived) were committed against Muslim people. The second most targeted religious group was Jewish people, accounting for 12% of religious hate crime carried out. These figures are disproportionately high given the proportion of the English and Welsh population identifying as Muslim (4.8%) and Jewish (0.5%).[265] Although this data does not specifically relate to experience of public transport, it shows that certain groups of people, particularly Muslims, face an increasing risk of being victims of religious hate crime.

### Sex

The transitory nature of public transport is arguably a factor that influences the types of crime that occur within transport networks. Women are more likely than men to experience unwanted sexual behaviour while travelling on public transport, and perhaps as a result of this fact, are more likely to experience moments of concern or worry.[266] A 2013 study conducted by Transport for London found that 15% of women had experienced unwanted sexual behaviour while travelling on London's transport network in the year prior to the study. Of these, 90% were not reported to the police. The most common behaviour discussed in the study was unwanted groping, touching, staring and sexual comments. It was found that sexual harassment is most common during rush hour, on busy services. This is perhaps because it is less obvious who the perpetrator is, it also may mean that women are less likely to react as they are in a busy, enclosed space and worry about causing a scene.[267]

Evidence suggests that women are more likely to exercise caution when travelling. They are more likely to travel on familiar routes or journeys, and when this is not possible women are more likely to seek advice or do pre-travel research to feel more reassured.[268] Research published by Neighbourhood Watch draws on a survey that the organisation conducted. The survey highlighted the difference between men and women in terms of feelings of safety and street lighting. When walking in a badly lit neighbourhood, women were considerably more likely to report feeling 'very unsafe' when compared to men; 48% compared to 19%, respectively. Similarly, almost twice as many men than women said that they were 'not bothered' by low or no lighting and / or were happy with current lighting levels in their neighbourhood. The survey results also showed that three times as many women than men said that they would modify their activities based on lighting levels, such as avoiding walking in the dark.[269]

Young men aged 16 –19 are more likely to be victims of crime on the public transport network compared to all other groups. Despite this, research has shown that men are less fearful of crime than women. Of types of crime that are feared by men violent crime, and particularly confrontation and assault by other groups of men was stated as being one of the most commonly feared crimes.[270]

### Sexual orientation

Home Office data shows that hate crimes relating to a person's sexual orientation increased by 27% from the previous year.[271] Although this data does not specifically focus on experiences when using public transport, it shows that crime relating to this characteristic are increasing. Research into fear of hate crime found that 26% of LGB people avoid certain streets because

[265] Home Office (2018): 'Hate crime, England and Wales, 2017/18'
[266] TfL (2013): 'Attitudes to safety and security: Annual report'
[267] Parliament UK (2018): 'Women and girls' safety on public transport'
[268] Susilo, Y. and Cats, O. (2014): 'Exploring key determinants of travel satisfaction for multi-modal trips by different traveller groups'
[269] Neighbourhood Watch (2013): 'Street lighting and perceptions of safety survey, November 2013'
[270] British Transport Police Authority (2008): 'Fear of crime and concerns about personal safety on the rail network: Summary of findings from existing research: 2008 update'
[271] Home Office (2018): 'Hate crime, England and Wales, 2017/18'

they don't feel safe there. This figure doubles for those who have been the victim of a hate crime in the last 12 months.[272] Therefore, it should be noted that people's sexual orientation may factor in to people's decisions about particular modes of transport use.

### People who live in deprived areas

Evidence has shown that people living in deprived neighbourhoods are significantly more likely to feel unsafe and believe that crime is a significant problem in the areas that they are living. According to a survey conducted in 2016, 42% of people living in the most deprived areas feel unsafe, this is compared to 15% of people living in the most affluent, and the national average of 26%.[273] This data shows that fear of crime for people living in deprived areas may be less likely to go out walking or cycling, causing a reduction in physical activity. Improving feelings of safety can encourage more people to use the local area and increase their levels of activity.[274]

## A.7.2 Road safety for drivers and pedestrians

Road safety encompasses accidents on the road between vehicles, but also between pedestrians and vehicles. This section also considers other road features such as pedestrian crossings that influence the safety of pedestrians.

### Age: children and younger people

Young people aged 17 – 24 represent over 20% of drivers killed or seriously injured in road traffic accidents, despite accounting for just 7% of driving license holders.[275] Drivers aged 17 – 19 are 30% more likely to be involved in an accident than drivers aged 40 – 49.[276] Research by road safety charity Brake highlights that young drivers are more likely to take serious risks including speeding, overtaking on blind corners, driving on drugs and not wearing a seatbelt. It also suggests that young people are less likely to rate certain high-risk behaviours as high risk.[277]

In 2016, 25% of all pedestrian casualties were children, 29 out of 34 child fatalities in the same year occurred in urban areas. This clearly shows that urban areas are where children are most at risk of being involved in a road related accident.[278] Research also shows that there is a rise in the number of accidents between the ages of 9 – 12, this could be linked to children becoming more independent at that age such as playing outside without supervision, or travelling short distances independently, such as walking to school.[279]

Research by Brake found that faster speed limits affect people's perceptions of danger and can be a determining factor in people choosing not to walk or cycle on their journeys. Slower speed limits, such as the use of the widely implemented 20mph in urban areas, gives drivers a much improved chance of stopping in time for a pedestrian.[280] Research has shown that deaths and serious injuries were reduced by 43% after the introduction of 20mph zones alongside traffic calming measures (such as speed bumps and chicanes).[281] Children cannot judge the speed of vehicles going above 20mph which can result in children believing that it is safe to cross when it

[272] Stonewall (2017): 'LGBT in Britain: Hate crime'
[273] Ipsos MORI (2016): 'Public views of policing in England and Wales. Research report for Her Majesty's Inspectorate of Constabulary'
[274] Active Living Research (2015): 'Creating places that promote physical activity: Perceiving is believing'
[275] DfT (2018): 'Reported road casualties Great Britain: 2017 annual report'
[276] DfT (2015): 'Reported road casualties Great Britain: 2014 annual report'
[277] Brake and Direct Line (2012): 'Young drivers'
[278] RoSPA (2018): 'RoSPA pedestrian safety policy paper'
[279] RoSPA (2018): 'RoSPA pedestrian safety policy paper'
[280] RoSPA (2016): 'Inappropriate vehicle speed'
[281] British Medical Journal (2009): 'Effect of 20mph traffic speed zones on road injuries in London 1986 – 2006'

is not. A 20mph speed limit also gives drivers a much-improved chance of stopping in time for a child who crosses the road.[282]

### Age: older people

Safety concerns relating to older people often focus on road crossings, as highlighted in research by Age UK.[283] The concerns raised highlight that crossings do not allow enough time for older people to cross safely. For example, pelican crossings assume that pedestrians cross at a rate of 1.2 meters per second, however when considering men and women over the age of 65, 76% of men and 85% of women walk at a slower speed.[284] This data shows that pelican road crossings do not accommodate for those who may require extra time to cross.

Pedestrian safety among older people is reduced from the age of 60. Research shows that 40% of pedestrian deaths are among people aged 60 and over. The risk of being involved in a road casualty increased very rapidly for people between the ages of 70 – 79, and increases substantially from age 80 onwards.[285] Evidence shows that accidents among older pedestrians are most likely to occur during the daytime within 1km of their home.[286] Road accidents where the driver is elderly have been shown to be more likely to result in death or severe injury.[287] Further research showed that in 2014 there was a 6% increase in total road accident casualties reported to the police when compared to 2013. Of this increase, almost three quarters were older (aged 60 and over) pedestrians. This is due to the risk of being an older pedestrian compared to being an older driver: pedestrians and cyclists are approximately eleven times more likely to be killed in a road accident when compared to car occupants.[288]

Research has shown that older drivers are generally safer than those from younger age groups. Accident rate data shows that involvement in an accident is lowest for drivers aged 70-79. However, data from 2017 showed that drivers who are aged 70 and over and who were involved in a 'killed or seriously injured' (KSI) road traffic accident, 13% died. This fatality rate is the highest when compared to all other age groups. Further to this, drivers aged 60-69 had an average of 18.8 KSI casualties per billion miles driven. This figure increases drastically for those aged over 70 to 56.7 per billion miles driven. These statistics are mostly due to the increase in fragility with age.[289]

### Disabled people

Disabled pedestrians with reduced mobility may take longer to cross roads, and as above, this raises issues about how road crossings accommodate people who have slower mobility. Research has also shown that people who are in wheelchairs, using crutches or have other mobility issues are likely to feel more vulnerable and are therefore more likely to choose to cross roads at designated crossings.[290] There is no evidence to show that private vehicle accidents for disabled people differ to those of people who are not disabled, yet road accidents involving drivers with pre-existing medical conditions are more likely to result in serious injury or death.[291]

[282] Brake (2017): 'Speed limits in communities: Key facts'
[283] Age UK (2015): 'The future of transport in an ageing society'
[284] Age UK (2015): 'The future of transport in an ageing society'
[285] RoSPA (2018): 'RoSPA pedestrian safety policy paper'
[286] RoSPA (2018): 'RoSPA pedestrian safety policy paper'
[287] TRL (2018): 'Data gathering on disability and driving statistics: Summary report'
[288] Road Safety Observatory (date unknown): 'Older drivers'
[289] Road Safety Observatory (date unknown): 'Older drivers'
[290] TfL (2018): 'Pedestrian safety literature review'
[291] TRL (2018): 'Data gathering on disability and driving statistics: Summary report'

Recent research highlighted that disabled people are more likely to be involved in a pedestrian collision than their non-disabled counterparts. The risk is said to be higher for the following reasons:

- those with mobility impairments may cross the road slowly, they may also be at risk of falling if the surface is uneven;
- wheelchair users might experience difficulties if a kerb is not dropped or if there are a lack of accessible routes. Wheelchair users may also be less visible to motorists;
- those with a sight or hearing impairment may be unable to anticipate the actions of other road users; and
- those with learning disabilities might experience difficulties in making good judgements about safety, such as when it is safe to cross a road.

The report also states that both UK and international groups representing the visually impaired have raised concerns regarding electric vehicles. The low noise levels generated by electric vehicles can pose an increased risk to visually impaired pedestrians.[292]

### Sex

Data released by the DfT shows that in 2017, 62% of casualties (driver and pedestrian) in the 17-24 age group were male.[293] This data is supported by the road charity Brake; the charity has reported that, in Britain, men account for 74% of road traffic deaths, 70% of serious injuries and 59% of slight injuries from the roads. Male drivers account for 95% of convictions for deaths caused by dangerous driving.

With pedestrians, female pedestrians account for just over half of journeys made by foot in the UK (52%), but men make up the majority of pedestrian casualties (57%).[294]

### People who live in deprived areas

A 2018 study into pedestrian safety revealed that children who live in deprived areas are at a greater risk of being involved in a road related accident when compared to other children.[295] Children living in the most deprived quintile are six times as likely to be involved in an accident than those living in the least deprived quintile.[296] This data highlights the disparity in road safety between deprived areas and areas that are more affluent. When combining deprivation data with the total distance walked by Killed or Seriously Injured (KSI) casualties, there is a considerable difference between quintile groups. The casualty rate for people in the most deprived quintile is 0.58 KSI casualties per million miles walked. This figure is halved for those in the least deprived quintile; 0.28 KSI casualties per million miles walked.[297]

A University College London research report also focussed on the lack of safety and public security in deprived areas. The report states that those living in deprived areas may fear that they are exposed to high levels of traffic risk, such as illegal and hazardous driving (speeding, parking on pavements, driving aggressively). Deprived communities may also view the dangerous behaviour as exacerbated by the perceived lack of visible enforcement. For example, there might be no consequence for people parking on pavements or near junctions, using mobile phones whilst driving or not stopping at pedestrian crossings. This can result in deprived communities feeling as though nothing is being done to improve safety in the

[292] RoSPA (2018): 'RoSPA pedestrian safety policy paper'
[293] DfT (2018): 'Reported road casualties in Great Britain: 2017 annual report'
[294] Brake (2014): 'Driver gender: Key facts'
[295] RoSPA (2018): 'RoSPA pedestrian safety policy paper'
[296] RoSPA (2018): 'RoSPA pedestrian safety policy paper'
[297] DfT (2015): 'Facts on pedestrian casualties'

area.[298] Research suggests that the reasoning behind higher casualty rates in more deprived areas may be due to a lack of road safety awareness, living in areas with poorer quality road infrastructure or being exposed to drivers with a higher risk of accidents.[299]

[298] UCL (2014): 'Transport and poverty: A review of evidence'
[299] DfT (2015): 'Facts on pedestrian

# B. Stakeholder engagement evidence

This appendix sets out the findings from a series of telephone interviews conducted with stakeholders in the Combined Authority region, providing a local perspective on the potential impacts of the LTP against the assessment guide questions on people with protected characteristics and public health.

## B.1 Involved organisations

The below organisations participated in the research.[300]

- Cambridge City Council
- Cambridge Housing Society (CHS) Group
- Campaign for Better Transport
- Camsight
- Care Network
- Peterborough Disability Forum
- Ramsey Neighbourhoods Trust
- Smarter Cambridge Transport
- South Cambridgeshire District Council
- Voluntary and Community Action East Cambridgeshire

## B.2 Reduce the number of people, particularly the vulnerable, exposed to particulates and nitrogen dioxide concentrations, helping to achieve national and international standards for air quality and reduce carbon emissions?

Stakeholder feedback highlighted that air quality is poor on main roads and those that lead into urban centers as there is often congestion from buses and private vehicles. This congestion has been made worse in some areas because traffic calming measures sometimes cause idling. Stakeholder feedback highlighted that air pollution is more likely to negatively impact people who are deprived as they tend to reside on or near main roads.

## B.3 Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?

Stakeholder feedback has highlighted that bus services are poor between rural villages and from rural villages to main hubs/city centers, which can lead to loneliness and social isolation, particularly amongst older people, single parents, disabled people, people who are deprived and younger people who are unable to drive or are reliant on public transport. Moreover, a lack of reliable and frequent busses, especially in the evenings and on Sundays deters these people from using the bus services altogether.

[300]The purpose of the stakeholder engagement was to gather feedback from a wide range of interested stakeholders. The evidence and information generated from the stakeholder engagement was fed into the community impact assessment. This report pulls together the range of evidence from sources and stakeholders and provides overview recommendations but may not represent the views of each individual stakeholder.

There is a lack of adequate public transport infrastructure to enable young people and older people to get around independently without the help of parents/carers or community transport associations and private cars. People with visual impairments are also reliant upon friends, families or charities for transport, especially to get to hospital appointments and to buy food and to help them navigate often complicated environments.

Moreover, stakeholder feedback has highlighted that there are physical barriers created by the transport infrastructure which can create severance for many people living in rural villages. For example, railway lines and busy roads without safe and frequent crossings.

## B.4 Improve access to sustainable transport modes including public transport and active travel?

Stakeholder feedback has highlighted that the provision of public transport outside of city centers is poor. Trains are not always a viable option as many areas do not have stations - or physically accessible ones. This can prevent pushchair users and people with mobility impairments from using the train. Additionally, the frequency of rail services and journey times was identified as a major barrier to their use. As mentioned above, the provision of bus services is perceived to be poor by stakeholders. They feel that where there is provision it is often under-utilised as it is unreliable, infrequent, expensive and inaccessible. For example, people with visual or hearing impairments can find bus announcements and signs are not always utilized on their behalf. Additionally, the perceived unreliability of bus services can impact the confidence and accessibility of bus passengers with learning disabilities.

Stakeholder feedback highlighted that there is demand for walking and cycling networks across the Combined Authority. However, many do not use active travel due to a perceived lack of safe active transport infrastructure.

Where there are cycle paths they are deemed to be of good quality, but there can be confusion between cyclists and pedestrians over who has priority. This can be an issue for disabled people, such as those with visual, hearing and mobility impairments. Additionally, a lack of safe cycling infrastructure at major junctions has been identified by stakeholders as a barrier to the uptake of cycling.

Overall, stakeholder feedback highlighted that the combination of a lack of public transport provision and a perceived lack of safe active transport infrastructure creates reliance on private vehicles. Stakeholder feedback also highlighted that to create a widespread modal shift to more sustainable transport, other modes of transport need to become more convenient, affordable, frequent and accessible than using private vehicles.

## B.5 Help to facilitate the delivery of housing that meets the needs of the population including ensuring access to new and existing sustainable residential developments?

Stakeholder feedback highlighted the importance of ensuring transport infrastructure is updated in line with housing growth targets. There are lots of new developments across the region, but sustainable transport is often only considered after developments have commenced or once housing is built, which can result in poor uptake of walking or cycle paths when they are finally built, as new residents are already in the habit of using other modes of transport such as private vehicles.

It was felt that the cost of housing, including affordable housing, is relatively expensive in Cambridge, compared to the national average, especially in the southern areas. Subsequently,

people that work in Cambridge often have to live further away which means they are more reliant on public transport to commute to and from work.

### B.6 Help reduce overall unemployment, particularly long-term and youth unemployment, by removing barriers, improving resilience and enabling growth?

Stakeholder engagement found that the lack of public transport in some areas impacts people's ability to access employment opportunities. Some more rural, isolated communities have few bus services, particularly in the evenings and at weekends. This can make shift work particularly difficult. The lack of security and stability of such bus services can also make local people worry about accepting jobs that would rely on this transport as a means of access.

Funding cuts to bus services have made them more expensive and potentially unaffordable. Although some disabled people are eligible to receive a subsidised bus pass, this cannot be used in peak times. This can make accessing employment difficult.

### B.7 Creates or addresses deficiencies for green spaces that are safe and accessible to all?

In parks and open spaces there is often not a clear demarcation between cycle lanes and pedestrian paths, there is a perception among some stakeholders that this can make some spaces seem unsafe for some people; particularly those with reduced mobility, or with a visual or hearing impairment. There was a fear that a lack of clear separation between cyclists and pedestrians may result in people getting injured as a result of walking in the wrong area.

Additionally, stakeholder feedback highlighted that although there are some public footpaths and bridal ways in the Combined Authority, there is a lack of green space for recreation in the area and where green space does exist outside of city centres public transport to them is poor.

### B.8 Create a travel environment that is (and feels) safe for all users, day and night?

Engagement with stakeholders highlighted that women are more likely than men to feel unsafe when travelling at night due in part to the night time economy such as rowdy bars or clubs. Older people are also likely to feel vulnerable at night while using public transport, as a result of this they may be more inclined to use their car or other forms of private transport to travel after dark.

Lighting and suitable surfaces were shown to be an important aspect in improving people’s feelings of safety after dark. It was highlighted that for older people and people with visual impairments having good lighting and flat paths not only helped with feelings of safety but also made being out at night more accessible. In rural areas a lack of street lighting provision combined with often winding and narrow roads with uneven paths/dirt tracks, leaves both pedestrians and drivers feeling unsafe at night.

Stakeholder feedback highlighted that one of the main safety concerns regarding active transport, amongst all people, is fear of safety when there is no segregation from major vehicle traffic.

Stakeholder feedback emphasised the vulnerability felt by disabled people due to fears of harassment but also from the anxiety over whether they will be able to access certain modes of transport. There has recently been a move to encourage members of the public to report suspicious things on trains, with the introduction of National Rail’s ‘See it, say it, sort it’ campaign. However, shifting the responsibility to passengers has many benefits, but also increases the chances of people acting upon discriminatory practices, resulting in Muslim and

Asian people more likely to be reported. Large numbers of hate crime go unreported (according to a report carried out by South Cambridge City Council, only 5% of hate crimes against LGB people are reported). It was felt that by having schemes to encourage people to report hate crimes, either on behalf of others or themselves, could make people feel safer on public transport.

In relation to pedestrian and cyclist safety it was highlighted that at floating bus stops it is not clear who has right of way and this leads to people and cyclists colliding as passengers alight the bus.

Disabled people can fear the use of shared space due to cyclists travelling at speed close by them. Designated pedestrian and cycling areas would improve concerns for both cyclists and pedestrians. In the city of Cambridge, narrow roads and pavements make it difficult for people in wheelchairs; ‘clutter’ on pavements such as bikes on lampposts, cars parked up on kerbs and wheelie bins, add to a wealth of obstacles people with physical impairments must navigate. This in turn increases the risk of accidents, some of which could potentially be dangerous.

# C. Socio-demographic characteristics appendix

## C.1 Introduction

This chapter fully profiles the socio-demographic profile of the Combined Authority. This includes the profile by protected characteristic groups as defined by the Equality Act 2010 and other socio-demographic statistics including deprivation, household car availability and life expectancy at birth.

Some of the maps that follow show areas in blue, which indicate low population density, areas in green and yellow, indicating moderate density and areas in orange and red, indicating high density. Others demonstrate the proportion of population – low levels are indicated in blue, areas, moderate levels in green and yellow and high levels in orange and red.

## C.2 Age

This section explores key age brackets that may experience disproportionate impacts when compared with the general population:

- Children (aged under 16 years old);
- Younger people (aged 16 to 25 years old); and
- Older people (aged 65 and over years old).

### C.2.1 Children (under 16 years old)

The table below indicates that the proportion of people living in the Combined Authority who are under 16 years old is 19.6% which is in line with the national figure (19.1%). The districts have proportions that range between 16.6% (Cambridge) and 22.9% (Peterborough).

**Table 42: Number and proportion of people under the age of 16 years**

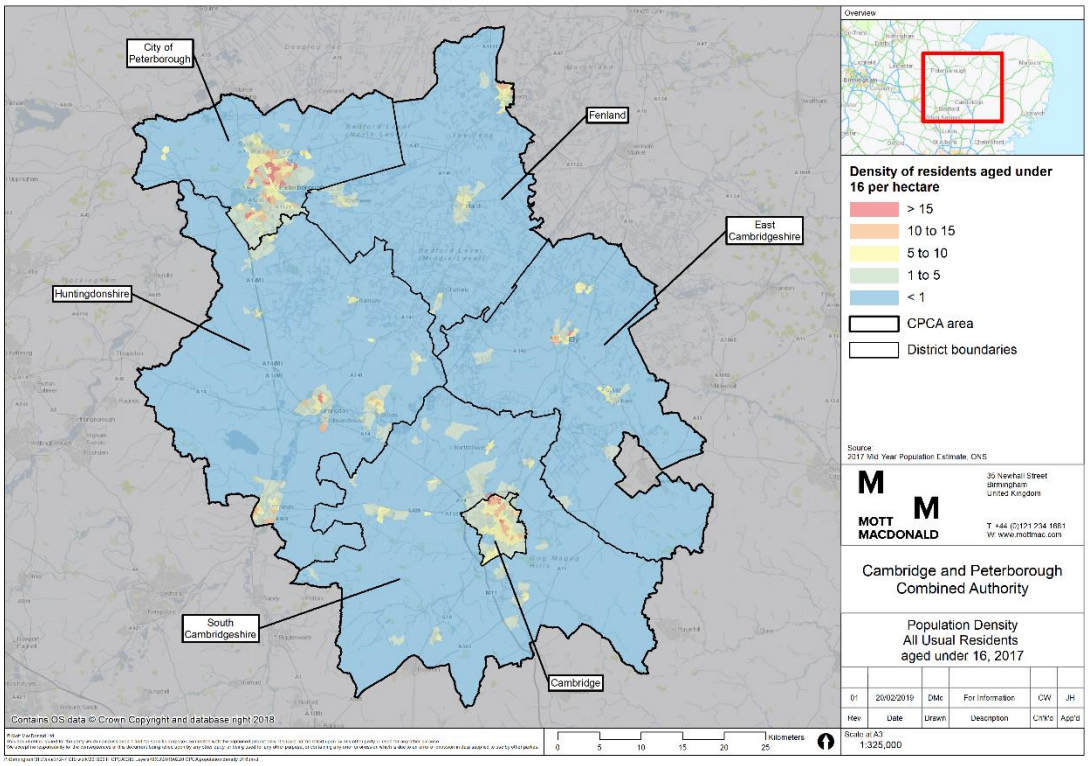
| Area | Total population (MYE 2017) | Population under 16 | Proportion of total population under 16 |
|---|---|---|---|
| Peterborough | 198,914 | 45,460 | 22.9% |
| Huntingdonshire | 176,979 | 32,640 | 18.4% |
| South Cambridgeshire | 156,705 | 31,504 | 20.1% |
| Cambridge | 124,919 | 20,703 | 16.6% |
| Fenland | 100,776 | 17,951 | 17.8% |
| East Cambridgeshire | 88,858 | 17,764 | 20.0% |
| **Combined Authority** | **847,151** | **166,022** | **19.6%** |
| **England** | **55,619,430** | **10,637,971** | **19.1%** |

Source: Office for National Statistics (2017): 'Mid-year population estimates for England and Wales, Scotland and Northern Ireland'

The map below shows the population densities for children under 16, where areas in blue are low density (<1 persons per hectare), areas in green and yellow are moderate density (1-10 persons per hectare), and areas in orange and red are high density (over 10 persons per hectare). It illustrates that:

- the urban areas of Peterborough, Cambridge, Huntingdon, Wisbech and Ely have high densities of people aged under 16; and
- the majority of people under 16 live in urban centres.

**Figure 4: Under 16 years old population density per hectare**




Source: Office for National Statistics (2017): 'Mid-year population estimates for England and Wales, Scotland and Northern Ireland'

### C.2.2 Younger people (aged 16-24 years old)

The table below indicates that the proportion of people living in the Combined Authority who are aged 16 to 24 (11%) is in line with the national figure (10.9%). The districts have proportions that range between 8.3% (South Cambridgeshire) and 22.4% (Cambridge).

**Table 43: Number and proportion of people aged 16 to 24 years old**

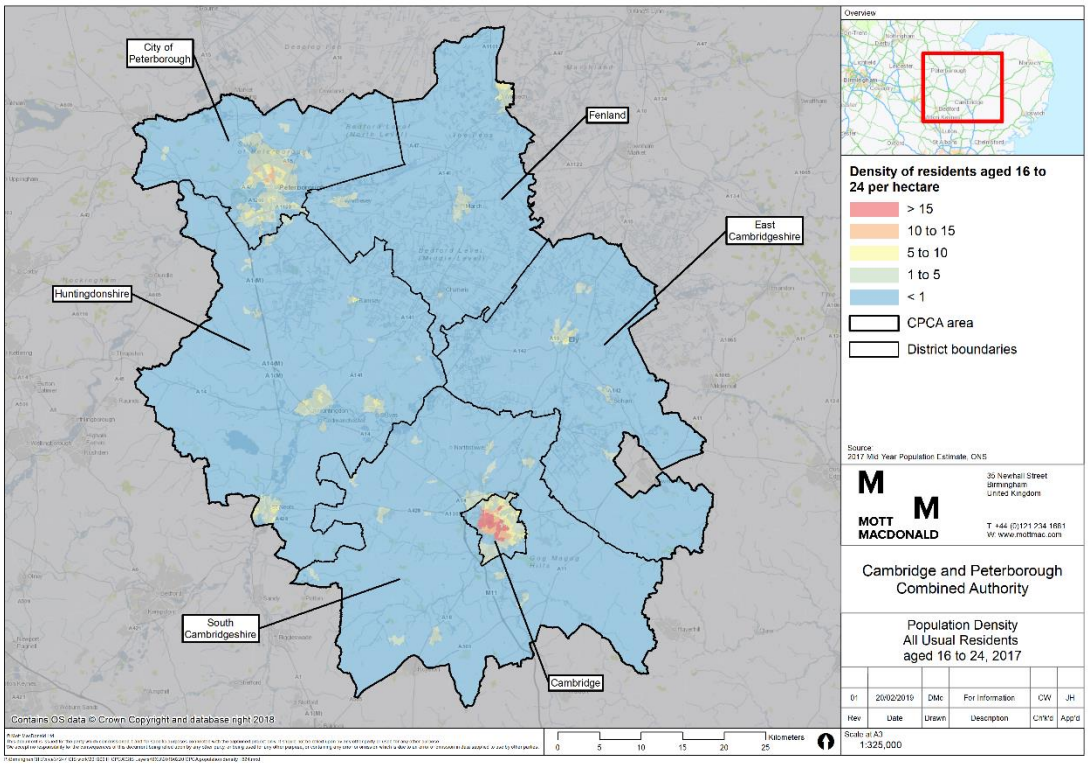
| Area | Total population (MYE 2017) | Population 16 - 24 | Proportion of total population 16 - 24 |
|---|---|---|---|
| Peterborough | 198,914 | 19,437 | 9.8% |
| Huntingdonshire | 176,979 | 15,620 | 8.8% |
| South Cambridgeshire | 156,705 | 13,062 | 8.3% |
| Cambridge | 124,919 | 27,959 | 22.4% |
| Fenland | 100,776 | 9,548 | 9.5% |
| East Cambridgeshire | 88,858 | 7,430 | 8.4% |
| **Combined Authority** | **847,151** | **93,056** | **11.0%** |
| **England** | **55,619,430** | **6,057,265** | **10.9%** |

Source: Office for National Statistics (2017): 'Mid-year population estimates for England and Wales, Scotland and Northern Ireland'

The map below illustrates that:

- the area with highest density of people aged 16 to 24 years old is in Cambridge, which has high density located around the town centre;
- Peterborough is an area of moderate density; and
- as the majority of the Combined Authority region is rural, there is a low density of younger people aged 16 to 24 overall.

**Figure 5: 16-24 years old population density per hectare**




Source: Office for National Statistics (2017): 'Mid-year population estimates for England and Wales, Scotland and Northern Ireland'

### C.2.3 Older people (65 years and over)

The table below indicates that the proportion of people living in the Combined Authority who are aged 65 and over (17.7%) is broadly in line with the national figure (18%). The districts have proportions that range between 12.7% (Cambridge) and 22.4% (Fenland).

**Table 44: Number and proportion of people 65 and over**

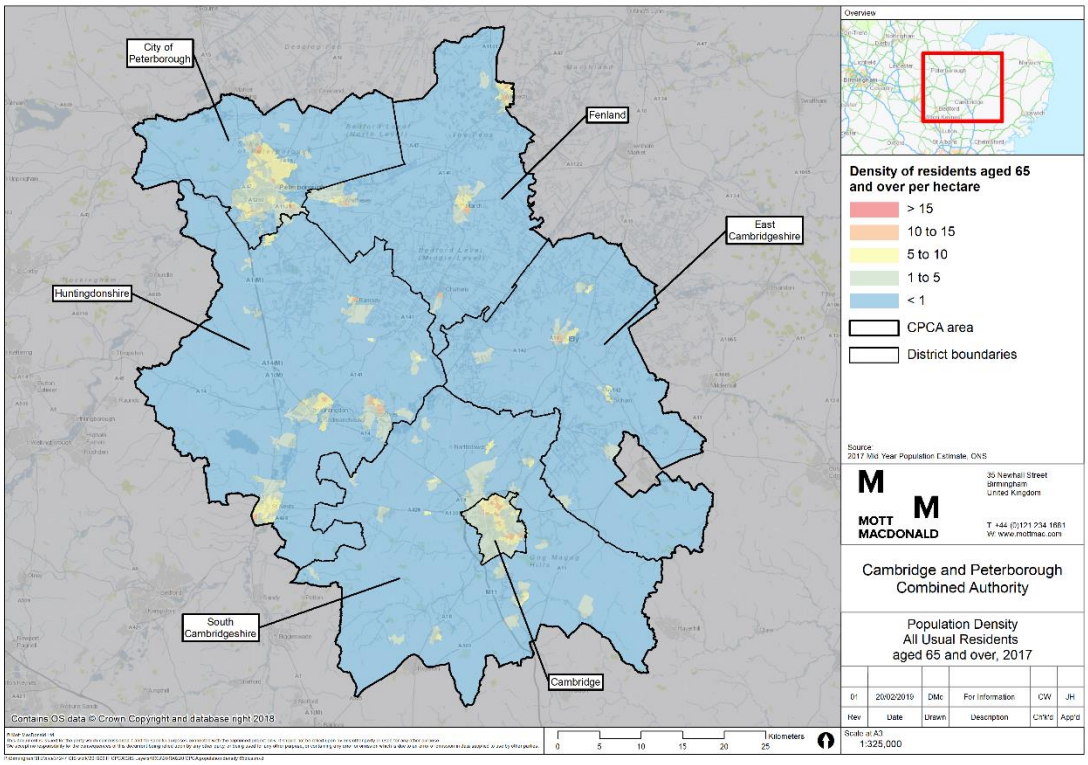
| Area | Total population (MYE 2017) | Population 65 and over | Proportion of total population 65 and over |
|---|---|---|---|
| Peterborough | 198,914 | 28,970 | 14.6% |
| Huntingdonshire | 176,979 | 34,620 | 19.6% |
| South Cambridgeshire | 156,705 | 30,090 | 19.2% |
| Cambridge | 124,919 | 15,880 | 12.7% |
| Fenland | 100,776 | 22,611 | 22.4% |
| East Cambridgeshire | 88,858 | 17,556 | 19.8% |
| **Combined Authority** | **847,151** | **149,727** | **17.7%** |
| **England** | **55,619,430** | **10,030,511** | **18.0%** |

Source: Office for National Statistics (2017): 'Mid-year population estimates for England and Wales, Scotland and Northern Ireland'

The map below illustrates that:

- the urban areas of Peterborough, Cambridge, Huntingdon, Wisbech, March, St Ives and Ely have high densities of people aged 65 and over; and
- the majority of people aged 65 and over live in urban centres.

**Figure 6: Over 65 population density per hectare**




Source: Office for National Statistics (2017): 'Mid-year population estimates for England and Wales, Scotland and Northern Ireland'

## C.3 Disability

The table below indicates that the proportion of people living in the Combined Authority with a limiting long-term illness (LLTI) (15.6%) is slightly lower than the national figure (17.6%). The districts have proportions that range between 13% (Cambridge) and 21% (Fenland).

**Table 45: Number and proportion of people with a LLTI**

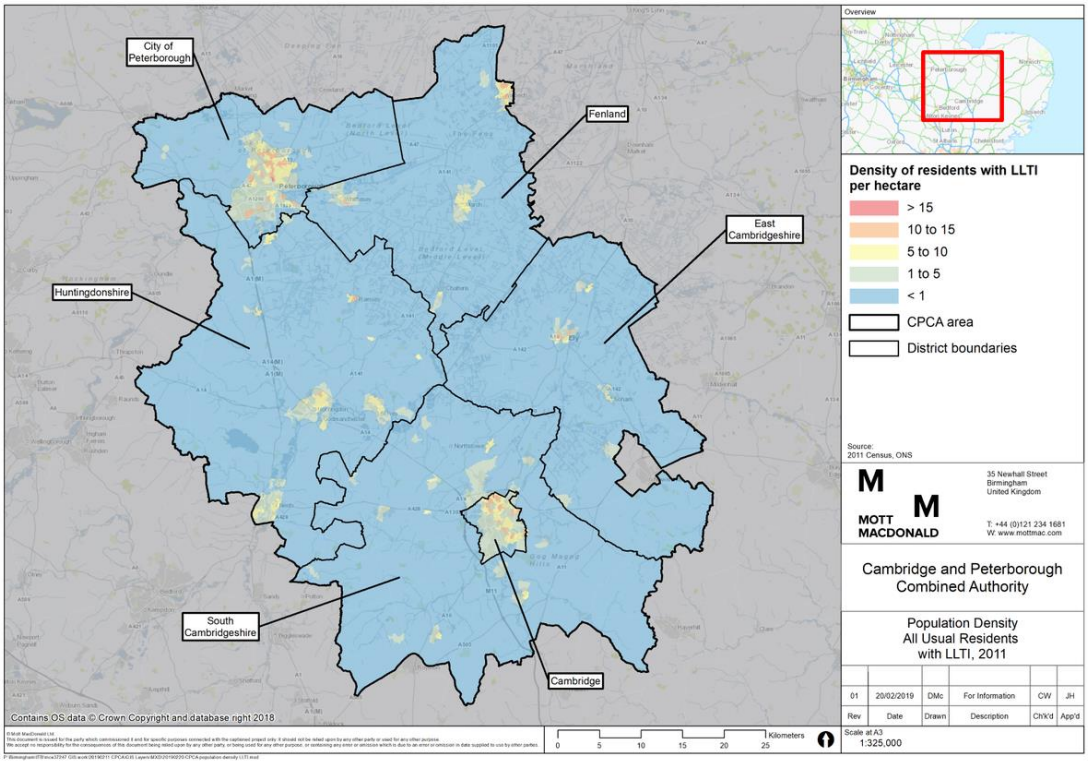
| Area | Total population (2011 Census) | Population with LLTI | Proportion of total population with LLTI |
|---|---|---|---|
| Peterborough | 183,631 | 30,591 | 16.7% |
| Huntingdonshire | 169,508 | 25,303 | 14.9% |
| South Cambridgeshire | 148,755 | 20,728 | 13.9% |
| Cambridge | 123,867 | 16,064 | 13.0% |
| Fenland | 95,262 | 20,030 | 21.0% |
| East Cambridgeshire | 83,818 | 12,902 | 15.4% |
| **Combined Authority** | **804,841** | **125,618** | **15.6%** |
| **England** | **53,012,456** | **9,352,586** | **17.6%** |

Source: Office for National Statistics (2011): 'Census, 2011'

The map below illustrates that:

- the areas with the highest density of people with a LLTI are in Cambridge and Peterborough, which have high densities located around the town centres; and
- the majority of people with a LLTI live around urban centres.

**Figure 7: Population with LLTI density per hectare**




Source: Office for National Statistics (2011): 'Census, 2011'

## C.4 Gender reassignment

There are no Census or other data for the number of gender variant people in the study area, London or England. The ONS, though, has estimated that the size of the Trans community in the UK could range from 65,000 to 300,000.[301]

## C.5 Marriage or civil partnership

The Equality Act (2010) states that you must not be discriminated against in employment because you are married or in a civil partnership. As the LTP does not cover employment, this protected characteristic group has not been considered in this assessment.

## C.6 Pregnancy and maternity

The table below indicates that the total fertility rate[302] in the Combined Authority (1.88) is largely in line with the national figure (1.76). All districts, with the exception of Cambridge, have a child bearing age population in line with the national average of 18%. This figure is 23% for Cambridge.

**Table 46: Number of live births and total fertility rates**

| Area | Total population (MYE 2017) | Population of child bearing age (16-44) | Proportion of total population of child bearing age (16-44) | Total fertility rate |
|---|---|---|---|---|
| Peterborough | 198,914 | 38,026 | 19% | 2.26 |
| Huntingdonshire | 176,979 | 29,760 | 17% | 1.79 |
| South Cambridgeshire | 156,705 | 26,051 | 17% | 1.79 |
| Cambridge | 124,919 | 29,182 | 23% | 1.55 |
| Fenland | 100,776 | 16,203 | 16% | 2.03 |
| East Cambridgeshire | 88,858 | 14,941 | 17% | 1.84 |
| **Combined Authority** | **847,151** | **154,163** | **18%** | **1.88** |
| **England** | **55,619,430** | **10,285,061** | **18%** | **1.76** |

Source: Office for National Statistics (2017): 'Mid-year population estimates for England and Wales, Scotland and Northern Ireland'

## C.7 Race and ethnicity

The table below indicates that the proportion of those from a BAME background living in the Combined Authority (18.6%) is slightly lower than the national figure (20.2%). The districts have proportions that range between 9.6% (Fenland), 29.1% (Peterborough) and 34% (Cambridge). These districts have a BAME population considerably higher than the national average due to high proportions of the White Other population; 11.6% in Peterborough and 16.5% in Cambridge. The proportion of White British population living in the Combined Authority (81.4%) is slightly higher than the national figure (79.8%). The districts have proportions that range between 66% (Cambridge), 89.5% (Huntingdonshire), 89.7% (East Cambridge) and 90.4% (Fenland).

[301] Office for National Statistics (2009): 'Trans Data Position Paper'.
[302] The total fertility rate is the average number of live children that a group of women who would bear a child if they experienced age-specific fertility rates of the calendar year throughout their childbearing lifespan.

**Table 47: Proportions of population by ethnicity**

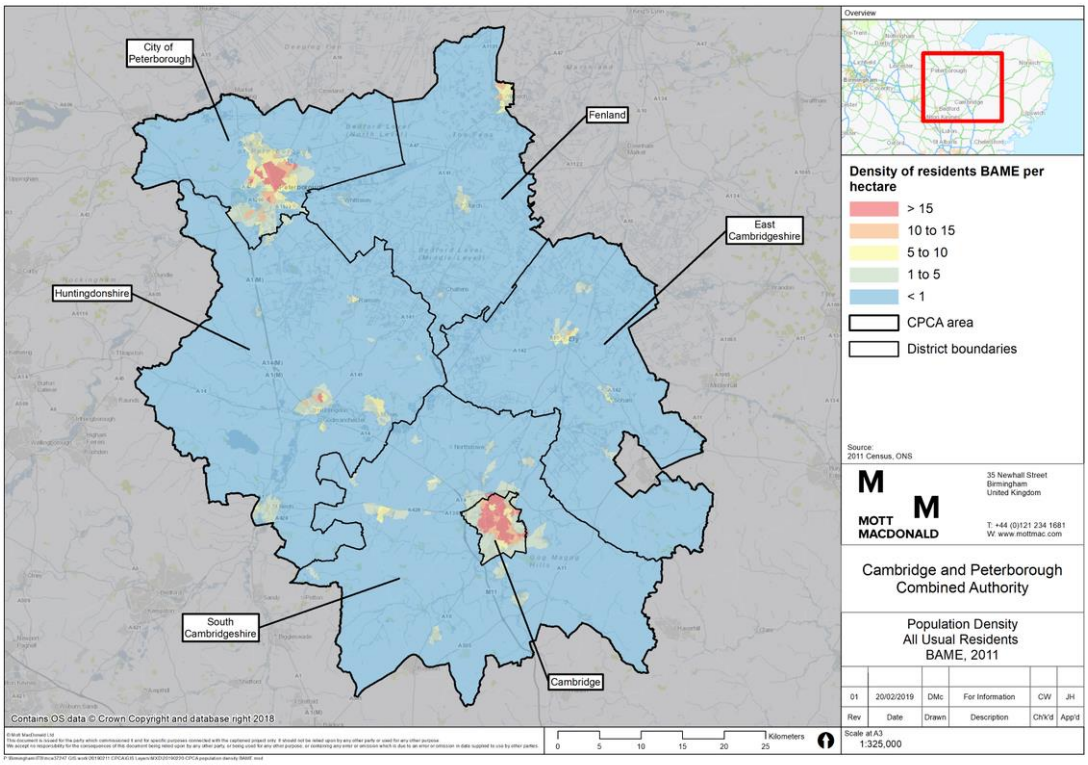
| Area | Total population (2011 Census) | BAME population | Proportion of total BAME population | Proportion of total Black population | Proportion of total Asian population | Proportion of total Mixed population | Proportion of total Other population | Proportion of total White Other population | Proportion of total White British population |
|---|---|---|---|---|---|---|---|---|---|
| Peterborough | 183,631 | 53,399 | 29.1% | 2.3% | 11.7% | 2.7% | 0.8% | 11.6% | 70.9% |
| Huntingdonshire | 169,508 | 17,814 | 10.5% | 1.0% | 2.5% | 1.5% | 0.3% | 5.3% | 89.5% |
| South Cambridgeshire | 148,755 | 18,943 | 12.7% | 0.9% | 3.7% | 1.7% | 0.4% | 6.0% | 87.3% |
| Cambridge | 123,867 | 42,125 | 34.0% | 1.7% | 11.0% | 3.2% | 1.6% | 16.5% | 66.0% |
| Fenland | 95,262 | 9,111 | 9.6% | 0.5% | 1.1% | 0.9% | 0.2% | 6.8% | 90.4% |
| East Cambridgeshire | 83,818 | 8,600 | 10.3% | 0.6% | 1.4% | 1.4% | 0.3% | 6.5% | 89.7% |
| **Combined Authority** | **804,841** | **149,992** | **18.6%** | **1.3%** | **5.9%** | **2.0%** | **0.6%** | **8.9%** | **81.4%** |
| **England** | **53,012,456** | **10,733,220** | **20.2%** | **3.5%** | **7.8%** | **2.3%** | **1.0%** | **5.7%** | **79.8%** |

Source: Office for National Statistics (2011): 'Census, 2011'

The map below illustrates that:

- the area with the highest density of BAME population is Cambridge. Peterborough also has a high BAME population density, particularly to the north of the town centre; and
- there is a moderate density of BAME population to the north of Huntington.

**Figure 8: BAME population density per hectare**




Source: Office for National Statistics (2011): 'Census, 2011'

## C.8 Religion or belief

The table below indicates that the proportion of those from a minority faith living in the Combined Authority (5.4%) which is considerably lower than the national figure (8.7%). The districts have proportions that range between 1.4% (Fenland) and 12% (Peterborough).

- The proportion of Christians is highest in Fenland (66.4%).
- The proportion of Muslims is highest in Peterborough (9.4%).
- The proportion of Hindus is highest in Cambridge (1.7%).
- The proportion of Buddhists is highest in Cambridge (1.3%).
- The proportion of Jews is highest in Cambridge (0.7%).
- The proportion of Sikhs is highest in Peterborough (0.6%).

The proportion of the population with no religion is highest in Cambridge (37.8%), which is higher than the national average (24.7%).

**Table 48: Proportion of population with minority faith, Christian faith and no religion**

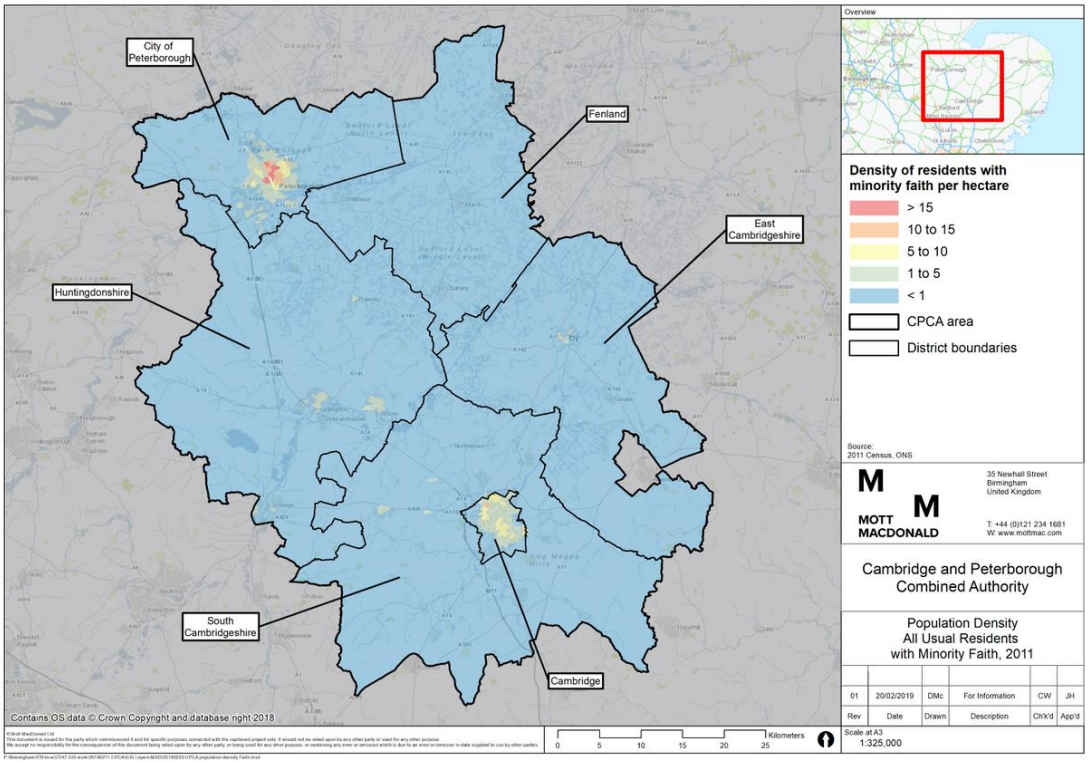
| Area | Total population (2011 census) | Proportion of total population with minority faith | Proportion of total population with Christian faith | Proportion of total population with no religion |
|---|---|---|---|---|
| Peterborough | 183,631 | 12% | 56.7% | 24.60% |
| Huntingdonshire | 169,508 | 2.40% | 60.8% | 29.50% |
| South Cambridgeshire | 148,755 | 3% | 58.8% | 30.10% |
| Cambridge | 123,867 | 8.30% | 44.8% | 37.80% |
| Fenland | 95,262 | 1.40% | 66.4% | 25% |
| East Cambridgeshire | 83,818 | 1.60% | 62.3% | 28.10% |
| **Combined Authority** | **804,841** | **5.40%** | **57.9%** | **29.10%** |
| **England** | **53,012,456** | **8.70%** | **59.4%** | **24.70%** |

Source: Office for National Statistics (2011): 'Census, 2011'

The map below illustrates that:

- the area with the highest density of the population with a minority faith is Peterborough; and
- Cambridge also has a high minority faith population density, particularly to the north of the town centre.

**Figure 9: Population density of population with minority faith per hectare**




Source: Office for National Statistics (2011): 'Census, 2011'

## C.9 Sex

The table below indicates that the proportion of males and females in the Combined Authority is in line with the national average (50% for both). The district with the highest proportion of females is East Cambridgeshire (50.7%) and the district with the highest proportion of males is Cambridge (51.8%).

**Table 49: Proportion of population**

| Area | Proportion of population that are Female | Proportion of population that are Male |
|---|---|---|
| Peterborough | 49.90% | 50.10% |
| Huntingdonshire | 50% | 50% |
| South Cambridgeshire | 50.60% | 49.40% |
| Cambridge | 48.20% | 51.80% |
| Fenland | 50.60% | 49.40% |
| East Cambridgeshire | 50.70% | 49.30% |
| **Combined Authority** | **50%** | **50%** |
| **England** | **50.60%** | **49.40%** |

Source: Office for National Statistics (2017): 'Mid-year population estimates for England and Wales, Scotland and Northern Ireland'

## C.10 Sexual orientation

There is no data available on this protected characteristic for the study area. However, emerging experimental statistics relating to sexual identity are available nationally and at a regional level.

In 2016, estimates from the Annual Population Survey (APS)[303] showed that 93% of the UK population identified as heterosexual or straight and 2% of the population identified themselves as lesbian, gay or bisexual (LGB). This comprised of:

- 1.2% identifying as gay or lesbian
- 0.8% identifying as bisexual
- A further 0.5% of the population identified themselves as "Other", which means that they did not consider themselves to fit into the heterosexual or straight, bisexual, gay or lesbian categories.
- A further 4.1% refused or did not know how to identify themselves

## C.11 Deprived communities

### C.11.1 Index of multiple deprivation

The table below shows that the Combined Authority as a whole, has a low proportion of the population that falls within the most deprived quintile (12%) compared to the national average (20.4%). Peterborough district has the highest proportion of the population that falls within the most deprived quintile at 37.2% compared to other districts. In terms of the least deprived quintile, Huntingdonshire (43%) and South Cambridgeshire (53.4%) both have a higher proportion of the population that fall within this quintile, when compared to the other districts and the national average.

[303] Source: Office for National Statistics (2017): 'Sexual identity, UK: 2016'

### Table 50: Proportion of population in multiple deprivation quintiles

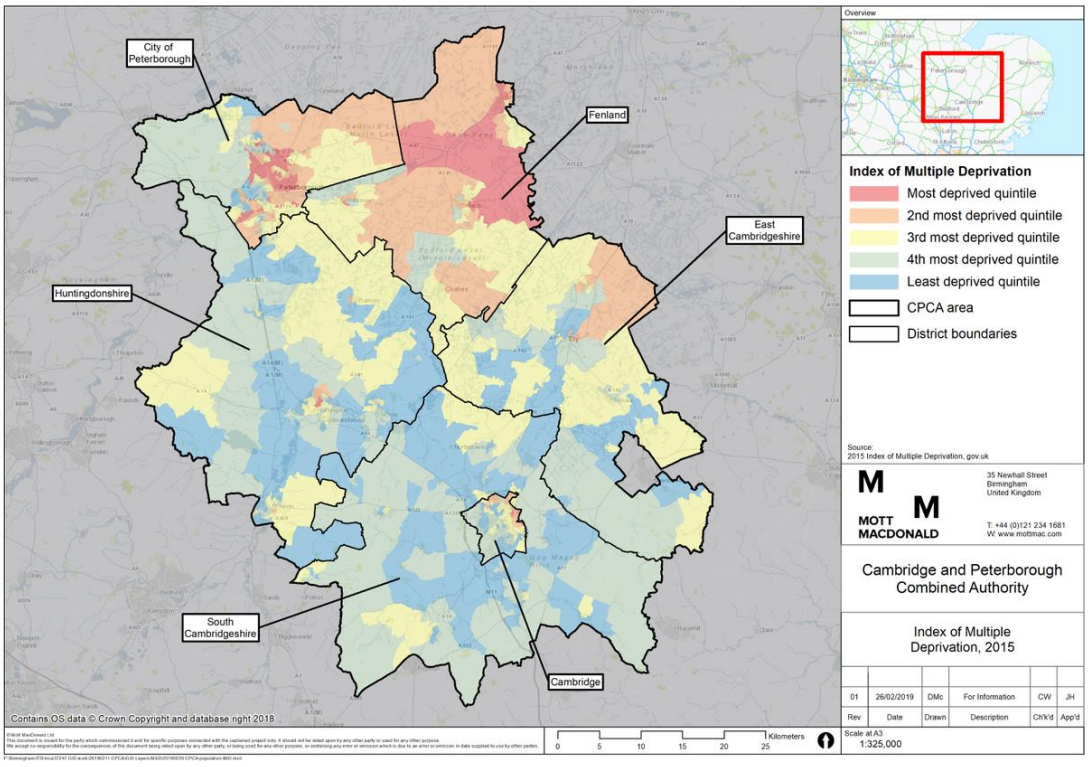
| Area | Total population | Proportion in most deprived quintile | Population in second most deprived quintile | Population in third most deprived quintile | Population in fourth most deprived quintile | Population in least deprived quintile |
|---|---|---|---|---|---|---|
| Peterborough | 198,914 | 37.2% | 23.9% | 17.4% | 14.6% | 6.9% |
| Huntingdonshire | 176,979 | 2.1% | 5.5% | 27.5% | 21.8% | 43.0% |
| South Cambridgeshire | 156,705 | 0.0% | 0.0% | 11.4% | 35.2% | 53.4% |
| Cambridge | 124,919 | 2.4% | 10.6% | 23.6% | 35.2% | 28.2% |
| Fenland | 100,776 | 21.1% | 37.2% | 29.7% | 11.9% | 0.0% |
| East Cambridgeshire | 88,858 | 0.0% | 8.1% | 30.9% | 24.4% | 36.6% |
| **Combined Authority** | **847,151** | **12.0%** | **13.6%** | **22.2%** | **23.6%** | **28.5%** |
| **England** | **55,619,430** | **20.4%** | **20.6%** | **20.1%** | **19.7%** | **19.3%** |

Source: IMD 2015 and mid-year population estimates 2017

The below map illustrates that:

- the areas with the highest deprivation are centred around Peterborough, Fenland and across the north of the Combined Authority with some small pockets in Cambridge and Huntingdon.

### Figure 10: Index of multiple deprivation




Source: IMD 2015 and mid-year population estimates 2017

### C.11.2 Health deprivation

The table below shows that the Combined Authority as a whole, has a low proportion of the population that falls within the most health deprived quintile (10.8%) compared to the national average (19.9%). As similar to above in the findings from the in Index of Multiple Deprivation, Peterborough district has the highest proportion of the population that falls within the most health deprived quintile at 35% compared to other districts. In terms of the least deprived health quintile, South Cambridgeshire (77.2%), Cambridge (53.5%) and Huntingdonshire (43.8%) all have a higher proportion of the population that fall within this quintile, when compared to the other districts and the national average.

**Table 51: Proportion of population in health deprivation quintiles**

| Area | Total population | Proportion in most health deprived quintile | Proportion in second most health deprived quintile | Proportion in third most health deprived quintile | Proportion in fourth most health deprived quintile | Proportion in least health deprived quintile |
|---|---|---|---|---|---|---|
| Peterborough | 198,914 | 35.0% | 29.1% | 21.4% | 14.5% | 0.0% |
| Huntingdonshire | 176,979 | 1.1% | 3.4% | 20.2% | 31.4% | 43.8% |
| South Cambridgeshire | 156,705 | 0.0% | 0.0% | 5.7% | 17.1% | 77.2% |
| Cambridge | 124,919 | 2.4% | 16.2% | 20.0% | 23.2% | 38.3% |
| Fenland | 100,776 | 16.8% | 54.7% | 22.1% | 6.4% | 0.0% |
| East Cambridgeshire | 88,858 | 0.0% | 0.0% | 6.3% | 40.2% | 53.5% |
| **Combined Authority** | **847,151** | **10.8%** | **16.4%** | **16.5%** | **21.5%** | **34.7%** |
| **England** | **55,619,430** | **19.9%** | **20.0%** | **19.9%** | **19.9%** | **20.2%** |

Source: IMD 2015 and mid-year population estimates 2017

### C.11.3 Income deprivation

The table below shows that the Combined Authority as a whole, has a low proportion of the population that falls within the most income deprived quintile (10.5%) compared to the national average (20.3%). As similar to above in the findings from the in Index of Multiple Deprivation, Peterborough district has the highest proportion of the population that falls within the most income deprived quintile at 36.4% compared to other districts. In terms of the least deprived income quintile, South Cambridgeshire (54.7%) and Cambridge (42%) both have a higher proportion of the population that fall within this quintile, when compared to the other districts and the national average.

**Table 52: Proportion of population in income deprivation quintiles**

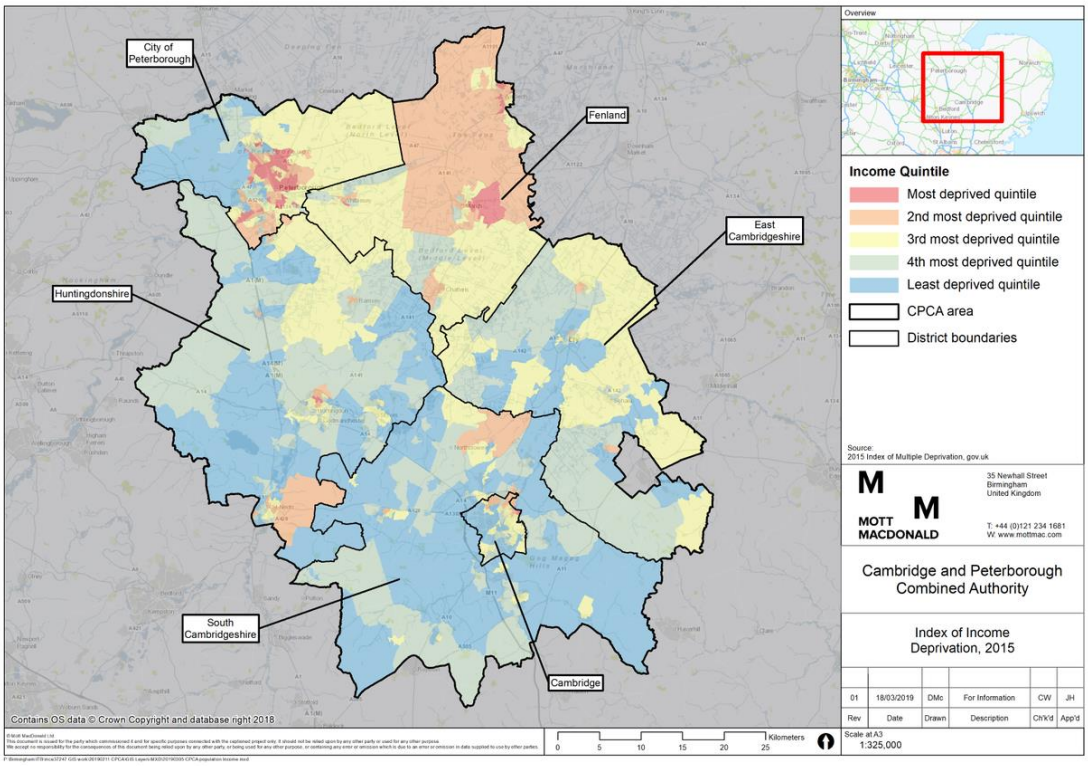
| Area | Total population | Proportion in most income deprived quintile | Proportion in second most income deprived quintile | Proportion in third most income deprived quintile | Proportion in fourth most income deprived quintile | Proportion in least income deprived quintile |
|---|---|---|---|---|---|---|
| Peterborough | 198,914 | 36.4% | 22.2% | 19.3% | 11.0% | 11.1% |
| Huntingdonshire | 176,979 | 1.8% | 15.3% | 18.3% | 32.7% | 32.0% |
| South Cambridgeshire | 156,705 | 0.0% | 2.9% | 15.2% | 27.2% | 54.7% |
| Cambridge | 124,919 | 1.2% | 12.8% | 28.4% | 15.1% | 42.4% |
| Fenland | 100,776 | 11.8% | 42.3% | 34.6% | 11.3% | 0.0% |
| East Cambridgeshire | 88,858 | 0.0% | 6.3% | 29.0% | 33.1% | 31.6% |
| **Combined Authority** | **847,151** | **10.5%** | **16.5%** | **22.5%** | **21.5%** | **29.0%** |
| **England** | **55,619,430** | **20.3%** | **20.4%** | **20.1%** | **19.7%** | **19.5%** |

Source: IMD 2015 and mid-year population estimates 2017

The below map illustrates that:

- the areas with the highest income deprivation are centred around Peterborough, Fenland and across the north of the Combined Authority with some small pockets in Cambridge, St Neots and Huntingdon.

**Figure 11: Index of income deprivation**




Source: IMD 2015 and mid-year population estimates 2017

### C.11.4 Children in low income families

The table below shows that the Combined Authority as a whole has a low proportion of children in low income families (15.6%) compared to the national average (20%). As similar to the findings from the Index of Multiple Deprivation and Income Deprivation described above, Peterborough district has the highest proportion of children in low income families at 23.1% compared to other districts. In terms of the lowest proportion of children in low income families, South Cambridgeshire (8.3%) and East Cambridgeshire (10%) both have a lower proportion of children in low income families, when compared to the other districts and the national average.

### Table 53: Proportion of children in low income families

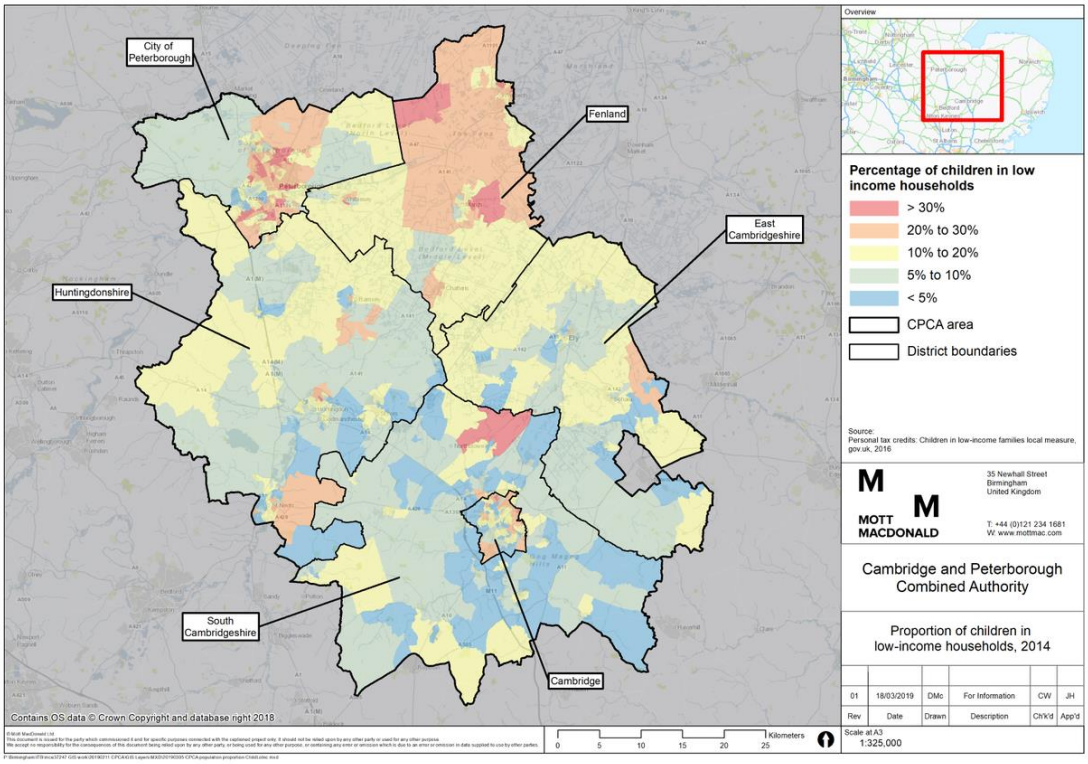
| Area | Total dependent children aged under 16 [304] | Total dependent children aged under 20 [305] | Percentage of under 16s in low income families [306] | Percentage of all children in low income families [307] |
|---|---|---|---|---|
| Peterborough | 44,910 | 51,600 | 23.1% | 23.1% |
| Huntingdonshire | 31,045 | 36,530 | 12.0% | 11.6% |
| South Cambridgeshire | 28,095 | 32,805 | 8.5% | 8.3% |
| Cambridge | 17,055 | 19,585 | 15.9% | 15.7% |
| Fenland | 17,595 | 20,765 | 21.3% | 20.5% |
| East Cambridgeshire | 15,560 | 17,950 | 10.1% | 10.0% |
| **Combined Authority** | **154,260** | **179,235** | **15.9%** | **15.6%** |
| **England** | **10,494,895** | **12,277,080** | **20.3%** | **20.0%** |

Source: 2014 Children in low income families local measure

The below map illustrates that:

- the areas with the highest number of children in low income households are centred around Peterborough, parts of Fenland and South Cambridgeshire.

### Figure 12: Proportion of children in low income households




Source: 2014 Children in low income families local measure

[304] Children counted as dependent children under the age of 20 for whom Child Benefit is received
[305] ibid
[306] Low income families defined as families in receipt of Child Tax Credits whose reported income is less than 60 per cent of the median income or in receipt of IS or (Income-Based) JSA
[307] ibid

## C.12 Household car availability

The table below shows that the Combined Authority as a whole, has a relatively low proportion of households with no access to vehicles (19.1%) compared to the national average (25.8%). Cambridge has the highest proportion of households with no access to vehicles at 33.6% compared to other districts. In terms of the lowest proportion of households with no access to vehicles South Cambridgeshire (11%) and East Cambridgeshire (13%) both have a lower proportion, when compared to the other districts and the national average.

**Table 54: Household car availability**

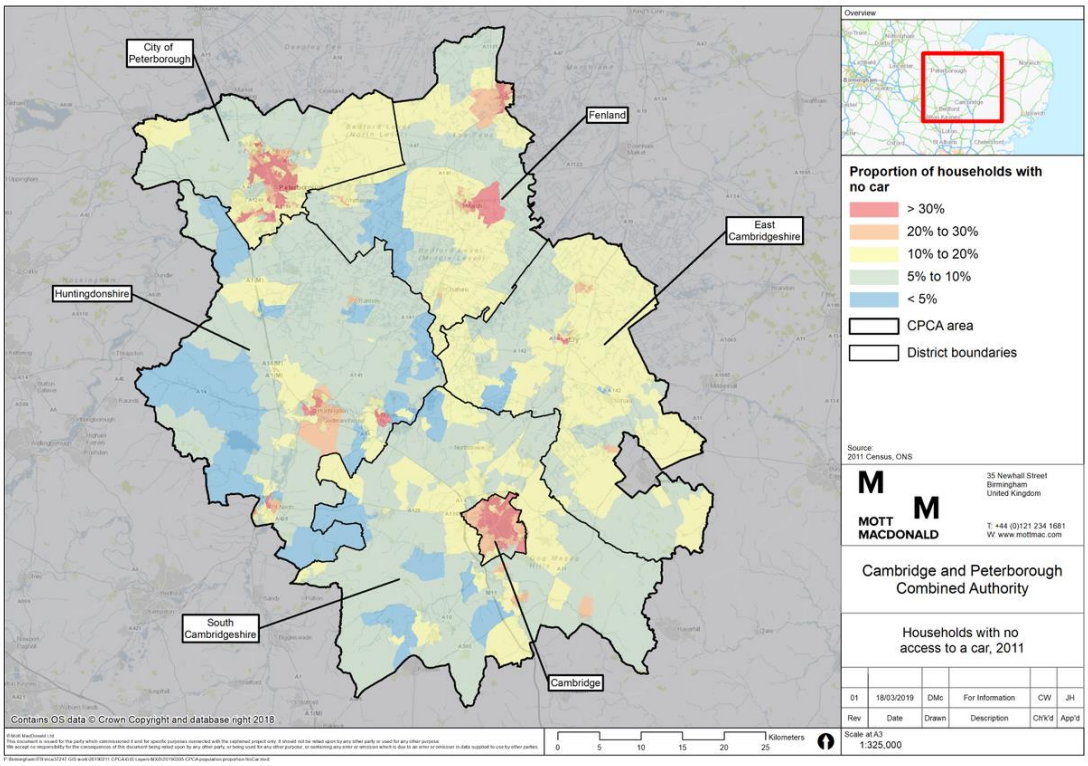
| Area | Total households | Households with no access to vehicles | Households with access to 1 or more vehicles |
|---|---|---|---|
| Peterborough | 74,023 | 24.9% | 75.1% |
| Huntingdonshire | 69,333 | 13.6% | 86.4% |
| South Cambridgeshire | 59,960 | 11.0% | 89.0% |
| Cambridge | 46,714 | 33.6% | 66.4% |
| Fenland | 40,620 | 18.1% | 81.9% |
| East Cambridgeshire | 34,614 | 13.0% | 87.0% |
| **Combined Authority** | **325,264** | **19.1%** | **80.9%** |
| **England** | **22,063,368** | **25.8%** | **74.2%** |

Source: Office for National Statistics (2011): 'Census, 2011'

The below map illustrates that:

- the areas with the lowest access to household cars is within urban areas such as Cambridge and Peterborough with other areas around Huntingdon and March.

**Figure 13: Proportion of households with no car**




Source: Office for National Statistics (2011): 'Census, 2011'

## C.13 Life expectancy at birth

The table below shows that the Combined Authority as a whole, has an average life expectancy for males of 80.4 years and females of 84.2 years compared to the national average of 79.2 years and 83 years respectively. South Cambridgeshire has the highest male and female life expectancy and Peterborough the lowest.

**Table 55: Life expectancy at birth**

| Area | Life expectancy at birth for male babies born between 2010 and 2012 | Life expectancy at birth for female babies born between 2010 and 2012 |
|---|---|---|
| Peterborough | 77.9 | 82.5 |
| Huntingdonshire | 80.9 | 84.4 |
| South Cambridgeshire | 82.8 | 85.9 |
| Cambridge | 79.9 | 84.5 |
| Fenland | 79.1 | 82.8 |
| East Cambridgeshire | 81.5 | 85.3 |
| **Combined Authority** | **80.4** | **84.2** |
| **England** | **79.2** | **83.0** |

Source: Life expectancy at birth and age 65 for local areas in England and Wales 2010-2012

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MOTT MACDONALD

# Cambridgeshire and Peterborough Combined Authority Local Transport Plan

## Strategic Environmental Assessment - Environmental Report

May 2019

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Cambridgeshire and Peterborough Combined Authority

# Cambridgeshire and Peterborough Combined Authority Local Transport Plan

## Strategic Environmental Assessment - Environmental Report

May 2019

# Issue and Revision Record

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| B | 16.05.19 | S Robinson | N Levy | J Hitchcock | Second Issue for Comment |
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# Contents

# Abbreviations

| | |
|---|---|
| **AONB** | Area of Outstanding Natural Beauty |
| **AQMA** | Air Quality Management Area |
| **BAME** | Black, Asian and Minority Ethnic |
| **BAP** | Biodiversity Action Plan |
| **CIA** | Community Impact Assessment |
| **$CO_2$** | Carbon Dioxide |
| **CPCA** | Cambridgeshire and Peterborough Combined Authority |
| **DEFRA** | Department for Environment, Food and Rural Affairs |
| **DfT** | Department for Transport |
| **DPD** | Development Plan Document |
| **EAP** | Environmental Action Programme |
| **EC** | European Commission |
| **EIA** | Environmental Impact Assessment |
| **EqIA** | Equality Impact Assessment |
| **EU** | European Union |
| **HIA** | Health Impact Assessment |
| **HRA** | Habitats Regulations Assessment |
| **LNR** | Local Nature Reserve |
| **LTP** | Local Transport Plan |
| **MAGIC** | Multi-Agency Geographic Information for the Countryside |
| **MWLP** | Minerals and Waste Local Plan |
| **NCA** | National Character Area |
| **NHS** | National Health Service |
| **$NH_3$** | Ammonia |
| **NNR** | National Nature Reserve |
| **$NO_2$** | Nitrogen Dioxide |
| **$NO_x$** | Nitrogen Oxides |
| **NWVOC** | Non-methane Volatile Organic Compound |
| **ONS** | Office for National Statistics |
| **$PM_{2.5}$** | Particulate Matter (2.5 micrometres in size) |
| **$PM_{10}$** | Particulate Matter (10 micrometres in size) |
| **PSED** | Public Sector Equality Duty |
| **RDP** | Rural Development Programme |
| **RIGS** | Regionally Important Geological Site |
| **RoWIP** | Rights of Way Improvement Plan |
| **SAC** | Special Area of Conservation |

| | |
|---|---|
| **SEA** | Strategic Environmental Assessment |
| **SFRA** | Strategic Flood Risk Assessment |
| **$SO_2$** | Sulphur Dioxide |
| **SPA** | Special Protection Area |
| **SSSI** | Site of Special Scientific Interest |
| **$tCO_2e$** | Tonnes Carbon Dioxide Equivalent |
| **UK** | United Kingdom |
| **UKCP18** | United Kingdom Climate Projections 2018 |
| **WCS** | Water Cycle Study |
| **WHO** | World Health Organisation |

# Glossary

| | |
|---|---|
| **Baseline** | A description of the present and future state of an area, in the absence of the Cambridgeshire and Peterborough Local Transport Plan, taking into account changes resulting from natural events and from other human activities |
| **Consultation Body** | An authority which because of its environmental responsibilities is likely to be concerned by the effects of implementing plans and programmes and must be consulted under the SEA Directive. The Consultation Bodies designated in the SEA Regulations are Natural England, Historic England (formerly English Heritage) and the Environment Agency |
| **Mitigation Measures** | Refers to measures to avoid, reduce or offset significant adverse effects |
| **Objective** | A statement of what is intended, specifying the desired direction of change in trends |
| **Scoping** | The process of deciding the scope and level of detail of a SEA, including the sustainability effects and options which need to be considered, the assessment methods to be used, and the structure and contents of the Environmental Report |
| **SEA Directive** | European Directive 2001/42/EC 'on the assessment of the effects of certain plans and programmes on the environment'. Transposed into UK law via The Environmental Assessment of Plans and Programmes Regulations 2004 |
| **Strategic Environmental Assessment** | Generic term used internationally to describe environmental assessment as applied to policies, plans and programmes. In this report, 'SEA' is used to refer to the type of environmental assessment required under the SEA Directive |
| **SEA Framework** | This is the objectives and criteria developed for the project |
| **SEA Objective** | These are specific objectives that have been developed for this project. They are also part of the SEA Framework, against which the project objectives and design will be tested for the purposes of the SEA |

# Non-Technical Summary

## Introduction

The Cambridgeshire and Peterborough Combined Authority (CPCA) has developed a Local Transport Plan (LTP) for the Cambridgeshire and Peterborough region. The LTP sets out the long-term approach to guide improvements to the transport system to 2050.

Under the European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (also known as the 'Strategic Environmental Assessment (SEA) Directive'), and the resulting Environmental Assessment of Plans and Programmes Regulations 2004, a SEA is required to ensure that the environmental effects of the LTP have been considered.

This report is the Environmental Report which presents the results of the SEA process for the Cambridgeshire and Peterborough LTP. The Environmental Report will be published for consultation, alongside the draft Cambridgeshire and Peterborough LTP. Following consultation, the Environmental Report will be updated to reflect consultation comments and any changes between the draft and final LTP.

As part of the suite of statutory documents required to support the development of the LTP a Habitats Regulations Assessment (HRA) and Community Impact Assessment (CIA) (including Health Impact Assessment (HIA) and Equalities Impact Assessment (EqIA)) have been produced. The HRA and CIA are presented in separate reports, but the results of these assessments have been used to inform the SEA.

## Cambridgeshire and Peterborough Local Transport Plan

The Transport Act 2000 (as amended by the Local Transport Act 2008) requires local transport authorities to produce a LTP. Under the Cambridgeshire and Peterborough Combined Authority Order, 2017, the CPCA is now the Local Transport Authority with strategic transport powers for the area previously covered by Cambridgeshire County Council and Peterborough City Council. As such, responsibility for the LTP in Cambridgeshire and Peterborough now rests with the CPCA.

The current LTP for the Cambridgeshire and Peterborough area is an amalgamation of the two LTPs previously prepared by Cambridgeshire County Council and Peterborough City Council. This was necessary to ensure that that the CPCA complied with its statutory duty to produce a LTP following the formation of the CPCA. As a result, the current LTP does not fully reflect the aspirations of the CPCA as set out by the Mayor and in the wider CPCA 2030 Strategy. Therefore, this new LTP has been developed. The LTP covers the geographical areas of Cambridgeshire and Peterborough, including the following Local Authorities:

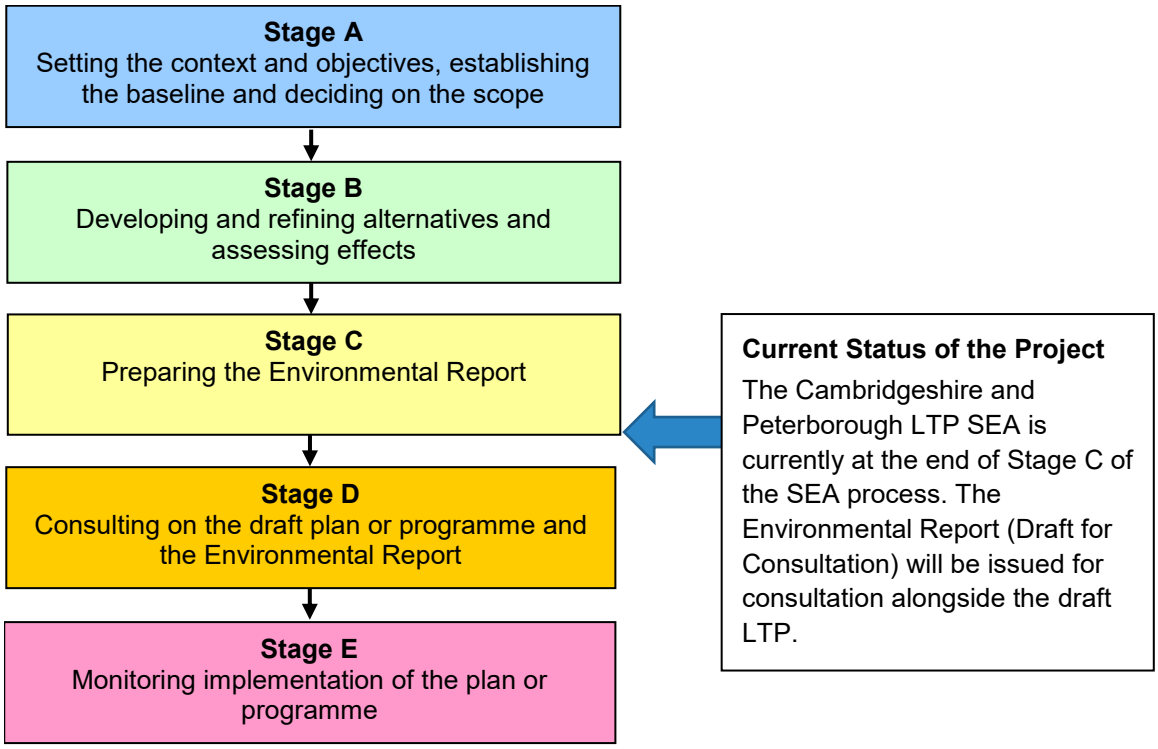
- Cambridge City Council
- Cambridgeshire County Council
- East Cambridgeshire District Council
- Fenland District Council
- Huntingdonshire District Council
- Peterborough City Council
- South Cambridgeshire District Council

The vision developed for the LTP is to '*Deliver a world-class transport network for Cambridgeshire and Peterborough that supports sustainable growth and opportunity for all*'. Three goals and ten objectives sit underneath the vision, and a range of policies have been developed to deliver these.

## SEA Methodology

The figure below shows the different stages of the SEA process. The SEA for the Cambridgeshire and Peterborough LTP is currently at the end of Stage C of the SEA process.

**SEA Process and Stages**




## Scoping Stage Summary

The SEA Scoping Report was issued for formal consultation in February 2019 to the three Consultation Bodies (Environment Agency, Natural England, and Historic England) and the Local Authorities. Comments received were taken into consideration in the preparation of this Environmental Report.

A key stage in the scoping process was the development of the SEA Framework which includes SEA objectives, assessment criteria and indicators. The SEA objectives and assessment criteria were used in Stage B (the assessment stage) to appraise the LTP strategic alternatives, and the LTP policies and projects to determine their predicted environmental effects. The SEA objectives were developed based on the SEA topics, baseline information, key issues in the Cambridgeshire and Peterborough area, and the objectives in the SEA for the previous Cambridgeshire and Peterborough LTPs.

The SEA objectives for the Cambridgeshire and Peterborough LTP are:

| Cambridgeshire and Peterborough LTP SEA Objectives |
|---|
| Improve the health of the population and reduce health inequalities between areas and groups |
| Improve the health and safety of the transport network, reducing the number of accidents and other incidents |
| Improve accessibility to key services, employment and recreational areas for all areas of the community |
| Support and contribute to local economic growth and competitiveness by delivering reliable and efficient transport networks |
| Reduce road traffic and congestion through reducing the need to travel by car and improve and promote sustainable modes of transport including public transport, cycling and walking |
| Protect and enhance biodiversity (including both habitat and species) and geodiversity at all levels |
| Maintain, protect and enhance the historic environment, including archaeology, and the historic landscape character |
| Maintain, protect and enhance the diversity and distinctiveness of the landscape and townscape character |
| Protect and conserve the quality of soils, minimising the loss of agricultural/greenfield land, and seek to remediate contaminated land |
| Protect and enhance the quality of the water environment |
| Reduce the risk of flooding to transport infrastructure and minimise its contribution to flood risk |
| Protect and improve local air quality, particularly in the AQMAs |
| Minimise GHG emissions and reduce Cambridgeshire and Peterborough's contribution to climate change |
| Reduce vulnerability to climate change by minimising the risk of flooding and effects from other climate hazards |
| Maximising the use and lifespan of existing transport infrastructure |

## Assessment Results and Conclusions

The SEA undertaken for the Cambridgeshire and Peterborough LTP has helped to identify the likely effects of the LTP policies and projects. The LTP strategy focuses on a range of significant capital investments in highway, public transport and walking and cycling infrastructure, designed to support a significant increase in travel demand (expected to be generated by significant new development) but tailored to the local geographic and travel context. Overall the LTP is likely to have significant positive social effects from increased accessibility (both affordability and connectivity), increased choice and reliability of sustainable transport modes, economic growth, and health benefits. The LTP promotes sustainable transport modes including low and zero emission vehicles which will help reduce transport-related emissions providing benefits for air quality, GHG reduction and health.

The LTP promotes new road and rail transport infrastructure which has the potential for positive or negative effects depending on the location of the projects and mitigation measures incorporated into the design. Negative effects could include habitat loss and fragmentation, death, injury or disturbance to species, visual impacts, damage to heritage assets and archaeology, effect on setting of heritage assets, landtake including loss of agricultural land, and water pollution. There is also opportunity to provide positive effects through design and co-ordination with partners and other organisations, including habitat creation and enhancement, incorporation of green infrastructure, increased access to the natural and historic environment (although increased pressure on these assets would need to be managed), increased accessibility and connectivity, and facilitating economic growth. The LTP also contains policies that aim to reduce negative effects associated with transport infrastructure and protect and enhance the natural and built environment including requiring a Construction Environmental Management Plan (CEMP) and considering environmental protection and enhancement within project design. The SEA process has also resulted in mitigation and enhancement measures being identified for the LTP to strengthen environmental outcomes.

## Monitoring the implementation of the LTP

Monitoring the negative effects of implementing the LTP is an essential ongoing element of the SEA process. Monitoring helps ensure that the identified SEA objectives are being achieved, allows early identification of unforeseen adverse effects and thus appropriate remedial action can be taken.

Negative effects identified during the SEA process were centred around future infrastructure development and the potential for effects on ecology, historic environment, water quality, landscape, and soils. Monitoring proposals were developed for the LTP to monitor these predicted effects.

# 1 Introduction

## 1.1 Introduction

Local authorities are required under The Transport Act 2000 (as amended by the Transport Act 2008) to produce a Local Transport Plan (LTP). The Cambridgeshire and Peterborough Devolution Deal gives the Cambridgeshire and Peterborough area greater local control over transport, skills, business support and other areas. In light of the Devolution Deal, the Cambridgeshire and Peterborough Combined Authority (CPCA) is responsible for developing a statutory Local Transport Plan (LTP) for the region.

A number of statutory documents are required to support development of the LTP as outlined in Annex A of the DfT guidance[1]. These include environmental and social assessments including:

- Strategic Environment Assessment (SEA)
- Habitats Regulations Assessment (HRA)
- Community Impact Assessment (CIA) (including Health Impact Assessment (HIA) and Equalities Impact Assessment (EqIA))

Under the European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (also known as the 'Strategic Environmental Assessment (SEA) Directive'), and the resulting Environmental Assessment of Plans and Programmes Regulations 2004, a SEA is required to ensure that the environmental effects of the LTP are considered. This Environmental Report presents the results of the SEA process for the Cambridgeshire and Peterborough LTP.

The HRA and CIA are presented in separate reports, but the results of these assessments have been used to inform the SEA.

## 1.2 The SEA Process

The SEA Directive and Regulations require an assessment of the effects of certain plans and programmes on the environment. Article 3 (2b) states that SEA is required for plans and programmes which are prepared for transport, set the framework for development consents, and/or are likely to have a significant environmental effect.

The SEA works to inform the decision-making process through the identification and assessment of significant and cumulative effects a plan or programme may have on the environment. The SEA process is conducted at a strategic level and enables consultation on the potential effects of a plan with a wide range of stakeholders. Figure 1 shows the different stages in the SEA process. Table 1 presents the different tasks involved in each of the SEA stages. The SEA for the Cambridgeshire and Peterborough LTP is currently at the end of the Stage C of the SEA process.

The Cambridgeshire and Peterborough LTP SEA was carried out in accordance with the following guidance:

- Department for Transport (DfT) (2009) Guidance on Local Transport Plans;

[1] Department for Transport (2009) Guidance on Local Transport Plans. Available at: http://webarchive.nationalarchives.gov.uk/20110505104156/http://www.dft.gov.uk/adobepdf/165237/ltp-guidance.pdf

- Office of Deputy Prime Minister (ODPM) (now the Department for Communities and Local Government (DCLG)) (September 2005) A Practical Guide to the Strategic Environmental Assessment Directive;
- Environment Agency (August 2011) Strategic Environmental Assessment and Climate Change: Guidance for Practitioners; and
- Historic England (December 2016) Sustainability Appraisal and Strategic Environmental Assessment – Historic England Advice Note 8.

**Figure 1: SEA Process Stages**

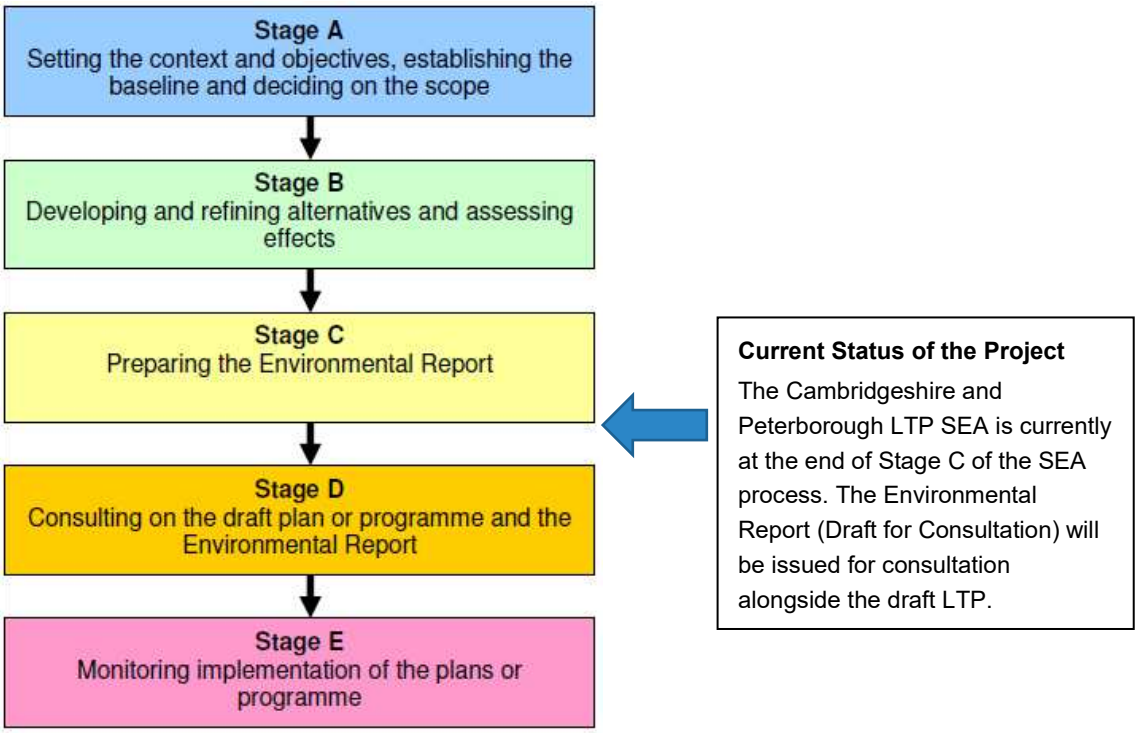



**Table 1: SEA Stages and Tasks**

| SEA Stage | SEA Task | Task Purpose |
|---|---|---|
| Stage A<br>Setting the context and objectives, establishing the baseline and deciding on the scope | A1: Identifying other relevant plans, programmes, and environmental protection objectives | To establish how the plan or programme is affected by outside factors, to suggest ideas for how any constraints can be addressed, and to help to identify SEA objectives |
| | A2: Collecting baseline information | To provide an evidence base for environmental problems, prediction of effects, and monitoring; to help in the development of SEA objectives |
| | A3: Identifying environmental problems | To help focus the SEA and streamline the subsequent stages, including baseline information analysis, setting of the SEA objectives, prediction of effects and monitoring |
| | A4: Developing SEA objectives | To provide a means by which the environmental performance of the plan or programme and alternatives can be assessed |
| | A5: Consulting on the scope of SEA | To ensure that the SEA covers the likely significant environmental effects of the plan or programme |
| Stage B<br>Developing and refining alternatives and assessing effects | B1: Testing the plan or programme objectives against the SEA objectives | To identify potential synergies or inconsistencies between the objectives of the plan or programme and the SEA objectives and help in developing alternatives |
| | B2: Developing strategic alternatives | To develop and refine strategic alternatives |

| SEA Stage | SEA Task | Task Purpose |
|---|---|---|
| | B3: Predicting the effects of the draft plan or programme, including alternatives | To predict the significant environmental effects of the plan or programme and alternatives |
| | B4: Evaluating the effects of the draft plan or programme, including alternatives | To evaluate the predicted effects of the plan or programme and its alternatives and assist in the refinement of the plan or programme |
| | B5: Considering ways of mitigating adverse effects | To ensure that adverse effects are identified, and potential mitigation measures are considered |
| | B6: Proposing measures to monitor the environmental effects of plan or programme implementation | To detail the means by which the environmental performance for the plan or programme can be assessed |
| Stage C<br>Preparing the Environmental Report | C1: Preparing the Environmental Report | To present the predicted environmental effects of the plan or programme, including alternatives, in a form suitable for public consultation and use by decision-makers |
| Stage D<br>Consulting on the draft plan or programme and the Environmental Report | D1: Consulting on the draft plan or programme and Environmental Report | To give the public and the Consultation Bodies an opportunity to express their opinions on the findings of the Environmental Report and to use it as a reference point in commenting on the plan or programme.<br>To gather more information through the opinions and concerns of the public |
| | D2: Assessing significant changes | To ensure that the environmental implications of any significant changes to the draft plan or programme at this stage are assessed and taken into account |
| | D3: Decision making and providing information | To provide information on how the Environmental Report and consultees' opinions were taken into account in deciding the final form of the plan or programme to be adopted |
| Stage E<br>Monitoring implementation of the plans or programme | E1: Developing aims and methods for monitoring | To track the environmental effects of the plan or programme to show whether they are as predicted; to help identify adverse effects |
| | E2: Responding to adverse effects | To prepare for appropriate responses where adverse effects are identified |

Source: Adapted from 'A Practical Guide to the Strategic Environmental Assessment Directive' (DCLG, September 2005)

## 1.3 The Purpose and Structure of the Environmental Report

The purpose of this Environmental Report is to present the results of the SEA process for the Cambridgeshire and Peterborough LTP including the potential effects (positive and negative) of the LTP policies and projects, mitigation and enhancement measures, and monitoring proposals.

The Environmental Report will be published for consultation, alongside the draft Cambridgeshire and Peterborough LTP. Following consultation, the Environmental Report will be updated to reflect consultation comments and any changes between the draft and final LTP.

The key tasks undertaken, and the structure of the Environmental Report are presented below:

- Chapter 1 – Introduction to the Cambridgeshire and Peterborough LTP and SEA process and requirements
- Chapter 2 – Description and context of the Cambridgeshire and Peterborough LTP
- Chapter 3 – Consultation process
- Chapter 4 – Summary of the Scoping Stage tasks (from the Scoping Report), including the plans and programmes review, baseline, key issues and opportunities, and SEA Framework
- Chapter 5 – LTP Strategic Alternatives Assessment
- Chapter 6 – Description and assessment of the LTP, and assessment of cumulative effects

- Chapter 7 – Proposals for mitigation and monitoring of effects of the LTP
- Appendix A – LTP Policies and Projects
- Appendix B – Policy, Plans and Programmes Review
- Appendix C – Scoping Report Consultation log
- Appendix D – Baseline Review
- Appendix E – Baseline Maps
- Appendix F – Baseline Indicators
- Appendix G – LTP Policy Assessments
- Appendix H – LTP Project Assessments
- Appendix I – Other projects planning search

## 1.4 Compliance with the SEA Directive

This Environmental Report has been prepared in accordance with the requirements of the SEA Directive. Table 2 indicates where the specific requirements in the SEA Directive relating to the Environmental Report (SEA Directive Annex I) can be found within this report.

**Table 2: SEA Directive Requirements Signposting Table**

| SEA Directive Environmental Report Requirements | Section of Environmental Report where Requirement is found |
|---|---|
| An outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes | Chapter 2, Section 4.2, Section 6.4, Appendix B |
| The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme | Section 4.4, Appendix D, Appendix E, Appendix F |
| The environmental characteristics of areas likely to be significantly affected | Section 4.4, Appendix D, Appendix E, Appendix F |
| Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC | Section 4.4, Appendix D |
| The environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation | Section 4.2 – 4.3, Appendix B |
| The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, historic environment[2], landscape and the interrelationship between the above factors | Chapter 5, Chapter 6, Appendix G, Appendix H |
| The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme | Chapter 7 |
| An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information | Chapter 5 |
| A description of the measures envisaged concerning monitoring in accordance with Article 10 | Chapter 7 |
| A non-technical summary of the information provided under the above headings | Non-technical summary at start of report |

Source: SEA Directive Annex I

[2] Historic environment covers the SEA Directive topic cultural heritage including architectural and archaeological heritage

## 1.5 Limitations of the Environmental Report

In order to produce this Environmental Report, Mott MacDonald has relied on published data and information provided by CPCA and from third party organisations. The baseline information collected in this Report is the most up-to-date information currently available; however, it is possible that conditions described in this report may change over time. This dataset has been reviewed and updated as appropriate throughout the SEA process, as new information becomes available.

# 2 Description and Context of the Cambridgeshire and Peterborough LTP

## 2.1 Background to Cambridgeshire and Peterborough LTP

The Transport Act 2000 (as amended by the Local Transport Act 2008) requires local transport authorities to produce a LTP. Under the Cambridgeshire and Peterborough Combined Authority Order, 2017, the CPCA is now the Local Transport Authority with strategic transport powers for the area previously covered by Cambridgeshire County Council and Peterborough City Council. As such, responsibility for the LTP in Cambridgeshire and Peterborough now rests with the CPCA.

Efficient, low carbon and reliable transport is a vital factor in building sustainable local communities. It contributes to the achievement of stronger, safer and healthier communities, equality and social inclusion, environmental objectives and more successful local economies. The LTP is a vital framework in helping the CPCA work with stakeholders to strengthen its place-shaping role and its delivery of services to the community.

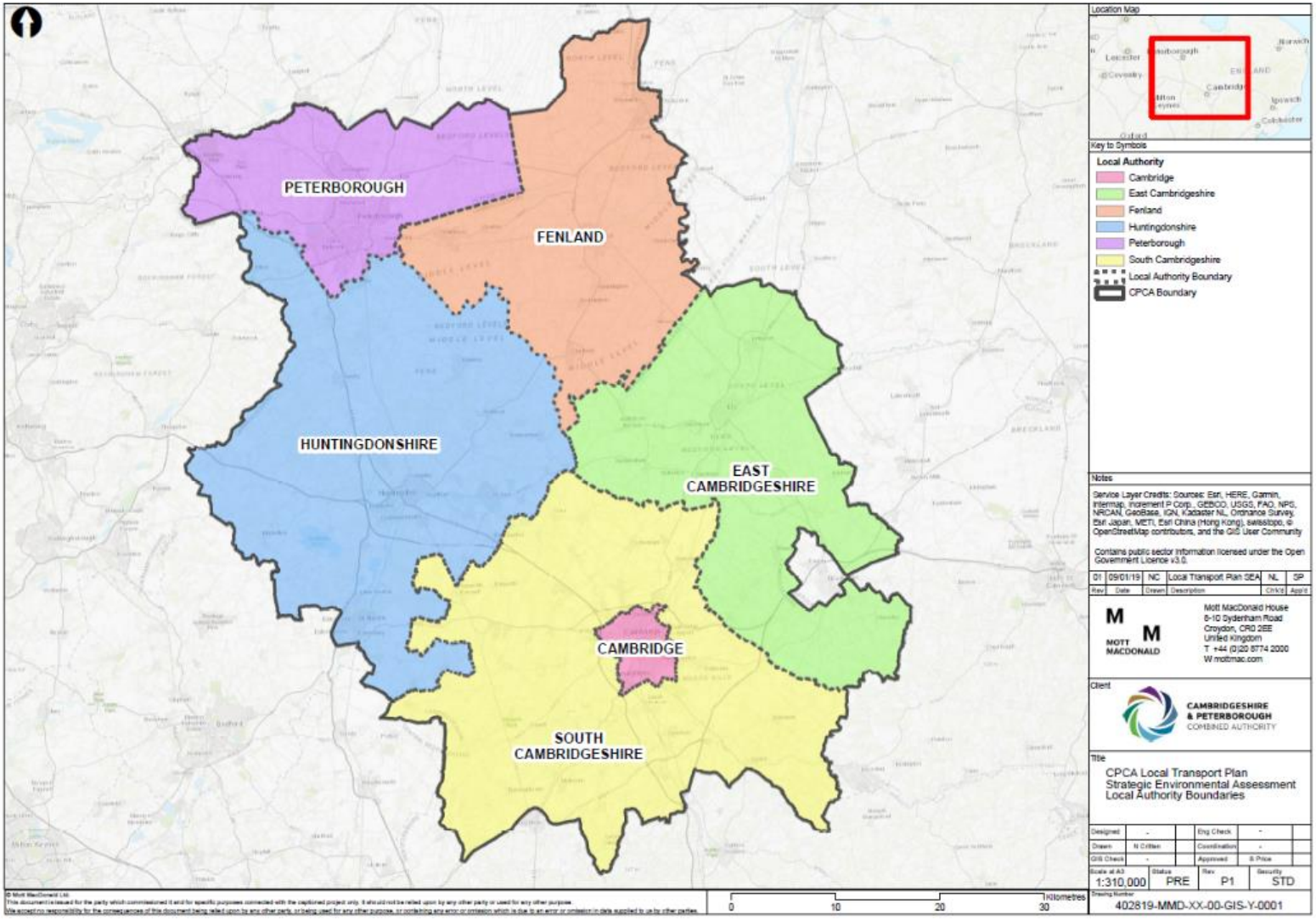
The current LTP for the Cambridgeshire and Peterborough area is an amalgamation of the two LTPs previously prepared by Cambridgeshire County Council and Peterborough City Council. This was necessary to ensure that that the CPCA complied with its statutory duty to produce a LTP following the formation of the CPCA. As a result, the current LTP does not fully reflect the aspirations of the CPCA as set out by the Mayor and in the wider CPCA 2030 Strategy. Therefore, this new LTP has been developed.

## 2.2 Cambridgeshire and Peterborough LTP Context

The LTP covers the geographical areas of Cambridgeshire and Peterborough (see Figure 2), including the following Local Authorities:

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

**Figure 2: Cambrigeshire and Peterborough LTP Area**




Source: Mott MacDonald (2018)

## 2.3 LTP Vision, Goals and Objectives

A vision statement, goals and objectives have been developed for the new Cambridgeshire and Peterborough LTP and are presented in Figure 3.

**Figure 3: LTP Vision, Goals and Objectives**

| **Vision**<br>Deliver a world-class transport network for Cambridgeshire and Peterborough that supports sustainable growth and opportunity for all | | |
|---|---|---|
| **Goals** | | |
| **Economy**<br>Deliver economic growth and opportunity for all our communities. | **Society**<br>Provide an accessible transport system to ensure everyone can thrive and be healthy | **Environment**<br>Protect and enhance our environment and tackle climate change together. |
| **Objectives** | | |
| • Support new housing and development to accommodate a growing population and workforce, and address housing affordability issues.<br>• Connect all new and existing communities sustainably so all residents can easily access a good job, spreading the region's prosperity.<br>• Ensure all of our region's businesses and tourist attractions are connected sustainably to our main transport hubs, ports and airports.<br>• Build a resilient and adaptive network that is less susceptible to human and environmental disruption, improving journey time reliability. | • Embed a safe systems approach into all planning and transport operations to achieve Vision Zero – zero fatalities or serious injuries.<br>• Promote social inclusion through the provision of a sustainable transport network that is affordable and accessible for all.<br>• Provide 'healthy streets' and high-quality public realm that puts people first and promotes active lifestyles.<br>• Ensure transport initiatives improve air quality across the region to exceed good practice standards. | • Deliver a transport network that protects and enhances our natural, historic and built environments.<br>• Reduce emissions to as close to zero as possible to minimise the impact of transport and travel on climate change. |

### 2.3.1 Policy Development

The key transport policy and strategy documents from the Cambridgeshire and Peterborough Combined Authority, Cambridgeshire County Council, Peterborough City Council and Greater Cambridge Partnership were reviewed by the project team to develop a long list of policies. The reviewed documents were:

- Peterborough Local Transport Plan 4
- Cambridgeshire Local Transport Plan 3
- The Mayor's Interim Transport Strategy

- Cambridgeshire and Peterborough Strategic Spatial Framework
- Cambridgeshire and Peterborough Combined Authority 2030 Ambition
- Cambridgeshire and Peterborough Independent Economic Review
- Greater Cambridge Partnership Transport Aims 4.

Through this review a long list of over 140 policies was identified, along with which of the new LTP objectives they met.

Following development of the long list, a round of consolidation was undertaken to remove repetitions and to ensure that policies covered a broad range of relevant themes. This resulted in lists of policy themes for each objective which were brought together into one master list of policy themes. A second round of consolidation was then carried out by grouping together policy themes to generate an initial shortlist of policy areas. The initial shortlist was cross-tabulated with the objectives to show alignments (some policy areas cross cut all objectives) and to reveal gaps. At this point, a number of additional policy areas were considered for inclusion. The proposed LTP policies were assessed as part of the SEA process and the results are presented in Section 6.

### 2.3.2 Project Development

The schemes that have been included in the draft Local Transport Plan have been identified and selected from a number of sources: the priority schemes and studies of the Combined Authority, previous Local Transport Plans for Cambridgeshire and Peterborough, the Greater Cambridge Partnership's work, and Local Plans; and have been reviewed with key officer stakeholders at a local, regional and national level.

The schemes have been through relevant due diligence processes. For example, the Combined Authority's priority transport schemes are being developed in line with the Combined Authority's Assurance Framework and the schemes contained within existing Local Plans have been through Examination in Public. In addition, an assessment framework, developed for the Local Transport Plan, has been deployed.

In line with good practice, the assessment framework includes consideration of schemes against their potential contribution towards the strategic objectives for the Local Transport Plan, as well as consideration of their value for money, affordability, environmental impacts (including air quality) and engineering deliverability.

It is a balanced and integrated package of schemes that has been brought forward for inclusion in the plan that addresses key issues and opportunities, across multiple objective priorities, as well as having full spatial coverage of the Combined Authority region.

Notwithstanding the high-level scheme assessment and sifting undertaken to inform this Local Transport Plan, all individual schemes will be subject to further scrutiny as plans for their delivery are progressed. These include further value for money testing (through the business case development process) and environmental assessment (including air quality assessments).

The short-listed projects were assessed as part of the SEA process and the results are presented in Section 6.

# 3 Consultation

## 3.1 The Consultation Process

Consultation is an integral part of the SEA process. The SEA Regulations require that consultation is carried out early in the plan development process with the relevant consultation bodies, regarding the '*scope and level of information to be included within the Environmental Report*'. In England the statutory consultation bodies are:

- Natural England
- The Environment Agency
- Historic England

There are two main phases of consultation associated with the SEA process. These are:

- Consulting on the scope of the SEA
- Consultation on the Environmental Report alongside the draft Plan

## 3.2 Scoping Consultation

The SEA Scoping Report was issued in February 2019 for a five-week statutory consultation period to the three Consultation Bodies and the Local Authorities. The responses received and how these have been addressed are presented in full in Appendix C.

Key themes arising from the Scoping Report consultation included:

- More consideration of biodiversity net gain
- Stronger link and use of data from the Transport and Health Joint Strategic Needs Assessment (JSNA)
- Widening of health baseline including mental health
- Rationalisation of indicators
- Including flood risk as a topic in its own right

## 3.3 Environmental Report Consultation

The SEA Directive and Regulations do not define a set timeframe for consultation on an Environmental Report. The SEA Directive states that Consultation Bodies and the public '*shall be given an early and effective opportunity within appropriate timeframes to express their opinion on the draft plan or programme and the accompanying environmental report before the adoption of the plan or programme or its submission to the legislative procedure'*.

The SEA Environmental Report will be published for consultation alongside the Cambridgeshire and Peterborough LTP. A consultation log of responses will be produced. All responses received will be reviewed and addressed in the final Environmental Report.

## 3.4 Post-Adoption

A SEA Post-Adoption Statement will be prepared following adoption of the final LTP, in accordance with the requirements of the SEA Regulations. The SEA Adoption Statement describes:

- How environmental considerations have been integrated into the final LTP

- How the Environmental Report has been taken into account
- How the opinions expressed in the consultation on the Environmental Report have been taken into account
- The reasons for choosing the final LTP as adopted, in the light of the other alternatives considered
- The measures that are to be taken to monitor the significant environmental effects of the implementation of the final LTP

The SEA Post-Adoption Statement will be published alongside the final LTP.

# 4 Stage A Scoping Summary

## 4.1 Introduction

The scoping stage of the SEA process sets the context and scope of the SEA and Environmental Report. This chapter provides a summary of the scoping results as presented in the SEA Scoping Report (Mott MacDonald, February 2019) and updated following scoping consultation. It covers the tasks under SEA Stage A including:

- Policies, plans and programmes review
- Baseline information including future trends
- Key sustainability issues and opportunities
- SEA Framework
- Compatibility of the SEA objectives
- Compatibility of the LTP objectives and the SEA objectives

## 4.2 Relationship with other Policies, Plans and Programmes

A review of the relevant policies, plans and programmes was undertaken as part of the previous SEA for the Cambridgeshire (Atkins, 2014) and Peterborough (Royal HaskoningDHV, 2015) LTPs. The policies, plans and programmes review for the new Cambridgeshire and Peterborough LTP draws on these reviews where relevant. The aim of the review was to determine the relationship between the Cambridgeshire and Peterborough LTP and other existing international and European, national and regional, and local policies, plan and programmes. The LTP must aim to support current relevant policies, plans, programmes, and environmental protection legislation at international, national and local levels whilst also supporting, and where possible, strengthening the objectives of these plans and strategies within the Cambridgeshire and Peterborough area.

As part of the scoping process for the SEA of the Cambridgeshire and Peterborough LTP, the policies, plans and programmes identified in the previous LTP SEAs have been reviewed to determine whether they have been updated or superseded by more up to date versions. Figure 4 presents a list of the policies, plans and programmes considered in the review. Those identified with an asterisk (*) are where there have been updates. The updated policies, plans and programmes have been reviewed and are presented in Appendix B.

## 4.3 Identification of Key Themes and Messages

The main themes, messages and objectives from the review of policies, plans and programmes that are considered relevant to the Cambridgeshire and Peterborough LTP are presented below. These are as follows:

- Conserve flora and fauna and their habitats
- Conservation and wise use of wetlands and their resources
- Protection of wild birds and their habitats
- Promote and achieve biodiversity net gain

- The creation and long-term provision of green infrastructure[3]
- Protection of landscape character and quality
- Improve water quality so all waters achieve 'good status' as set out in the Water Framework Directive
- Prevent or limit inputs of pollutants into groundwater
- Reduce and manage the risks of flooding
- Reduce greenhouse gas emissions and improve air quality
- Adapt to the impacts of climate change
- Increase resource efficiency and reduce natural resource use and waste
- Promote sustainable and active modes of transport, accessible for all
- Improve the health and safety of transport
- Create a green economy and promote sustainable growth
- Promote sustainable and healthy communities[4]
- Promote social inclusion and community participation
- Protect historic environment assets including archaeology and built heritage
- Protect best quality soils and agricultural land
- Improve health and wellbeing of communities and reduce health inequalities

The themes, messages and objectives identified from the review of policies, plans, and programmes will provide an input into the process of reviewing and updating the key issues and opportunities and the SEA Framework.

[3] The European Commission defines green infrastructure as a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services such as water purification, air quality, space for recreation and climate mitigation and adaptation. This network of green (land) and blue (water) spaces can improve environmental conditions and therefore citizens' health and quality of life. It also supports a green economy, creates job opportunities, and enhances biodiversity. The Natura 2000 network constitutes the backbone of the EU green infrastructure. (Source: http://ec.europa.eu/environment/nature/ecosystems/index_en.htm)

[4] The UK Government definition of sustainable communities as outlined in the document 'Sustainable Communities: Homes for All' (ODPM, January 2005, page 74) is: "Sustainable communities are places where people want to live and work, now and in the future. They meet the diverse needs of existing and future residents, are sensitive to their environment, and contribute to a high quality of life. They are safe and inclusive, well planned, built and run, and offer equality of opportunity and good services for all".

## Figure 4: Relevant Policies, Plans, Programmes

### International and European

- EU 7th Environmental Action Programme (EAP)*
- EU Sustainable Development Strategy (2006)
- EU Rural Development Policy 2014-2020*
- EU Liability Directive (2004/35/EC)
- EU Thematic Strategy on Air Quality (2005)
- National Emissions Ceilings Directive (2016/2284/EU)*
- EU Biodiversity Strategy to 2020: Our life insurance, our natural capital (2011)
- Berne Convention on the Conservation of European Wildlife and Natural Habitats (1979)
- Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979)
- UK Post-2010 Biodiversity Framework (2012)
- EU Directive for the Promotion of Bio-fuels for Transport (2003/30/EC)
- Johannesburg Declaration on Sustainable Development (2002)
- EC Strategy on Climate Change: Control Measures Through Until 2020 and Beyond (2007)
- EC Green Paper on Adaptation to Climate Change in Europe (2007)
- EU Climate Adaptation Strategy (2012)*
- UN Framework Convention on Climate Change (2008)
- EC European Landscape Convention (2000)
- EC Groundwater Directive (2006/118/EC)
- Waste Framework Directive (2008/98/EC)*
- The European Convention on the Protection of Archaeological Heritage
- UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (1972)
- Health Effects of Transport-Related Air Pollution (WHO, 2005)
- Transport, Environment and Health (WHO, 2000)
- Collaboration Between the Health and Transport Sectors in Promoting Physical Activity (WHO, 2006)
- EC Directive on Conservation of Natural Habitats and of Wild Flora and Fauna (92/43/EEC)
- EC Noise Directive (2002/49/EC)
- EC Conservation of Wild Birds Directive (2009/147/EC)
- EC Ambient Air Quality Directive (2008/50/EC)*
- EC Directive on the Assessment of the Effects of Certain Public and Private Projects on the Environment (2014/52/EU)*
- Convention on Biological Diversity, Rio de Janeiro (1992)
- EC Water Framework Directive (2000/60/EC)
- Kyoto Protocol to the UN Framework Convention on Climate Change
- European Transport Policy for 2010: A Time to Decide (EC, 2001)
- Keep Europe moving – Sustainable mobility for our continent (EC, 2008)
- Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system (EC, 2011)*
- A European Strategy for Low-Emission Mobility (EC, 2016)*
- Freight Logistics - The Key to Sustainable Mobility (EU, 2006)
- The Urban Waste Water Directive (91/271/EC)
- Directives in relation to Road Vehicles (98/70/EC and 2005/55/EC)
- Ramsar Convention (1971)
- Environmental Noise Guidelines for the European Region (WHO, 2018)*
- Floods Directive (2007/60/EC)*
- Urban Green Spaces and Health (WHO, 2016)*
- Health Co-benefits of Climate Change Mitigation – Transport Sector (WHO, 2011)*

### National

- Climate Change Act 2008
- Traffic Management Act 2004
- Local Transport Act 2008
- Road Safety Act 2006
- The Environmental Noise (England) (as amended) Regulations 2006
- Water for Life, DEFRA (2008)
- Biodiversity 2020: A strategy for England's wildlife and ecosystem services, DEFRA (2011)
- The Natural Choice: Securing the Value of Nature, DEFRA (2011)
- The Invasive Non-native Species Framework Strategy, DEFRA (2008)
- Towards a Sustainable Transport System Supporting Economic Growth in a Low Carbon World (2007)

- Air Quality (England) Regulations 2000 (as amended) and Air Quality (Standards) Regulations 2010
- The Conservation of Habitats and Species Regulations 2017
- Natural Environment and Rural Communities Act 2006
- The Countryside and Rights of Way (CROW) Act 2000
- The Wildlife and Countryside Act 1981 (as amended)
- Planning (Listed Buildings and Conservation Areas) Act 1990
- The Ancient Monuments and Archaeological Areas Act 1979
- National Heritage Act 1980 (as amended)
- Flood Risk Regulations 2009
- National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2018)*
- National Planning Practice Guidance (2018)*
- The Strategic Road Network and the Delivery of Sustainable Development (Circular 02/2013)
- National Air Quality Strategy (2007)
- Draft Clear Air Strategy (DEFRA, 2018)*
- A Green Future: Our 25 Year Plan to Improve the Environment (2018)*
- The Clean Growth Strategy (2017)*
- Industrial Strategy (2017)*
- The UK Post-2010 Biodiversity Framework (2012)*
- Securing the Future – Delivering the UK Sustainable Development Strategy (2005)
- Guidance on Local Transport Plans, DfT (2009)
- Department for Transport (DfT) Single Departmental Plan (2018)*
- The Road to Zero, DfT (2018)*
- UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations, DfT (2017)*
- Connecting people: a strategic vision for rail, DfT (2017)*
- National Adaptation Programme (NAP) 2018 to 2020 (2018)*
- Waste Management Plan for England, DEFRA (2013)*
- Protection of Badgers Act 1992
- Climate Change Impacts and Adaptation, Environment Agency (2018)*
- Surface Water Management: An Action Plan, DEFRA (2018)*
- Future Water: Water Strategy for England (2008)
- The Heritage Statement (2017)*
- Clean Neighbourhoods and Environment Act 2005
- Working Together to Build a Safer Road System: British Road Safety Statement, DfT (2015)*
- Road Safety Statement: Progress Report, DfT (2018)*
- The Inclusive Transport Strategy: Achieving equal access for disabled people, DfT (2018)*
- Cycling and Walking Strategy, DfT (2017)*
- Building Sustainable Transport into New Developments (DfT, 2008)
- Road Traffic Reduction Act 1997
- Road Traffic Reduction (National Targets) Act 1998
- Noise Action Plans (DEFRA)
- Healthy Lives, Healthy People: Our Strategy for Public Health in England (2010)*
- Automated and Electric Vehicles Act 2018*
- Natural Capital Committee's Sixth Report (2019)*
- Health Impacts of All Pollution, Chief Medical Officer (2017)*
- Green Space Access, Green Space Use, Physical Activity and Overweight, Natural England (2011)*
- Health matters: getting every adult active every day, Public Health England (2016)*
- Health matters: air pollution, Public Health England (2018)*

**Regional and Local**

- River Nene Catchment Flood Management Plan (CFMP), Environment Agency (2009)
- River Welland CFMP, Environment Agency (2009)
- Great Ouse CFMP, Environment Agency (2011)
- Anglian River Basin Management Plan (RBMP), Environment Agency (2015)
- Cambridgeshire and Peterborough Habitat Action Plans (as updated 2009)
- Investing in the East of England's natural assets, state value and vision (2009)
- Woodland for Life - Regional Woodland Strategy for the East of England (2003)
- Peterborough's Sustainable Community Strategy 2008-21
- Peterborough's Green Grid Strategy (2007)
- Cambridgeshire Rights of Way Improvement Plan Update (2016)*
- Air Quality Action Plan (AQAP) and Air Quality Progress Reports for the Cambridgeshire Growth Areas (Cambridge City Council, South Cambridgeshire, East Cambridgeshire, Huntingdonshire and Fenland)
- Cambridgeshire Landscape Guidelines (1991)
- East Cambridgeshire Local Plan (2015)
- Huntingdonshire Core Strategy (2009)
- Fenland Local Plan (2014)
- Cambridge City Council Local Plan (2018)*

- Peterborough Biodiversity Strategy (2018)*
- Peterborough Tree and Woodland Strategy (2018)*
- Cambridgeshire and Peterborough Minerals and Waste Development Plan Document (DPD) (2011)
- Preliminary Draft Cambridgeshire and Peterborough Minerals and Waste Local Plan (2018)*
- Peterborough Local Transport Plan 2011-2016 (2011)
- Peterborough Local Development Framework
- Peterborough Level 1 Strategy Flood Risk Assessment (SFRA) and Outline Water Cycle Study (WCS) (2018)*
- Peterborough City Council's Conservation Area Appraisals and Management Plans (as amended)
- The Nene Valley Nature Improvement Area (NIA) Project
- The Welland Valley Partnership River Improvement Plan (2013)
- Cambridgeshire County Council Climate Change and Environment Strategy (2008)
- Cambridgeshire's Vision 2007–2021 (2007)*
- Cambridgeshire Local Area Agreement (LAA) 2008-2011 (2008)
- Cambridgeshire Green Infrastructure Strategy (2011)
- South Cambridgeshire Local Plan (2018)*
- South Cambridgeshire DC – Biodiversity Supplementary Planning Guidance (2009)
- Cambridgeshire Local Term Transport Strategy 2011-2031 (2015)*
- Cambridge City Council Natural Conservation Strategy (2006)
- Local Agenda 21 (LA21)
- Cambridgeshire Health & Wellbeing Strategy 2012-2017 (2012)*
- Sustainable Futures: Integrated Sustainability Framework for the East of England, 2009
- Health system prevention strategy for Cambridgeshire and Peterborough (2016)*
- Transport Strategy for Cambridge and South Cambridgeshire (2014)
- Transport Strategy for East Cambridgeshire (2016)
- Cambridgeshire and Peterborough Independent Economic Review (CPIER) (2018)*
- Peterborough Health and Wellbeing Strategy 2016-2019 (2016)*
- Access to Transport, Joint Strategic Needs Assessment (JSNA) (2015)*
- Active Transport, JSNA (2015)*
- Air Pollution, JSNA (2015)*
- Cambridgeshire and Peterborough JSNA Core Dataset (2019)*
- Transport and Health JNSA Dataset – Peterborough, Peterborough City Council (not dated)*

## 4.4 Baseline Scoping Summary

A review of the current environment and socio-economic baseline information for the Cambridgeshire and Peterborough LTP was undertaken as part of the scoping process. The baseline was collected from published sources, including but not limited to:

- Office for National Statistics (ONS)
- Local Authority Health Profiles (Public Health England, 2018)
- Department for Transport
- Multi-Agency Geographic Information for the Countryside (MAGIC) Interactive Mapping
- Cambridgeshire and Peterborough Biodiversity Group
- CPCA LTP Evidence Base Report (Steer, 2018)
- State of the UK Climate 2017 (Met Office, 2018)
- UKCP18
- Historic England
- Natural England
- DEFRA
- Environment Agency

The baseline information forms an evidence base against which environmental issues or opportunities resulting from the Cambridgeshire and Peterborough LTP can be predicted and assessed. The complete baseline information is presented in Appendix D. Maps showing spatial baseline information is presented in Appendix E and specific baseline indicators[5] in Appendix F under the following SEA topics:

- Population and Human Health
- Biodiversity, flora and fauna
- Historic Environment
- Landscape
- Soils
- Water
- Air
- Climatic Factors
- Material Assets

A summary of the baseline in Appendix D – F for each of the SEA Directive topics is presented below:

- Population and Human Health – The population of Cambridgeshire and Peterborough is estimated to be 850,000[6]. Of the total population, 37% live in urban areas, 43% in market towns and 20% in rural settlements and villages[7]. The population is expected to increase to over 1 million by 2036 due to the planned housing growth, primarily in Cambridgeshire[8]. Ethnicity across the Cambridgeshire and Peterborough area is predominately White. Ten

[5] A range of indicators have been developed as part of the SEA Framework drawing on the indicators used in the previous LTPs to allow comparison of trends

[6] Steer, CPCA LTP Evidence Report (2018)

[7] ONS, Census 2011

[8] Forecast population at 2036 is 1,044,030 - Cambridgeshire County Council Research Group's 2015-based population forecasts

percent of the total population is Black, Asian and Minority Ethnic (BAME)[9]. However, Cambridge and Peterborough have diverse communities with a higher percentage of the population from BAME groups in comparison with the national average. With regard to health, particular areas of concern in Cambridgeshire include self-harm and dementia diagnosis rates, where rate of emergency hospital stays related to self-harm and the dementia diagnosis is statistically significantly worse than in England. There are numerous areas of concern within Peterborough, including child poverty, homelessness, smoking attributed mortality and physical activity.

- Biodiversity, Flora and Fauna – The Cambridgeshire and Peterborough region contains 103 Sites of Special Scientific Interest (SSSI), five Ramsar sites, ten Special Areas of Conservation (SAC) and four Special Protection Areas (SPA)[10]. There are also ten National Nature Reserves (NNR) and 27 Local Nature Reserves (LNR). There are a number of areas which have been identified as priority habitats: West Cambridge Hundreds, Ouse Valleys, Greensand Ridge, Cambridgeshire Fens, and Chalk and Chilterns. There are over 200 Priority Species found in Cambridgeshire and Peterborough, representing 38.2% of all priority species identified in the UK Biodiversity Action Plan (BAP)[11].
- Historic Environment – The numbers of listed buildings, scheduled monuments, registered parks and gardens, and conservation areas have been collected for the Cambridgeshire and Peterborough region. There are 8,261 listed buildings, 335 scheduled monuments, 38 registered parks and gardens and 229 conservation areas within the Cambridgeshire and Peterborough region[12]. In addition to having a sigificant number of designated sites, the area also benefits from numerous non-designated heritage assets and below ground archaeological material, centralised around Cambridge extending north into the corridor between Cambridge and Peterborough.
- Landscape - The landscape is characterised by flat land and small rolling hills in the West and South of Cambridgeshire, falling to flat and open fenland in the North and East. There are no Areas of Outstanding Natural Beauty (AONB) in the area. The East of England is the arable agricultural core of England which dominates the rural landscape. The Cambridgeshire and Peterborough region consists of nine National Character Areas (NCAs) and there are also a number of Landscape Character Areas (LCAs).
- Soils - The geology of the Cambridgeshire and Peterborough area is made up of sedimentary bedrock formed in shallow seas with mainly siliciclastic sediments (comprising fragments or clasts of silicate minerals) deposited as mud, silt, sand and gravel from the Jurassic and Cretaceous period[13]. Superficial deposits of predominately peat, sand and gravel, clay, silt and sand, and glacial till overlay the bedrock. As a result, the soils are rich in nutrients, which explains the rural and agricultural landscape that dominates the region. There are ten geological SSSI situated within Cambridgeshire and one within Peterborough which have been designated due to their geological value. The area includes 50% of the UK's Grade 1 agricultural land, predominantly within the Fens, making it an important area for the agricultural industry.
- Water - Flood risk is a significant concern across the Cambridgeshire and Peterborough region. Without flood defences, 34.5% of the Cambridgeshire and Peterborough area is at high risk of flooding. Over 50% of the land in Cambridgeshire is below mean sea level and

[9] Cambridgeshire Insight (ONS figures)

[10] DEFRA, MAGIC

[11] Cambridgeshire and Peterborough Biodiversity Action Group: http://www.cpbiodiversity.org.uk/biodiversity-action-plans/priority-species

[12] Historic England - Local Authority Indicator Profiles (2018)

[13] British Geological Society, Geology of Britain viewer

therefore reliant on pumped drainage. The northern area of Cambridgeshire, known as 'The Fens', is an artificially drained area and is the lowest lying area of land in Cambridgeshire. Holme Fen is the lowest point in the UK and is approximately 2.75m below sea level. In regard to water quality, there are four groundwater Source Protect Zones (SPZs) within the Cambridgeshire and Peterborough area, all of which fall within South Cambridgeshire[14]. There are also a number of surface water SPZs which cross over into the region, these include the River Nene, River Great Ouse, River Stour and Abberton.

- Air - Air quality in the region is varied and there are certain areas which suffer from poor air quality due to high concentrations of business and transport activities. There are 11 Air Quality Management Areas (AQMAs) within the Cambridgeshire and Peterborough area. Most annual averages of air pollution within Cambridgeshire are not over air quality thresholds. However, there are hot spots in Cambridgeshire caused by traffic-related pollution, especially in busy urban areas and around arterial and trunk roads such as the A14[15]. In 2017, 5.4% of deaths were attributable to particulate air pollution ($PM_{2.5}$) in Cambridgeshire and 5.3% in Peterborough. The highest fraction of deaths occurred in Cambridge at 5.6% and the lowest in Fenland at 5.1%[16].
- Climatic Factors - Observations show that the UK climate is continuing to warm and annual precipitation is increasing. The climate projections for the 2050s, under the RCP8.5 scenario (high emissions scenario), indicate that annual mean temperature will increase by 1.8°C in the East of England. Extreme temperatures are also projected with a 2.5°C increase on the hottest day. Precipitation for the same period is projected to decrease annual by 2%, however season variability is projected with a 9% increase in winter and 19% decrease in summer. For the 2080s, under the same emissions scenario, annual temperatures are projected to increase by 3.5°C with the extremes increasing by 4.5°C on the hottest day. Precipitation is also project to vary seasonally with a 20% increase in winter and 31% decrease in summer. Given that the area is low lying and climate change is projected to lead to more frequent and intense rainfall, it is likely that the risk of flooding will be heightened in the Cambridgeshire and Peterborough region. Carbon dioxide ($CO_2$) emissions in the Cambridgeshire and Peterborough area were 5,634 kilo-tonnes equivalent ($ktCO_2e$) in 2016. Road transport accounts for the highest proportion of emissions in Cambridge and Peterborough. Transport related emissions per capita across the Cambridgeshire and Peterborough area has decreased between 2005 and 2015. However, this is variable amongst the cities and the rural areas due to higher car ownership and usage in the latter.
- Material Assets - The Cambridgeshire and Peterborough area boasts an extensive transport network which connects people, places and services both within the region and beyond, and supports the regional economy. The region's main transport corridors include the A14, A428, A47 and A10. Private car dominates as the most popular mode of transport across the region with 40.1% and 41.4% of people travelling to work by driving a car or van in Cambridgeshire and Peterborough respectively[17]. However, this is varied across the region with as high as 46% in East Cambridgeshire and as low as 19% in Cambridge. The Cambridgeshire and Peterborough area is relatively well-connected to other parts of the country by rail, particularly Cambridge and Peterborough. The cities of Cambridge and Peterborough also have extensive bus networks and there are also Park and Ride services and the Cambridgeshire Guided Busway. Market towns surrounding Cambridge and Peterborough are connected to Cambridge or Peterborough by hourly or half hourly bus services. Rural villages in the Cambridgeshire and Peterborough area lack high-quality

[14] DEFRA, MAGIC
[15] Cambridgeshire JNSA, Transport and Air Pollution (2015)
[16] Public Health England, Public Health Profiles
[17] ONS, Method of travel to work (Census 2011)

connections to Cambridge and Peterborough, services are in-frequent with peak-time services only or none at all. The key airport for the Cambridgeshire and Peterborough area and the East of England is Stansted Airport. In regard to housing, the Cambridgeshire and Peterborough Devolution Deal has enabled £170m investment to fund extra affordable rented housing and shared ownership, including council housing in Cambridge[18]. These strategic sites will provide over 74,000 new homes, making a significant contribution to the overall housing target. Cambridge and Peterborough are both in the top ten cities nationally for housing growth[19]. However, latest figures indicate planning permissions for 28,507 new homes in Cambridgeshire but only 3,236 (11%) under construction; while for Peterborough there were over 8,188 permitted new homes where construction had not started[20].

### 4.4.1 Future Baseline

The SEA Directive requires that "*the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the Plan or Programme*" is identified. Prediction of future trends is difficult because they depend on a wide range of global, national and regional factors and decision making.

From an initial review it is likely that the following trends will continue:

- Air quality - new development, economic growth and tourism may lead to increased car journeys and congestion within the area leading to localised air quality effects. Public transport improvements, national air quality targets and European emissions standards for new vehicles should contribute to reducing future air quality impacts from motor vehicles.
- Water - increased economic growth and climate change is likely to cause an increase in run-off and potential contamination and disruption of flows for surface water and groundwater and put pressure on water resources. However, water quality is likely to continue to be maintained and improved through legislation such as the Water Framework Directive. Flooding is likely to continue to present a risk across the region, particularly in Cambridgeshire, therefore transport infrastructure will continue to be at risk. Climate change will likely contribute to an increased risk of flooding.
- Climatic factors - the climate is expected to continue to change with annual average temperatures projected to increase, particularly in summer. Winters are projected to be wetter and summers drier. More severe weather conditions including flash floods can affect transport infrastructure causing disruption and delays.
- Biodiversity – habitats and species are likely to continue to be protected through European and UK legislation. However, biodiversity in the UK is continuing to decline and future development, alongside population growth, may put further pressure on these ecological areas. Future climate change effects may affect ecosystems, habitats and species.
- Population - it is expected that the population will grow in certain areas of the Cambridgeshire and Peterborough area which could place additional pressures on the transport network, affecting access to key services and economic growth. There has been a significant behaviour change in relation to online shopping over the last 20 years. This has and will likely continue to lead to a surge in the use of light goods vehicles to deliver e-commerce parcels to residential locations and pick-up points which has subsequent effects on air quality and congestion.
- Human health – obesity, heart disease and respiratory problems are ongoing issues in the UK and are likely to continue. Active lifestyles, improved air quality and healthy eating

[18] CPCA, Strategic Spatial Framework (Non-Statutory)
[19] CPCA, Strategic Spatial Framework (Non-Statutory)
[20] Annual Monitoring Report 2018, Peterborough City Council

campaigns will help reduce this trend. There are health inequalities, including mental health issues, present across the region and these are likely to continue. Improved transport accessibility will likely help to reduce these inequalities and contribute to improved mental health and wellbeing.

- Material assets - regeneration and future investment and demand are likely to increase the number and quality of material assets such as housing, transport infrastructure, waste facilities, and community facilities.
- Landscape – changing and continued development will affect the quality and character of landscapes.
- Soil – as the population increases it is likely that more brownfield land will be remediated and developed. There is also potential for loss of agricultural land through development pressures.
- Historic environment - Historic England recently reported that heritage assets at risk are decreasing. There are now 94 fewer heritage assets at risks than in 2017 with successes in buildings and structures, places of worship, archaeology and conservation areas. Historic assets will likely continue to be protected through European and UK legislation. Development could put pressure on heritage assets and their setting.

### 4.4.2 Key Issues and Opportunities

A key stage in the SEA scoping process was to determine which topics were relevant to the Cambridgeshire and Peterborough LTP and which should be scoped out (if any). The SEA topics and the scoping determination for each is presented in Table 3. The table also presents the key issues and opportunities relevant to each topic, which were identified during the scoping process. Topics were scoped in based on the baseline situation and the Cambridgeshire and Peterborough LTP potentially impacting them. This was assessed by reviewing baseline conditions and current environmental issues for the Cambridgeshire and Peterborough area and assessing the likelihood of a potential impact.

**Table 3: Key Issues and Opportunities**

| SEA topic | Scoped in for further assessment | Implications | Opportunities |
|---|---|---|---|
| Population, Communities and Human Health | ✓ | Congestion can reduce the efficiency and reliability of the transport network, reduce accessibility, contribute to air quality and associated human health effects, and discourage investment and economic growth. Continued growth in online shopping resulting in an increase in light goods vehicles which will likely lead to effects on air quality and congestion. | The LTP has the potential to benefit local communities and the economy by improving access to key services and to also improve health and safety of the network. There is an opportunity to reduce congestion, improve the reliability of public transport and encourage active travel.<br>• Ensure transport links are reliable and accessible for all<br>• Promote active and sustainable modes of travel<br>• Ensure economic growth is supported by the transport network<br>• Deliver sustainable development, recognising social, environment and economic needs |
| Biodiversity, Flora and Fauna | ✓ | Development of new transport infrastructure can directly or indirectly affect designated and non-designated sites, habitats and species through loss of land, disturbance and damage. There may also be a fragmentation of habitats as a result of transport infrastructure. Improving access to nature reserves or greenspaces which | The LTP should ensure that there are no impacts on biodiversity and look to enhance biodiversity where possible through green infrastructure and sustainable design.<br>• Protecting, conserving and enhancing biodiversity<br>• Slow/halt biodiversity losses and declines<br>• Promote and achieve biodiversity net gain |

| SEA topic | Scoped in for further assessment | Implications | Opportunities |
|---|---|---|---|
| | | may not have the capacity to withstand the increased influx of visitors. | • Integrate biodiversity considerations into new infrastructure<br>• Increasing biodiversity connectivity of sites<br>• Connecting people with nature and improving sustainable access to greenspace for well-being and health |
| Historic Environment | ✓ | Increasing levels of congestion can affect the setting and character of historic assets, towns, cities and the countryside. New transport infrastructure can directly affect heritage assets and disturbance of archaeology in the absence of appropriate mitigation design measures. | Construction of the LTP projects may have impacts on the region's known and unknown heritage assets. The LTP should ensure that impacts on heritage assets are considered and appropriately mitigated through sensitive design.<br>• Protect archaeology<br>• Encourage public awareness through promoting heritage sites and transport links to sites<br>• Careful siting of infrastructure to reduce effects on the setting of historic assets |
| Landscape | ✓ | Transport infrastructure can affect the landscape character through visual intrusion and noise. | The construction and the operation of the LTP projects have the potential to affect the landscape character of the area. The LTP options should keep in line with the character of the area.<br>The LTP has the potential to connect people sustainably to landscape scale habitat projects.<br>• Ensure the landscape character is protected and enhanced where possible<br>• Sustainably connect people to landscape scale habitat projects |
| Soil | ✓ | Transport can contribute to soil contamination. | The construction of LTP projects could impact soil quality and the geological SSSIs within the Cambridgeshire and Peterborough area. The LTP should ensure that soil quality is protected, and any sources of pollution are prevented.<br>• Ensure soils are protected from contamination<br>• Protect agricultural land from disturbance and loss |
| Water | ✓ | Transport can contribute to water pollution through spills and contaminated run-off. Transport infrastructure can also increase the impermeable layer, increasing the speed at which rainwater enters watercourses therefore contributing to flood risk. This could have subsequent effects on downstream nature reserves. Options within the LTP have the potential to be affected by flooding. Mitigation and adaptation, including surface water drainage, should be incorporated into the design of the options in line with future climate change. | LTP projects have the potential to be affected by flooding. Flood risk adaptation and mitigation should be incorporated into the design of the LTP projects in line with future climate change.<br>• Ensure the protection, improvement and sustainable use of all waterbodies<br>• Ensure all sources of flood risk are considered, including residual risk where applicable, to demonstrate no increase in flood risk to the development or third parties as a result of the options<br>• Reduce or control water pollution<br>• Adhere to Environmental Permitting Regulations |
| Air | ✓ | Increasing private vehicle use leading to congestion and air pollution. | The LTP has the potential to affect air quality and GHG emissions due a change in transport related emissions. Concentrations of air pollutants and GHG emissions could increase during the construction phase of LTP options. The LTP has the opportunity mitigate any increases in pollutants and GHG emissions by promoting sustainable and active modes of travel.<br>• Encourage sustainable and active modes of transport<br>• Reduce car dependency |

| SEA topic | Scoped in for further assessment | Implications | Opportunities |
|---|---|---|---|
| | | | • Contribute to the Government's commitment to end the sale of new conventional petrol and diesel cars and vans by 2040<br>• Support the Government's plan to tackle roadside $NO_2$ concentrations |
| Climatic Factors | ✓ | Transport infrastructure is vulnerable to flooding. Climate change hazards, such as high temperatures and storms, can result in disruptions, delays and closure of transport modes. | The LTP could be affected by climatic factors and could also contribute to climate change. Climate change mitigation and adaptation measures should be incorporated into the design of the LTP projects.<br>• Design resilient transport networks<br>• Reduce GHG emission from transport |
| Material Assets | ✓ | Increased housing and development can place additional pressures on the transport network. | The LTP has the potential to update the existing transport infrastructure and better connect new housing developments.<br>• Utilise existing transport infrastructure<br>• Connect new and existing housing developments to key services |

## 4.5 SEA Framework

### 4.5.1 Developing the SEA Framework

A key part of the SEA scoping process was the development of the SEA Framework. The SEA Framework forms the basis for predicting and assessing the effects arising from the implementation of the Cambridgeshire and Peterborough LTP.

The Cambridgeshire and Peterborough LTP SEA objectives were developed based upon the SEA topics, baseline information, key issues in the Cambridgeshire and Peterborough area as well as being based upon the objectives in the SEA for the previous Cambridgeshire and Peterborough LTPs. The SEA Framework for the Cambridgeshire and Peterborough LTP is presented in Table 4 and includes SEA objectives, assessment criteria and indicators. The key indicators are shown in more detail in Appendix F and are based on the indicators in the previous LTP SEAs to allow continuation and comparison of trends. The indicators with an asterisk (*) after their titles are ones which are new additions since the previous LTP SEAs. The indicators chosen for monitoring will depend on the outcomes of the assessment stage and will focus where the assessment identifies negative effects or uncertainties.

**Table 4: SEA Framework**

| SEA Topic | Cambridgeshire and Peterborough LTP SEA Objectives | Topic Assessment Questions | Key Indicators |
|---|---|---|---|
| Population, Communities and Human Health | Improve the health of the population and reduce health inequalities between areas and groups | • Will residential areas have easy access to key services via sustainable transport modes?<br>• Will it increase connectivity and accessibility?<br>• Will it reduce health inequality?<br>• Will it encourage active and healthy lifestyles?<br>• Will it contribute to increasing mental wellbeing? | • Mortality rates by cause<br>• Life expectancy rates (at birth)<br>• Journey time to key services by public transport/walking (primary and secondary schools, GPs and hospitals)*<br>• Percentage of people with a limiting long-term health problem or illness<br>• Percentage of physically active adults*<br>• Prevalence of obesity in children (Year 6)<br>• Prevalence of overweight and obese children at Reception*<br>• Percentage of people who feel safe walking alone at night<br>• Public open space per 1,000 population<br>• Percentage of the population who cycle at least three times per week*<br>• Percentage of the population who make journeys by walking at least three times per week*<br>• Community transport – district car schemes reason for travel*<br>• Fraction of mortality attributable to particulate air pollution (PM2.5)* |
| | Improve the health and safety of the transport network, reducing the number of accidents and other incidents | • Will it affect road traffic accidents and incidents?<br>• Will it affect transport related health and nuisance issues? | • Total road traffic accidents by severity<br>• Total local road traffic accidents<br>• Total reported road accidents involving cyclists of pedestrians*<br>• Total crime rate per 1000 population<br>• Vehicle crime<br>• Vehicle theft<br>• Total number of assaults on public transport per annum*<br>• Survey data – “I feel that Public Transport is safe to use”* |
| | Improve accessibility to key services, employment and recreational areas for all areas of the community | • Will it promote regeneration of the area?<br>• Will it encourage investment and business into the area?<br>• Will it enhance tourism?<br>• Will it contribute to economic diversity?<br>• Will it open up areas for housing development?<br>• Will it improve access to a diverse housing market? | • Distance travelled to work<br>• Journey time to nearest town centre by public transport/walking*<br>• Percentage of residents within 30-minute walk/public transport of nearest town centre*<br>• Ratio of median house prices to median salary*<br>• Ratio of lower quartile house price to lower quartile salary*<br>• Ratio of new dwellings to population increase*<br>• Ratio of housing targets to housing completions* |
| | Support and contribute to local economic growth and competitiveness by delivering | • Will it promote regeneration of the area?<br>• Will it encourage investment and business into the area? | • Number of commuters*<br>• Non-frequent bus services running on time<br>• Average excess waiting times for frequent services* |

| SEA Topic | Cambridgeshire and Peterborough LTP SEA Objectives | Topic Assessment Questions | Key Indicators |
|---|---|---|---|
| | reliable and efficient transport networks | • Will it enhance tourism?<br>• Will it contribute to economic diversity? | • Travel time to employment centre by car*<br>• GVA per head*<br>• Unemployment rates<br>• Rail cancellations and significant lateness*<br>• Average minimum journey times by walking or public transport to nearest of selected rail stations*<br>• Average minimum journey times by car to the nearest of selected rail stations*<br>• Average minimum journey times by car to the nearest of selected airports*<br>• Average minimum journey times by public transport to the nearest of selected airports*<br>• Birth of businesses per 100,000 population*<br>• Number of tourists per annum*<br>• Total Foreign Direct Investment (FDI)*<br>• Survey – "Does your business think that the transport network in the local network is of a high standard"* |
| | Reduce road traffic and congestion through reducing the need to travel by car and improve and promote sustainable modes of transport including public transport, cycling and walking | • Will it reduce road traffic and congestion?<br>• Will it encourage use of sustainable transport modes, walking and cycling?<br>• Will it reduce the need to travel?<br>• Will it promote home working and tele commuting? | • Total passenger services on local bus services<br>• Method of travel to work<br>• Method of travel to school<br>• Traffic Volumes on major roads*<br>• Traffic counts at Cordons*<br>• Proportion of adults that walk or cycle for leisure or travel<br>• Travel time to employment centre by public transport/walking*<br>• Congestion – average journey time per mile during morning peak<br>• Total station entries and exits*<br>• Average number of selected major road junctions within 30 minutes' drive*<br>• Attitudes towards cycling – "I think that cycling on the road is safe"* |
| Biodiversity, Flora and Fauna | Protect and enhance biodiversity (including both habitat and species) and geodiversity at all levels | • Is the option likely to affect the conservation status of any SPA/SACs, Ramsar sites, SSSIs or locally designated sites?<br>• Is the option likely to affect ancient woodland, BAP habitats and/or protected and BAP species?<br>• Will the option affect any habitats that support legally protected species or species of conservation concern? | • Number of designated sites<br>• Area of woodland<br>• BAP habitats and species<br>• Achievement of biodiversity net gain on projects*<br>• Extent of habitat in good/ favourable condition* |

| SEA Topic | Cambridgeshire and Peterborough LTP SEA Objectives | Topic Assessment Questions | Key Indicators |
|---|---|---|---|
| | | • Is there potential for contribution to achieving 'favourable' conservation status or for creation of new BAP habitats?<br>• Is there a possibility for invasive species to be spread/ introduced or for algal blooms to occur?<br>• Would the option protect and enhance aquatic and terrestrial habitats and species?<br>• Are there any opportunities for habitat creation or restoration?<br>• Will the option enhance or create green infrastructure?<br>• Will the option contribute to landscape scale restoration and/or reversing habitat fragmentation?<br>• Will the option provide sustainable access to greenspace/nature reserve without causing impacts on the existing habitats? | |
| Historic Environment | Maintain, protect and enhance the historic environment, including archaeology, and the historic landscape character | • Will it affect the fabric of a historic asset?<br>• Will it affect the setting and/or significance of a historic asset?<br>• Will it affect archaeological (including unknown archaeology)?<br>• Will it affect conservation areas or historic landscape/townscape areas?<br>• Will the measures provide opportunities for improved access, understanding, awareness and enjoyment of the historic environment and heritage assets? | • Number of listed buildings<br>• Number of scheduled monuments<br>• Number of registered parks and gardens<br>• Number of conservation areas |
| Landscape | Maintain, protect and enhance the diversity and distinctiveness of the landscape and townscape character | • Will it affect quality of the public realm?<br>• Will it affect urban open spaces?<br>• Will it affect the character of the townscape? | • Number of National Character Areas (NCAs)<br>• Extent of green belt |
| Soil | Protect and conserve the quality of soils, minimising the loss of agricultural/greenfield land, and seek to remediate contaminated land | • Will it affect soil contamination?<br>• Will it involve remediation?<br>• Will it involve use of brownfield or greenfield land? | • Total area of grade 1, 2 or 3a agricultural land<br>• Housing built on previously developed land (PDL) |

| SEA Topic | Cambridgeshire and Peterborough LTP SEA Objectives | Topic Assessment Questions | Key Indicators |
|---|---|---|---|
| Water | Protect and enhance the quality of the water environment | • Will it affect surface water quality?<br>• Will it affect ground water quality?<br>• Will it promote use of SuDS? | • Percentage of river length assessed as good or fair chemical and biological quality<br>• Groundwater source protection zones (SPZ) |
| | Reduce the risk of flooding to transport infrastructure and minimise its contribution to flood risk | • Will it affect flood risk?<br>• Is it vulnerable to current flood risk? | • Area at risk from flooding |
| Air | Protect and improve local air quality, particularly in the AQMAs | • Will it affect local air quality? | • Number of AQMAs<br>• Levels of main air pollutants<br>• Percentage reduction in $NO_x$ and primary $PM_{10}$ emissions through local authority's estate and operations<br>• Trends in $NO_2$ concentration at a range of monitoring sites*<br>• Trends in $PM_{10}$ concentration at a range of monitoring sites* |
| Climatic Factors | Minimise GHG emissions and reduce Cambridgeshire and Peterborough's contribution to climate change | • Will it affect carbon or other GHG emissions?<br>• Is there potential to offset energy use or use renewable energy technologies? | • Motor vehicle traffic (miles)<br>• Transport related $CO_2$ emissions<br>• Total $CO_2$ emissions |
| | Reduce vulnerability to climate change by minimising the risk of flooding and effects from other climate hazards | • Is it vulnerable to extreme weather events?<br>• Will it include climate resilience measures?<br>• Is it vulnerable to flooding associated with climate change? | • Adapting to climate change<br>• Flood and coastal erosion risk management |
| Material Assets | Maximising the use and lifespan of existing transport infrastructure | • Will it include use of existing transport infrastructure? | • Number of new infrastructure schemes*<br>• Number of improvements to existing infrastructure schemes* |

## 4.6 Compatibility of Objectives

### 4.6.1 Compatibility of SEA Objectives

When developing SEA objectives based on environmental, social, and economic issues, it is likely that not all of these objectives will relate or be compatible. For example, objectives which are economic issues may sometimes conflict with environmental objectives, and vice versa. A compatibility assessment of the SEA objectives is presented in Table 5. It demonstrates that the SEA objectives support each other, and no conflicts have been identified.

The following key has been used to illustrate the SEA objectives compatibility:

| | |
|---|---|
| + | Objectives are compatible |
| - | Objectives are potentially incompatible |
| 0 | Objectives are not related |
| / | Uncertainty over relationship |

## Table 5: SEA Compatability Matrix

| | 1. Improve the health of the population and reduce health inequalities between areas and groups | 2. Improve the health and safety of the transport network, reducing the number of accidents and other incidents | 3. Improve accessibility to key services, employment and recreational areas for all areas of the community | 4. Support and contribute to local economic growth and competitiveness by delivering reliable and efficient transport networks | 5. Reduce road traffic and congestion through reducing the need to travel by car and improve and promote sustainable modes of transport including public transport, cycling and walking | 6. Protect and enhance biodiversity (including both habitat and species) and geodiversity at all levels | 7. Maintain, protect and enhance the historic environment, including archaeology, and the historic landscape character | 8. Maintain, protect and enhance the diversity and distinctiveness of the landscape and townscape character | 9. Protect and conserve the quality of soils, minimising the loss of agricultural/ greenfield land, and seek to remediate contaminated land | 10. Protect and enhance the quality of the water environment | 11. Reduce the risk of flooding to transport infrastructure and minimise its contribution to flood risk | 12. Protect and improve local air quality, particularly in the AQMAs | 13. Minimise GHG emissions and reduce Cambridgeshire and Peterborough's contribution to climate change | 14. Reduce vulnerability to climate change by minimising the risk of flooding and effects from other climate hazards | 15. Maximising the use and lifespan of existing transport infrastructure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2. Improve the health and safety of the transport network, reducing the number of accidents and other incidents | + | | | | | | | | | | | | | | |
| 3. Improve accessibility to key services, employment and recreational areas for all areas of the community | + | + | | | | | | | | | | | | | |
| 4. Support and contribute to local economic growth and competitiveness by delivering reliable and efficient transport networks | + | + | + | | | | | | | | | | | | |
| 5. Reduce road traffic and congestion through reducing the need to travel by car and improve and promote sustainable modes of transport including public transport, cycling and walking | + | + | + | + | | | | | | | | | | | |
| 6. Protect and enhance biodiversity (including both habitat and species) and geodiversity at all levels | + | 0 | 0 | 0 | + | | | | | | | | | | |
| 7. Maintain, protect and enhance the historic environment, including archaeology, and the historic landscape character | + | 0 | 0 | 0 | + | + | | | | | | | | | |
| 8. Maintain, protect and enhance the diversity and distinctiveness of the landscape and townscape character | + | 0 | 0 | 0 | + | + | + | | | | | | | | |
| 9. Protect and conserve the quality of soils, minimising the loss of agricultural/greenfield land, and seek to remediate contaminated land | 0 | + | 0 | 0 | + | + | + | + | | | | | | | |
| 10. Protect and enhance the quality of the water environment | + | + | 0 | 0 | + | + | + | + | + | | | | | | |
| 11. Reduce the risk of flooding to transport infrastructure and minimise its contribution to flood risk | + | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | | | | | |
| 12. Protect and improve local air quality, particularly in the AQMAs | + | 0 | 0 | + | + | + | + | + | 0 | 0 | 0 | | | | |
| 13. Minimise GHG emissions and reduce Cambridgeshire and Peterborough's contribution to climate change | + | 0 | 0 | + | + | + | + | + | 0 | 0 | 0 | + | | | |
| 14. Reduce vulnerability to climate change by minimising the risk of flooding and effects from other climate hazards | + | + | 0 | + | 0 | + | + | + | 0 | + | + | + | + | | |
| 15. Maximising the use and lifespan of existing transport infrastructure | 0 | + | 0 | + | 0 | + | + | + | + | 0 | + | 0 | 0 | + | |

### 4.6.2 Compatibility of SEA and LTP Objectives

It is important that the objectives developed for the LTP are compatible with the SEA objectives. A compatibility assessment of the SEA and LTP objectives is presented in Table 6.

The following key has been used to illustrate the objectives compatibility:

| | |
|---|---|
| + | Objectives are compatible |
| - | Objectives are potentially incompatible |
| 0 | Objectives are not related |
| / | Uncertainty over relationship |

The compatibility matrix demonstrates that the SEA and LTP objectives are compatible with one another. The LTP objective on supporting housing could conflict with SEA objectives on biodiversity and landscape depending where these developments are located. However, any new development would have to go through a site selection and planning process which would consider these effects. The LTP itself is not proposing housing but transport infrastructure is important in unlocking development sites and ensuring new sites are well connected by sustainable transport modes.

**Table 6: LTP and SEA Objectives Compatibility Matrix**

| SEA Objectives | LTP Objectives: Support new housing and development to accommodate a growing population and workforce, and address housing affordability issues. | Connect all new and existing communities sustainably so all residents can easily access a good job, spreading the region's prosperity. | Ensure all of our region's businesses and tourist attractions are connected sustainably to our main transport hubs, ports and airports. | Build a resilient and adaptive network that is less susceptible to human and environmental disruption, improving journey time reliability. | Embed a safe systems approach into all planning and transport operations to achieve Vision Zero – zero fatalities or serious injuries. | Promote social inclusion through the provision of a sustainable transport network that is affordable and accessible for all. | Provide 'healthy streets' and high-quality public realm that puts people first and promotes active lifestyles. | Ensure transport initiatives improve air quality across the region to exceed good practice standards. | Deliver a transport network that protects and enhances our natural, historic and built environments. | Reduce emissions to as close to zero as possible to minimise the impact of transport and travel on climate change. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Improve the health of the population and reduce health inequalities between areas and groups | + | + | + | + | + | + | + | + | + | + |
| 2. Improve the health and safety of the transport network, reducing the number of accidents and other incidents | 0 | + | + | 0 | + | + | 0 | + | 0 | 0 |
| 3. Improve accessibility to key services, employment and recreational areas for all areas of the community | + | + | + | + | 0 | + | 0 | 0 | 0 | 0 |
| 4. Support and contribute to local economic growth and competitiveness by delivering reliable and efficient transport networks | + | + | + | + | + | + | + | + | 0 | + |
| 5. Reduce road traffic and congestion through reducing the need to travel by car and improve and promote sustainable modes of transport including public transport, cycling and walking | 0 | + | + | + | 0 | + | + | + | + | + |
| 6. Protect and enhance biodiversity (including both habitat and species) and geodiversity at all levels | 0 | 0 | 0 | 0 | 0 | 0 | + | + | + | + |
| 7. Maintain, protect and enhance the historic environment, including archaeology, and the historic landscape character | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 |
| 8. Maintain, protect and enhance the diversity and distinctiveness of the landscape and townscape character | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | + | 0 |
| 9. Protect and conserve the quality of soils, minimising the loss of agricultural/greenfield land, and seek to remediate contaminated land | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 |
| 10. Protect and enhance the quality of the water environment | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 |
| 11. Reduce the risk of flooding to transport infrastructure and minimise its contribution to flood risk | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | + | 0 |
| 12. Protect and improve local air quality, particularly in the AQMAs | 0 | + | + | 0 | 0 | + | + | + | + | + |
| 13. Minimise GHG emissions and reduce Cambridgeshire and Peterborough's contribution to climate change | 0 | + | + | 0 | 0 | + | + | + | + | + |
| 14. Reduce vulnerability to climate change by minimising the risk of flooding and effects from other climate hazards | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 |
| 15. Maximising the use and lifespan of existing transport infrastructure | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# 5 LTP Strategic Alternatives

## 5.1 Developing the LTP Strategic Alternatives

Several potential transport strategies were considered in the development of the Cambridgeshire and Peterborough LTP.

The themes considered for development within the LTP can be summarised into four broad strategy options. Each option places a different level of focus on investment and financial support for the highway network, bus and rail network, and walking and cycling network. Each strategy option has been developed in outline, and are:

- **Strategy 1: 'Highway - max'** – intensive investment in highway infrastructure, limited investment in public transport and walking/cycling.
- **Strategy 2: 'Public Transport - max'** – intensive investment in public transport, limited investment in walking/cycling, Do Minimum investment in highway.
- **Strategy 3: 'Managed demand'** – limited investment in public transport and walking/cycling; Do Minimum investment in highway.
- **Strategy 4: 'Blended'** – intensive investment in walking/cycling, with complementary, intensive investment in public transport and highway infrastructure dependent on local context and objectives, supported by demand management.

### 5.1.1 Strategy 1: Highway – max

This strategy focuses on providing additional highway capacity in order to meet projected traffic demand, in line with existing (predominately highway-based) trip patterns within Cambridgeshire and Peterborough. It assumes that:

- Existing high levels of mode share for private car (except in Cambridge city) remains broadly constant into the future, including from trips generated by new development.
- There is broadly a 'predict-and-provide' approach to highway investment, based on historic traffic trends.
- Limited demand management, or active initiatives to encourage mode shift.
- Capital investment in public transport and walking and cycling infrastructure only where there is proven demand and/or overcrowding of existing services.
- Continued financial support for existing supported bus services, broadly comparable to today.

Such a strategy could be expected to see the following projects treated as 'high' and 'low' priorities respectively:

| 'High' priority<br>Scheme prioritised for early delivery | 'Low' priority<br>Schemes rejected and/or postponed |
|---|---|
| A10 Ely to Cambridge dualling | Cambridgeshire Autonomous Metro |
| A428 Caxton Gibbet to Black Cat dualling | Wisbech Rail Link |
| Upgrades to the Parkway network in Peterborough, including widening and/or junction enhancements | Rural bus investment |
| A47 dualling | Cambridge South station |
| Huntingdon Third River Crossing | Walking/cycling investment outside of Greater Cambridge |

### 5.1.2 Strategy 2: Public Transport - max

This strategy focuses on delivering intensive investment in improved public transport infrastructure, supported by walking and cycling investment. It focuses upon:

- Very high levels of investment to maximise mode shift to public transport across the Combined Authority, within both rural and urban areas.
- Significant investment in walking and cycling infrastructure across the Combined Authority, within both rural and urban areas, integrated into public transport services.
- Significant increases in ongoing financial support for local bus and rail services (funded through the Combined Authority).
- Very limited investment in the highway network, with funding prioritised on highway maintenance and, where new settlements necessitate, improved access to the highway network.

Such a strategy could be expected to see the following projects treated as 'high' and 'low' priorities respectively:

| 'High' priority<br>Scheme prioritised for early delivery | 'Low' priority<br>Schemes rejected and/or postponed |
|---|---|
| Cambridgeshire Autonomous Metro | Upgrades to the Parkway network in Peterborough, including widening and/or junction enhancements |
| Wisbech Rail Link | A428 Caxton Gibbet to Black Cat dualling |
| Rural bus investment | A47 dualling |
| Cambridge South station | Huntingdon Third River Crossing |
| Walking/cycling investment across the Combined Authority | |

### 5.1.3 Strategy 3: Managed Demand

This strategy focuses on managing overall transport demand to relieve pressures on the highway and public transport network, prioritising policy measures to reduce the need to travel over those that increase transport capacity. This would include:

- Significant funding and support for behavioural change initiatives, including encouraging car sharing, active travel and public transport usage.
- Limited investment in new public transport and walking/cycling infrastructure, only where required to meet expected demand and reduce overcrowding (as opposed to new links and connections).
- Very limited investment in the highway network, with funding prioritised on highway maintenance and where new settlements necessitate improved access to the highway network.

Such a strategy could be expected to see the following projects and initiatives treated as 'high' and 'low' priorities respectively:

| 'High' priority<br>Schemes / initiatives prioritised for early delivery | 'Low' priority<br>Schemes rejected and/or postponed |
|---|---|
| Demand management/behavioural change initiatives e.g. encouraging car sharing/walking/cycling | Upgrades to the Parkway network in Peterborough, including widening and/or junction enhancements |
| Local bus services enhancements where required to increase capacity (particularly in urban areas) | A428 Caxton Gibbet to Black Cat dualling |

| 'High' priority<br>Schemes / initiatives prioritised for early delivery | 'Low' priority<br>Schemes rejected and/or postponed |
|---|---|
| Traffic filtering/highway management (e.g. Cambridge City Access) | A47 dualling |
| Ely Rail Junction Enhancements (to provide additional train capacity) | Cambridgeshire Autonomous Metro |

### 5.1.4 Strategy 4: Blended

This strategy focuses on a range of significant capital investments in highway, public transport and walking and cycling infrastructure, designed to support a significant increase in travel demand (expected to be generated by significant new development) but tailored to the local geographic and travel context. It includes elements of all the above strategies, and focuses on:

- Delivering significant investment in new, transformational public transport infrastructure (such as the Cambridgeshire Autonomous Metro) where public transport demand is expected to be greatest (in and surrounding large urban areas where highway capacity is most constrained).
- Delivering significant investment in highway capacity where:
  - required to best support new development
  - to improve strategic connectivity (e.g. to the Fens).
- Delivering investment in walking and cycling infrastructure across the Combined Authority, but focused where demand and benefits are likely to be strongest (within urban areas, particularly in and surrounding Greater Cambridge).
- Demand management measures to tackle specific transport and environmental challenges (such as local areas of poor air quality or traffic congestion).

## 5.2 Assessment of the LTP Strategic Alternatives

The LTP strategic alternatives (strategy options) were assessed against the LTP objectives and the SEA objectives. Each strategy was assessed on its own ability to meet the LTP and SEA objectives using the scale below.

| Assessment Scale | Significance of Effect |
|---|---|
| +++ | Major positive effect |
| ++ | Moderate positive effect |
| + | Minor positive effect |
| 0 | Neutral or no effect |
| - | Minor negative effect |
| - - | Moderate negative effect |
| - - - | Major negative effect |
| ? | Requires further classification at this stage |

Table 7 presents the results of the assessment of the LTP strategic alternatives against the LTP objectives and Table 8 presents the results of the assessments of the LTP strategic alternatives against the SEA objectives.

### Table 7: Assessment of LTP Strategic Alternatives against LTP objectives

| LTP Strategic Alternatives / LTP Objectives | Strategy 1: Highway - max | Strategy 2: Public Transport - max | Strategy 3: Managed Demand | Strategy 4: Blended |
|---|---|---|---|---|
| **Support new housing and development to accommodate a growing population and workforce, and address housing affordability issues.** | ++ | + | -- | +++ |
| **Connect all new and existing communities sustainably so all residents can easily access a good job, spreading the region's prosperity.** | + | ++ | - | ++ |
| **Ensure all of our region's businesses and tourist attractions are connected sustainably to our main transport hubs, ports and airports.** | ++ | ++ | - | ++ |
| **Build a resilient and adaptive network that is less susceptible to human and environmental disruption, improving journey time reliability.** | 0 | ++ | + | +++ |
| **Embed a safe systems approach into all planning and transport operations to achieve Vision Zero – zero fatalities or serious injuries.** | 0 | ++ | +++ | ++ |
| **Promote social inclusion through the provision of a sustainable transport network that is affordable and accessible for all.** | - | +++ | + | ++ |
| **Provide 'healthy streets' and high-quality public realm that puts people first and promotes active lifestyles.** | --- | +++ | ++ | ++ |
| **Ensure transport initiatives improve air quality across the region to exceed good practice standards.** | --- | ++ | +++ | ++ |
| **Deliver a transport network that protects and enhances our natural, historic and built environments.** | --- | ++ | +++ | ++ |
| **Reduce emissions to as close to zero as possible to minimise the impact of transport and travel on climate change.** | --- | ++ | +++ | ++ |

Source: Steer

### Table 8: Assessment of LTP Strategic Alternatives against SEA objectives

| LTP Strategic Alternatives / SEA Objectives | Strategy 1: Highway - max | Strategy 2: Public Transport - max | Strategy 3: Managed Demand | Strategy 4: Blended |
|---|---|---|---|---|
| 1. Improve the health of the population and reduce health inequalities between areas and groups | -- | +++ | ++ | ++ |
| 2. Improve the health and safety of the transport network, reducing the number of accidents and other incidents | 0 | 0 | ++ | ++ |
| 3. Improve accessibility to key services, employment and recreational areas for all areas of the community | + | ++ | - | ++ |
| 4. Support and contribute to local economic growth and competitiveness by delivering reliable and efficient transport networks | ++ | ++ | - | ++ |
| 5. Reduce road traffic and congestion through reducing the need to travel by car and improve | --- | +++ | +++ | ++ |

| LTP Strategic Alternatives / SEA Objectives | Strategy 1: Highway - max | Strategy 2: Public Transport - max | Strategy 3: Managed Demand | Strategy 4: Blended |
|---|---|---|---|---|
| and promote sustainable modes of transport including public transport, cycling and walking | | | | |
| 6. Protect and enhance biodiversity (including both habitat and species) and geodiversity at all levels | - | ++ | +++ | ++ |
| 7. Maintain, protect and enhance the historic environment, including archaeology, and the historic landscape character | - | ++ | +++ | ++ |
| 8. Maintain, protect and enhance the diversity and distinctiveness of the landscape and townscape character | - | + | ++ | ++ |
| 9. Protect and conserve the quality of soils, minimising the loss of agricultural/greenfield land, and seek to remediate contaminated land | - | + | ++ | ++ |
| 10. Protect and enhance the quality of the water environment | - | + | ++ | ++ |
| 11. Reduce the risk of flooding to transport infrastructure and minimise its contribution to flood risk | 0 | 0 | + | + |
| 12. Protect and improve local air quality, particularly in the AQMAs | -- | ++ | +++ | ++ |
| 13. Minimise GHG emissions and reduce Cambridgeshire and Peterborough's contribution to climate change | -- | ++ | +++ | ++ |
| 14. Reduce vulnerability to climate change by minimising the risk of flooding and effects from other climate hazards | 0 | + | + | + |
| 15. Maximising the use and lifespan of existing transport infrastructure | 0 | 0 | ++ | + |

**Strategic Alternative 1 – Highway - max**

Strategic Alternative 1: 'Highway-max' performs well against providing the additional transport capacity to support new housing development, connecting new and existing communities to employment areas, and providing connectivity to major transport hubs, reflecting that fact that the significant majority of travel in the Combined Authority currently takes place by car.

However, the strategy does not have a 'large beneficial' effect against these objectives since it fails to provide significant improvements in accessibility for those who do not have access to a car, and particularly within Greater Cambridge, would fail to support agglomeration and better accessibility between major science and business clusters, key to supporting the regions' high-tech, high-value economy. This is reflective of how, even with significant investment, peak highway journeys are unlikely to reduce significantly due to traffic congestion and further induced highway demand.

Furthermore, this strategic alternative fails to support the wider social and environment objectives of the LTP. Greater reliance on the private car compared to other modes is likely to exacerbate car dependency, undermining the viability of public transport and reducing social inclusion, as well as the ability to provide 'healthy streets' and liveable communities. Significant highway investment is also likely to further undermine improvements in air quality, increase greenhouse gas emissions, and risks damaging the natural, built and historic environments.

However, a future change to electric cars could reduce effects but not in the short to medium term.

**Strategic Alternative 2 – Public Transport - max**

Strategic Alternative 2: 'Public Transport-max' performs strongly against meeting social objectives, providing a step-change in public transport accessibility which helps support social inclusion, promote healthy streets and provide a more resilient transport network (due to providing more travel options and opportunities). It also performs strongly against most environment objectives, although the need for significant new public transport capacity will require significant new physical infrastructure (e.g. new rail and segregated transit corridors) which will be associated with a degree of impact on the natural environment and carbon emissions.

However, whilst still positive, this strategy performs less well against economic objectives, in particular supporting additional housing development and connecting people to jobs. Since much of the Combined Authority – particularly rural districts – rely heavily on the private car, it is considered unrealistic for additional public transport capacity and mode share to entirely support the travel needs of new development and the regions' growth. Even with a high level of mode shift, an absence of highway investment is likely to result in a continued worsening of traffic congestion, which will undermine housing delivery and the region's competitiveness.

**Strategic Alternative 3 – Managed Demand**

Strategic Alternative 3: 'Managed Demand' performed strongly against environmental objectives, with both a reduction in travel demand and the requirement for less new physical infrastructure resulting in improved air quality, lower carbon emissions and a lower impact on the natural and built environment than other options. Emphasis on support for behavioural change interventions, together with greater support for existing bus and rail services, also means that this option performs positively against social objectives, such as promoting social inclusion and healthy lifestyles.

However, the emphasis away from physical infrastructure interventions – including both highway and public transport – means that this option performs poorly against economic objectives. Considering the ambition to double the Combined Authority's GVA by 2050, and the resultant increase in travel demand, it is not considered realistic that demand management techniques can reduce overall travel demand sufficiently to avoid worsening congestion on the region's highway and public transport networks. This will have a negative impact on the ability to support new housing development, together with improving access to employment and to international transport gateways. Overall impacts on social inclusion are also more limited than Strategic Alternatives 2 and 4 as it does not include the delivery of new, transformatory projects such as the Cambridgeshire Autonomous Metro, which will significantly improve public transport accessibility and create a genuine, attractive alternative to the private car.

**Strategic Alternative 4 - Blended**

Strategic Alternative 4: 'Blended' includes a combination of policies and projects from the strategic alternatives above, including new highway capacity where most required to support growth, significant public transport, walking and cycling investment (including in CAM and Wisbech Rail Link to support social inclusion, access to employment and sustainable development), together with demand management where transport capacity is most constrained. In doing so, it seeks to combine the benefits of the alternatives above to create a balanced, multi-modal transport strategy for Cambridgeshire and Peterborough.

The strategic alternative therefore performs well against economic objectives, providing both the highway and public transport capacity required to support growth, together with improving access to employment and international gateways by providing better multi-modal transport accessibility. Significant new public transport, walking and cycling infrastructure also mean that this option performs well against social objectives, including ensuring social inclusion for those without access to a car, albeit slightly less than Strategic Alternative 2: 'Public Transport-max'. The requirement for significant new infrastructure, designed to cater for a significant increase in overall travel demand, also means that it performs slightly weaker against environmental objectives than Strategic Alternative 3: 'Managed Demand'.

## 5.3 Preferred Option

Strategy 4: 'Blended' was adopted for the LTP and is documented within the LTP document itself. This strategy provided the best balance of benefits against all the objectives - economic, social, and environmental.

# 6 Assessment of the LTP

## 6.1 Assessment Process

This section presents the results of the assessment of the draft Cambridgeshire and Peterborough LTP policies and projects. The assessment was undertaken using the assessment methodology presented below.

### 6.1.1 Scope of the Assessment

**Spatial scope** - The proposed study area for the SEA of the LTP covers the Cambridgeshire County Council boundary and the four Districts (Fenland, Huntingdonshire, East Cambridgeshire and South Cambridgeshire), Cambridge City Council, and Peterborough City Council Boundary (see Figure 2 in Section 2.2).

**Temporal scope** - The LTP sets out a long-term transport strategy for Cambridgeshire and Peterborough to 2050.

**Technical scope** - The SEA Directive and the SEA regulations require that the likely significant effects on the environment are assessed based on the topics listed below. All the topics have been scoped into the SEA including:

- Air – air quality
- Biodiversity, Flora, Fauna – designated and non-designated sites, species and habitats
- Climatic factors – climate projections, greenhouse gas emissions, climate resilience
- Historic Environment - architectural and archaeological heritage and historic landscapes
- Human health – health and wellbeing
- Landscape – designated and non-designated national and local landscapes
- Material assets – critical infrastructure, transport, housing
- Population – demographics, economy, deprivation
- Soil – soil quality, agricultural land, contamination
- Water – water quality and water resources, flood risk
- The interrelationship between these factors

### 6.1.2 Identification and Prediction of Effects

The LTP consists of policies and projects, designed to deliver the Plan's objectives. The SEA has assessed the environmental implications of the proposed LTP policies. The majority of the projects proposed for inclusion in the LTP are taken from the previous Cambridgeshire and Peterborough LTPs and therefore, have already been subject to SEA. These projects were only re-assessed if either the project or baseline had changed. Some of these projects have progressed to design or construction stage, in which case they can be considered part of the baseline. New or amended projects were subject to a full assessment.

### 6.1.3 Determining Significance of Effects

The assessment was based on a qualitative eight-point scale as presented in Table 9 to describe the significance of effects.

Moderate and major positive and negative effects have been considered of significance whereas no effect and minor positive and negative effects have been considered non-significant.

**Table 9: Criteria for Assessing Significance of Effects**

| Assessment Scale | Significance of Effect |
|---|---|
| +++ | Major positive effect |
| ++ | Moderate positive effect |
| + | Minor positive effect |
| 0 | Neutral or no effect |
| - | Minor negative effect |
| -- | Moderate negative effect |
| --- | Major negative effect |
| ? | Requires further classification at this stage |

It should be noted that in some instances more than one score was recorded e.g. + / - or ? / -. This occurred where effects were both positive and negative on the same receptor, or where there was uncertainty over the effect but the potential for either positive or negative effects.

The level of significance was assigned after considering the scale and magnitude of the identified effect against the importance of the receptor. Table 10 shows how the scale/magnitude was considered against the importance of the receptor being considered. The list of receptors given in the table is not exhaustive but provides examples of how the magnitude of predicted effects was considered to determine the significance of impacts. The significance of impacts was not clear cut in each case, and professional judgement was used in some cases to determine overall significance.

**Table 10: Defining Magnitude of Effects**

| Magnitude | Description of Effect |
|---|---|
| High | Negative effects would result in the complete loss of the receptor and/or severe damage to its integrity/quality/key characteristics/features/elements |
| | Positive effects would result in a large-scale improvement, enhancement or restoration of a receptor, large scale improvements to integrity/quality, or creation of a new internationally/nationally important resource |
| Medium | Negative effects would result in some loss of or damage to the receptor, but not sufficient to adversely affect its overall integrity. Partial loss of or damage to quality/key characteristics/ features/elements |
| | Positive effects would result in some improvement, enhancement or restoration of a receptor, improvements to integrity/quality, or creation of a new regionally important resource |
| Low | Negative effects would result in some measurable change to the receptor and/or change in quality or alteration of one or more key characteristics/ features/elements |
| | Positive effects would result in a small improvement to or addition of one or more key characteristics/ features/elements. Creation of a new locally important receptor/resource |

### 6.1.4 Incorporating results of other assessments into the SEA

As discussed in the Section 1.1, a HRA and CIA (incorporating HIA and EqIA) are being undertaken alongside the SEA as part of the LTP development.

**HRA**

Under the European Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora (also known as the 'Habitats Directive'), and the resulting Conservation of Habitats and Species Regulations 2010 (as amended), a HRA is required where a plan may

give rise to significant effects on European designated sites, known as Natura 2000 sites. Natura 2000 sites consist of Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Ramsar sites, and also include potential SPA and candidate SAC. A HRA 'Task 1: Screening' (Test of Likely Significance) has been undertaken for the draft LTP. The results of the HRA screening were used to inform the SEA by feeding into the assessment under objectives on ecology and biodiversity, and water quality.

**CIA**

The CIA sets out the key potential social and community impacts of the LTP. The process was centred on the delivery of two key documents – the EqIA and the HIA – but draws the findings of those studies together alongside additional evidence and analysis not covered by them and focussed on social impacts as defined within Environmental Impact Assessment (EIA) regulations regarding population and health, and WebTAG appraisal guidance. The primary focus was on the impact of the LTP on areas of deprivation, and on those reliant on the transport network for access to social and economic opportunity. The findings from the CIA were used to help inform the SEA by feeding into the assessment under objectives on population and human health.

## 6.2 Assessment of LTP Policies

Table 11 to Table 21 provide a summary of the LTP policy assessment results, grouped according to the LTP objective they sit under, and a commentary on the potential effects is presented below each summary table. The full assessment tables are presented in Appendix G.

It should be noted that a summary version of the SEA objectives has been used in the assessment tables below. The full wording of the SEA objectives can be found in Table 4.

### 6.2.1 Objective 1: Support new housing and development to accommodate a growing population and workforce, and address housing affordability issues

**Table 11: Policy Assessment Summary – Objective 1 Policies**

| LTP policy | SEA Objectives: Health | Safety | Accessibility | Economy | Sustainable Transport | Biodiversity / Geodiversity | Historic Environment | Landscape | Soils | Water | Flood risk | Air Quality | GHG emissions | Climate resilience | Reuse of Infrastructure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Policy Theme 1.1: Enabling development | | | | | | | | | | | | | | | |
| Policy 1.1.1: Deliver strategic transport and complementary connectivity infrastructure | - / + | - / + | ++ | ++ | - / ++ | ? / - - | ? / - | ? / - | ? / - - | ? / - | ? / - | - / ++ | - / + | ? / - | + |
| Policy 1.1.2: Early engagement with developers | + | + | + | ++ | + | 0 | 0 | 0 | 0 | 0 | 0 | + | + | + | 0 |
| Policy 1.1.3: Secure developer contributions for strategic and local infrastructure | + | ++ | ++ | ++ | ++ | ? / - | ? / - | ? / - | ? / - | ? / - | ? / - | + | + | ? / - | + |

**Summary**

All the policies aim to incentivise development and open-up new and existing areas of land through investment in and planning of transport. The policies aim to ensure developments are well-connected through sustainable transport modes which will have positive effects for health, accessibility, reduced congestion, improved air quality and GHG emissions reduction, and benefits for the local economy. All the policies aim to ensure new developments are well-connected, helping connect housing developments with employment centres, improving the efficiency of the transport network for residents in these areas, and opening up development land.

Policy 1.1.1 contains a number of road, rail and light rail related projects which will have the potential to have mixed effects on health of the local population, safety of the transport network, air quality and GHG emissions. The road schemes may lead to a reduction in congestion, however it may also attract additional vehicles. The rail schemes will promote the use of public transport and have the potential to reduce the reliance on private cars. The policy will likely have a benefit to the local economy and accessibility by making the transport network more efficient and reliable. There is potential for the policy to have negative effects on biodiversity, the historic environment, landscape, soils, the water environment, flood risk and climate resilience given the proposal include new transport infrastructure.

Policy 1.1.2 will help ensure developers properly plan transport infrastructure and connections for new developments. It promotes communication with developers throughout the planning process to ensure developers plan for appropriate phasing of development and future growth to potentially avoid congestion and improve accessibility in growth areas. The policy could also have an indirect positive effect on climate resilience, as early engagement

with developers could include consideration of future climate change effects within scheme design, however, this has been scored as neutral as the policy does not specify what early engagement will cover.

Policy 1.1.3 sets out the requirement for developer contributions are sought for strategic and local infrastructure where appropriate. This includes improving or constructing new transport infrastructure which therefore has the potential to negatively affect biodiversity, the historic environment, landscape, soils, the water environment, flood risk and climate resilience. There is potential for the health and safety of the road network to be improved as the policy contains requirements that new developments are accessibility in a safe manner and that impacts on the transport network are mitigated. The policy is also likely to increase accessibility by ensuring new developments are well connected and will also likely have benefits for the local economy.

### 6.2.2 Objective 2: Connect all new and existing communities sustainable so all residents can easily access a good job, spreading the region's prosperity

**Table 12: Policy Assessment Summary – Objective 2 Policies**

| LTP policy | SEA Objectives: Health | Safety | Accessibility | Economy | Sustainable Transport | Biodiversity / Geodiversity | Historic Environment | Landscape | Soils | Water | Flood risk | Air Quality | GHG emissions | Climate resilience | Reuse of Infrastructure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Policy Theme 2.1: Connecting Developments Sustainability | | | | | | | | | | | | | | | |
| Policy 2.1.1 Support the provision of sustainable connectivity to and within developments | ++ | + | ++ | + | +++ | + | 0 | + | 0 | 0 | 0 | ++ | + | 0 | + |
| Policy 2.1.2 Ensure developers provide sufficient transport infrastructure capacity to support and meet all the necessary requirements arising from their proposed development | ++ | ++ | ++ | + | ++ | + | 0 | + | 0 | 0 | 0 | ++ | + | 0 | + |
| Policy 2.1.3 The design of parking (see also policy theme 19) | ++ | ++ | + | + | ++ | + | 0 | + | 0 | 0 | 0 | ++ | + | 0 | + |
| Policy Theme 2.2: Expanding Labour Markets | | | | | | | | | | | | | | | |
| Policy 2.2.1 Support measures to reduce peak demand on the highway network | ++ | + | + | + | ++ | ? / - | ? / - | ? / - | ? / - | ? / - | ? / - | ++ | ++ | ? / - | + |
| Policy 2.2.2 Improve the accessibility and connectivity of our public transport links to expand our labour market catchments | ++ | + | +++ | +++ | ++ | ? / - - | ? / - - | ? / - - | ? / - | ? / - | ? / - | +++ | +++ | ? / - | - / + |
| Policy 2.2.3 Invest in our highway network to improve accessibility | - / + | - / + | ++ | +++ | - / ++ | ? / - - | ? / - | ? / - - | ? / - | ? / - | ? / - | - / + | - / + | ? / - | - / + |

**Summary**

Policy Theme 2.1 promotes the sustainable connectivity to and within developments. Policy 2.1.1 aims to reduce the need to travel, particularly for long distances, which is likely to have benefits for health, the safety of the transport network, accessibility, reduced congestion, air quality and GHG emissions. It also aims to improve accessibility for those with mobility issues which is likely to have benefits on the health of these transport users. Policies 2.1.2 aims to mitigate residual cumulative impacts on any element of the transportation network including highway safety and Policy 2.1.3 aims to ensure parking design is safe for all road users and ensure proximity of spaces for Blue Badge holders in relation to key services, therefore direct positive effects are anticipated for the health and safety of the road network. Policy 2.1.3 also aims to provide opportunities for safe walking and cycling which will likely benefit health of the local community and well as improve road safety. Electric and low-emission vehicles are also promoted through Policy 2.1.2 and 2.1.3. There is also potential for indirect effects on biodiversity as a result of all three policies given they have the potential to reduce the number of cars on the road. There are unlikely to be any effects on the historic environment, soils, the water environment, flood risk and climate resilience from any of the policies.

Policy Theme 2.2 promotes highway improvements and accessibility, and improved connectivity of public transport to expand labour market areas. Policies 2.2.2 and 2.2.3 have the potential to significantly increase accessibility within the region and also provide additional links to a wider area. This is likely to have benefits for the economy, making the region more attractive for business as well as providing new opportunities for employment and driving growth through improved public transport and road access. Health benefits may also occur from improved accessibility. The policies are also likely to result in air quality improvement and reductions in GHG emissions through reduce congestions and the promotion of public transport. There is potential for the policies to have negative effects on biodiversity, the historic environment, the landscape and townscape, the water environment and flooding given they include proposals to construct new transport infrastructure. Effects will depend on the location, design, and mitigation for projects. The road capacity improvement project as part of Policy 2.2.3 may result in mixed effects as there is potential for congestion to be reduced, however they may attract additional vehicles.

### 6.2.3 Objective 3: Ensure all of our region's businesses and tourist attractions are connected sustainably to our main transport hubs, ports and airports

**Table 13: Policy Assessment Summary – Objective 3 Policies**

| | SEA Objectives | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LTP policy | Health | Safety | Accessibility | Economy | Sustainable Transport | Biodiversity / Geodiversity | Historic Environment | Landscape | Soils | Water | Flood risk | Air Quality | GHG emissions | Climate resilience | Reuse of Infrastructure |
| Policy Theme 3.1: Accessing Ports and Airports | | | | | | | | | | | | | | | |
| Policy 3.1.1 Support improvements to our transport infrastructure to enable efficient access for freight travelling to Felixstowe and Harwich, particularly by rail | + | + | 0 | +++ | ++ | ? / - - | ? / - | ? / - | ? / - | ? / - | ? / - | ++ | ++ | ? / - | ++ |
| Policy 3.1.2 Support improved road and rail connectivity to nearby airports, in particular at Stansted | + | + | ++ | +++ | ++ | ? / - - | ? / - | ? / - | ? / - | ? / - | ? / - | ++ | ++ | ? / - | ++ |
| Policy 3.1.3 Support the region's visitor economy through efficient passenger connectivity at Harwich | 0 | 0 | ++ | +++ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ++ |
| Policy 3.1.4 Work in partnership with port and airport operators to encourage sustainable commuting patterns to their sites for workers commuting from within the Combined Authority | + | + | ++ | + | ++ | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | ++ |
| Policy Theme 3.2: Supporting the Local Visitor Economy | | | | | | | | | | | | | | | |
| Policy 3.2.1 Improving connectivity to international gateways and larger centres | + | + | ++ | +++ | + | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | + |
| Policy 3.2.2 Delivering an integrated transport network navigable by passenger who are visiting the region for the first time | + | + | + | + | + | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | + |
| Policy 3.2.3 Delivering sustainable transport connectivity to tourist destinations in rural areas | + | + | ++ | +++ | + | 0 | 0 | ? | ? | 0 | 0 | + | + | 0 | + |
| Policy 3.2.4 Providing sufficient space and appropriate infrastructure for coach services to manage the impacts of day visitors on our highway and parking infrastructure | + | + | + | ++ | + | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | + |
| Policy Theme 3.3: Supporting Business Clusters | | | | | | | | | | | | | | | |
| Policy 3.3.1 Invest in our rail and highway networks to allow our firms, organisations and workers to trade and travel easily across the country and abroad | - / + | + | +++ | +++ | - / ++ | ? / - - | ? / - | ? / - | ? / - | ? / - | ? / - | - / + | - / + | 0 | + |
| Policy 3.3.2 Improve local connectivity to bring firms and organisations in our towns and cities closer together | + | + | +++ | +++ | ++ | ? | ? | ? | ? | ? | ? | ++ | ++ | 0 | + |

| LTP policy | SEA Objectives: Health | Safety | Accessibility | Economy | Sustainable Transport | Biodiversity / Geodiversity | Historic Environment | Landscape | Soils | Water | Flood risk | Air Quality | GHG emissions | Climate resilience | Reuse of Infrastructure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Policy Theme 3.4: Freight | | | | | | | | | | | | | | | |
| Policy 3.4.1 Promoting rail freight | + | + | 0 | ++ | ++ | + | 0 | 0 | 0 | 0 | 0 | ++ | ++ | 0 | + |
| Policy 3.4.2 Promoting and enforcing appropriate Heavy Commercial Vehicle routing | + | + | 0 | + | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Policy 3.4.3 Promoting sustainable urban freight distribution | + | 0 | 0 | + | + | + | 0 | 0 | 0 | 0 | 0 | ++ | + | 0 | 0 |
| Policy 3.4.4 Improving road freight facilities | + | ++ | 0 | + | 0 | + | 0 | 0 | 0 | 0 | ? | + | + | 0 | 0 |
| Policy 3.4.5 Supporting efficient air freight and the aviation sector | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |

**Summary**

Policy Theme 3.1 supports improvements to road and rail connections to and from the ports at Felixstowe and Harwich and nearby airports such as Stansted to increase accessibility and the efficiency of the transport for freight, business travel, visitors, and port and airport employees. All four policies have the potentially to contribute to economic growth in the area, particularly Policies 3.1.1, 3.1.2 and 3.1.3. Accessibility within the region and also to other areas within the country as well as international destinations will be improved as a result of these policies. This will likely lead to benefits for the local economy with Policies 3.1.1, 3.1.2 and 3.1.3 particularly contributing to this. Policies 3.1.1, 3.1.2 and 3.1.4 also have the potential to improve air quality and reduce GHG emissions which could also result in health benefits. Given that Policy 3.1.1 and 3.1.2 includes measures to upgrade both rail and road infrastructure there is potential for negative effects on biodiversity, the historic environment, landscape, soils, the water environment and flooding. Effects will depend on the location, design, and mitigation for projects.

Policy Theme 3.2 supports the visitor economy by improving accessibility, connectivity and integration of the transport network for visitors to the region. The four policies aim to improve the public transport network, especially for tourists, making it more attractive and easier to use and therefore potentially leading to a reduction in the use of private cars/hire cars. This would have benefits for air quality and health, GHG emissions reduction, congestion, and road health and safety. The policies will increase the connectivity and accessibility of the region's public transport to key entry points and rural tourist destinations. This will make access easier for visitors but will also have benefits for residents when having days out, going on holiday, or travelling for business. This will contribute to economic growth, especially through the tourism industry and may also have benefits for business travel connectivity. The policies have the potential to result in indirect benefits for biodiversity and the historic environment due to a reduction in car use and increased access leading to increased visitor numbers which could have benefits for the maintenance, protection and public awareness of these areas. However, demands of tourism, for example visitors to designated sites, will need to be balanced with ecological/heritage protection to avoid damage to these areas.

Policy Theme 3.3 aims to improve highway and public transport provision for businesses to encourage investment and easy trade and travel between areas and abroad. The policies are likely to increase accessibility through improvements to the road network alongside upgrades to public and active transport infrastructure. Economic benefits are also likely through improved links with the wider network and Policy 3.3.2 aims to connect business cluster areas with active and sustainable modes of transport. There is also likely to be improvements to air quality as a result of the policies reducing congestion and potentially reducing the number of journeys made by vehicles. However, the road projects within Policy 3.3.1 also have the potential to increase vehicle numbers through capacity improvements therefore mixed effects have been identified. The potential for negative effects have been identified for biodiversity, historic environment, water environment, landscape and townscape, soils and flooding due to new infrastructure and upgrade works. Effects will depend on the location, design, and mitigation for projects.

Policy Theme 3.4 promotes sustainable freight movements. There is potential for Policies 3.4.1, 3.4.2, 3.4.3 and 3.4.4 to have benefits on health given that they will potentially improve air quality. Policy 3.4.1 and 3.4.3 in particular will result in improvements in air quality through reduce goods vehicles on the road, making the freight network in the region more sustainable and through the introduction of a Low Emission Zone. There is likely to be positive effects on the economy as the transport network will be more efficient as a result of all the policies due to the importance of freight to the local economy. Policies 3.4.1, 3.4.2 and 3.4.3 also have the potential to reduce congestion on the road network. Indirect positive effects for biodiversity may occur as a result of a reduction in goods vehicles on the road as well as through the promote of electric vehicles as a result of Policies 3.4.1, 3.4.2 and 3.4.3.

### 6.2.4 Objective 4: Build a transport network that is resilient and adaptive to human and environmental disruption, improving journey time reliability

**Table 14: Policy Assessment Summary – Objective 4 Policies**

| | SEA Objectives | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LTP policy | Health | Safety | Accessibility | Economy | Sustainable Transport | Biodiversity / Geodiversity | Historic Environment | Landscape | Soils | Water | Flood risk | Air Quality | GHG emissions | Climate resilience | Reuse of Infrastructure |
| Policy Theme 4.1: Building a resilient and adaptive transport network to climate change | | | | | | | | | | | | | | | |
| Policy 4.1.1 Managing the risks to the transport network presented by climate change | + | + | ++ | ++ | 0 | + | 0 | 0 | 0 | 0 | +++ | + | + | +++ | ++ |
| Policy 4.1.2 Sustainable road network maintenance | + | + | ++ | ++ | 0 | 0 | 0 | 0 | 0 | + | ++ | ++ | ++ | +++ | ++ |
| Policy 4.1.3 Utilising proven technologies as they become available to help the transport network adapt to the challenges presented by climate change | + | + | + | ++ | 0 | 0 | 0 | 0 | 0 | 0 | ++ | + | + | +++ | ++ |
| Policy Theme 4.2: Maintaining and Managing the Transport Network | | | | | | | | | | | | | | | |

| LTP policy | SEA Objectives: Health | Safety | Accessibility | Economy | Sustainable Transport | Biodiversity / Geodiversity | Historic Environment | Landscape | Soils | Water | Flood risk | Air Quality | GHG emissions | Climate resilience | Reuse of Infrastructure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.2.1 Investigating the feasibility of harmonising highways and transport asset maintenance standards and performance indicators | + | ++ | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | +++ |
| 4.2.2 Supporting highways authorities in minimising the whole life costs of the highway | + | + | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | + | ++ | + | ++ | +++ |
| 4.2.3 Addressing the challenges of climate change and enhancing our communities and environment | + | + | + | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | ++ | ++ | +++ |

**Summary**

Policy Theme 4.1 aims to ensure the transport network is resilient and adaptive to climate change effects. The policies are likely to reduce the vulnerability of the transport network to climate change and increase accessibility by preventing travel disruption and severance. By building resilience into the network, the lifespan of the transport infrastructure is likely to be increased and the health and safety of the network is also likely to be improved. This will have benefits for health, access and the economy. All three policies are likely to have positive effects on air quality and minimising GHG emissions as they aim to increase the resilience of the transport network, reducing the need for maintenance and new transport infrastructure. Policy 4.1.2 aims to encourage sustainable and adaptative design principles which includes the consideration of air quality into the design of the road schemes. It also aims to promote the use of sustainable materials with less environmental impacts in terms of their lifecycle. All three policies will have positive effects on flooding, but Policy 4.1.1 is likely to be more significant as it seeks to ensure changes or improvements to one section of the transport infrastructure does not exacerbate flood effects elsewhere.

Policy Theme 4.2 aims to improve highway maintenance and use of materials. Selecting design and materials with low emissions and careful timing of maintenance activities will reduce congestion associated with roadworks, which may have positive effects for health from reduce emissions from idling vehicles and reduced driver stress. All three policies will have major positive effects on the use and lifespan of existing transport infrastructure by prioritising maintenance setup, development of KPIs (Policy 4.2.1); standardisation of materials, sustainable and adaptive design principles (Policy 4.2.2); and actively considering climate change adaptation (Policy 4.2.3). Vulnerability to climate change is expected to be reduced through sustainable and adaptive design measures that consider climate change under Policy 4.2.2. Asset management that actively considers highways or other assets that are susceptible to climate change with maintenance regimes adapted for them under Policy 4.2.3 will have benefits for asset resilience. Policy 4.2.1 is likely to improve road safety and reduce accidents through improved maintenance of highways which should help maintain their good condition. The installation of smart methods of infrastructure monitoring under Policy 4.2.2 will contribute indirectly to road safety through automating alerts. Coordination of roadworks and implementation of safe design measures under Policy 4.2.3 will minimise disruption on the network and improve safety.

### 6.2.5 Objective 5: Embed a safe systems approach into all planning and transport operations to achieve Vision Zero – zero fatalities or serious injuries

**Table 15: Policy Assessment Summary – Objective 5 Policies**

| LTP policy | SEA Objectives: Health | Safety | Accessibility | Economy | Sustainable Transport | Biodiversity / Geodiversity | Historic Environment | Landscape | Soils | Water | Flood risk | Air Quality | GHG emissions | Climate resilience | Reuse of Infrastructure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Policy Theme 5.1: Safety for all – a Safe Systems Approach | | | | | | | | | | | | | | | |
| Policy 5.1.1 A multi-agency approach to improving road safety | ++ | +++ | + | + | + | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |
| Policy 5.1.2 Continuous and comprehensive monitoring and evaluation of key road safety indicators | ++ | +++ | + | + | + | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |
| Policy 5.1.3 Support improvement in road user behaviour through education, training and publicity programmes | ++ | +++ | + | + | + | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |
| Policy 5.1.4 Adoption of the Safe System Approach into the mainstream of highway engineering | ++ | +++ | + | + | + | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |
| Policy Theme 5.2: Ensuring Transport Security | | | | | | | | | | | | | | | |
| Policy 5.2.1 Addressing personal safety and security issues | ++ | +++ | ++ | ++ | ++ | - | 0 | 0 | 0 | 0 | 0 | + | + | 0 | + |
| Policy 5.2.2 Improving the security of public transport stops, stations and hubs | ++ | +++ | ++ | ++ | + | + | 0 | 0 | 0 | 0 | 0 | + | + | 0 | + |

**Summary**

Policy Theme 5.1 aims to improve the safety of the transport network. Moderate positive effects on health of the population is expected from the prevention and minimisation of injuries and death from road accidents through the promotion of road safety (Policy 5.1.1 and 5.1.3), monitoring (Policy 5.1.2) and review of road designs to conform with Safe System principles, such as speed limits (Policy 5.1.4). Major positive effects are expected on the safety of the transport network with collaboration between agencies and public service providers (Policy 5.1.1) to deliver a holistic road safety partnership. Both Policies 5.1.2 and 5.1.4 will involve the review, evaluation and monitoring of road safety with risk mapping leading to safety intervention, all of which are expected to improve safety of the transport network and thereby reducing accidents. Road safety courses and publicity campaigns (Policy 5.1.3) will have benefits through improved road user's behaviour leading to reduced accidents. There is likely to be minor positive effects on the support and contribution to local economic growth via increased road safety, reduced road accidents which may cause congestions (Policy 5.1.1, 5.1.2 and 5.1.4), thus improving efficiency of transport networks. Improved road user behaviour from education (Policy 5.1.3) may also

decrease the likelihood of accidents. All policies are expected to have an indirect minor positive effect on local air quality from the potential reduction of road accidents which cause congestions and idling emissions.

Policy Theme 5.2 aims to address personal safety and security issues on the transport network to make it more attractive and safer for users. Both policies address crime and fear of crime around transport which may improve accessibility, promote public transport use and contribute to reducing congestion. These policies could have the potential to have a major effect on people's willingness to travel and their ability to access jobs and key services. Personal security is important in enabling people to feel comfortable about walking, cycling, and using public transport, taxis and private hire vehicles. Policy 5.2.1 addresses evening, night time and early morning safety issues reducing fear of crime around transport. It also aims to target security enhancements through CCTV cameras at crime 'hotspots'. Policy 5.2.2. aims to work with public transport operators, police, community safety partnerships and passenger and user groups to tackle crime and anti-social behaviour at stops and stations particularly for vulnerable groups. These policies can therefore improve accessibility, promote public transport use and contribute to reducing congestion but can also benefit the local economy, especially the night-time economy, by helping people to make the journeys they want, when they want. There are also moderate positive health effects created from making cycling and walking safer for all, which both policies aim to achieve. A shift to public transport use and sustainable modes of transport could mean a potential reduction in private car use, which could have benefits for local air quality and GHG emissions. Policy 5.2.1 could have a minor negative impact on biodiversity through managing vegetation if managed poorly, but it would allow for fewer hiding locations.

### 6.2.6 Objective 6: Promote social inclusion through the provision of a sustainable transport network that is affordable and accessible for all

**Table 16: Policy Assessment Summary – Objective 6 Policies**

| | SEA Objectives | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LTP policy | Health | Safety | Accessibility | Economy | Sustainable Transport | Biodiversity / Geodiversity | Historic Environment | Landscape | Soils | Water | Flood risk | Air Quality | GHG emissions | Climate resilience | Reuse of Infrastructure |
| Policy Theme 6.1: Transport Accessibility for All | | | | | | | | | | | | | | | |
| Policy 6.1.1 Supporting and promoting demand-responsive community transport services | +++ | 0 | +++ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Policy 6.1.2 Facilitating access to education and wider mobility for vulnerable children | ++ | 0 | +++ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Policy 6.1.3 Improving the accessibility of transport infrastructure | +++ | 0 | +++ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Policy 6.1.4 Promoting the provision of accessible transport information | +++ | 0 | +++ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| LTP policy | Health | Safety | Accessibility | Economy | Sustainable Transport | Biodiversity / Geodiversity | Historic Environment | Landscape | Soils | Water | Flood risk | Air Quality | GHG emissions | Climate resilience | Reuse of Infrastructure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SEA Objectives | | | | | | | | | | | | | | |
| Policy 6.1.5 Optimise the use of new technologies in improving the accessibility | +++ | 0 | +++ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Policy Theme 6.2: Transport Pricing and Affordability | | | | | | | | | | | | | | | |
| Policy 6.2.1: Improve our public transport to provide an affordable alternative to the car | + | 0 | +++ | +++ | +++ | 0 | 0 | 0 | 0 | 0 | 0 | ++ | ++ | 0 | 0 |
| Policy 6.2.2: Improve the affordability of travelling by bus and rail | + | 0 | +++ | + | +++ | 0 | 0 | 0 | 0 | 0 | 0 | ++ | ++ | 0 | 0 |
| Policy Theme 6.3: Access to Education and Key Services | | | | | | | | | | | | | | | |
| Policy 6.3.1 Access to Education | + | + | ++ | + | ++ | + | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |
| Policy 6.3.2 Access to non-emergency healthcare and other key services | ++ | 0 | ++ | + | ++ | + | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |
| Policy 6.3.3 Digital inclusion | + | 0 | + | 0 | + | + | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |
| Policy Theme 6.4: The Future of Mobility | | | | | | | | | | | | | | | |
| Policy 6.4.1 Promote and support research, innovation and engagement work undertaken by Smart Cambridge | + | + | + | + | + | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |
| Policy 6.4.2 Provide the infrastructure which will enable the uptake and optimisation of new transport and digital connectivity technologies | + | + | + | + | + | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |
| Policy 6.4.3 Guiding the development of a regulatory framework under which new transport technology providers operate | + | + | ++ | + | + | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |

**Summary**

Policy Theme 6.1 aims to increase the accessibility of the transport network for all including mobility impaired and vulnerable groups. All the policies will have positive effects on improving accessibility to key services, employment and recreational areas through increasing accessibility for all particularly vulnerable groups who may face barriers to accessing facilities, this will also help improve people's health and wellbeing. Policy 6.1.1 supports community transport which will help fill the gaps in public transport provision. This will particularly help rural communities and the elderly. Policy 6.1.2 aims to improve access to educational facilities for vulnerable children. Policy 6.1.3 aims to ensure transport and movement is accessible for all including vulnerable groups and mobility impaired persons and particularly looks at improving links to hospitals and health care facilities. Policy 6.1.4 aims to increase provision of accessible transport information, so that more people and groups are aware of the services they can use. Policy 6.1.5 aims to ensure certain groups are not accidently 'designed out' of being able to access transport and that accessibility, social inclusion and quality of life is improved for all.

Policy Theme 6.2 aims to ensure fair pricing on the transport network to ensure public transport is an affordable alternative to the car. The policies will improve provision of public transport and will for example make it easier for shift workers to use public transport. Improving the affordability of public transport will help reduce inequalities in certain areas as there will be better access to public transport for deprived communities. These policies are likely to benefit the health and wellbeing of communities. A major positive effect on accessibility is expected from improved services and lower travel costs. Collaboration with and financial support to public transport operators will improve overall service, increasing the reliability and efficiency and the network, contributing the movement of people and the local economy. Policy 6.2.2 will make use of public transport a more affordable option to commute to and from work and may increase access to employment areas. Improved affordability of public transport may potentially reduce the number of car trips required, reducing the amount of vehicular emission, having a positive effect on air quality and GHG emissions reduction.

Policy Theme 6.3 aims to increase access to education and key services through sustainable transport modes. Education can be linked to health therefore improving access to education (Policy 6.3.1) for those in need is likely to result in minor positive effects for the health of these individuals and potentially reduce health inequalities. The policy also aims to encourage active and sustainable modes of transport which can improve health. There is potential for moderate positive effects through Policy 6.3.2 as it is likely to increase inclusion in access to key services, including healthcare, which will likely improve health and reduce inequalities, particularly in rural areas. Digital inclusion through online services (Policy 6.3.3) is also likely to improve health and reduce inequalities as more people will be able to access information and potentially make healthier choices. Policy 6.3.1 has the potential to improve the health and safety of the transport network by supporting Bikeability cycle training for students which could lead to safer cycle travel. There is potential for indirect benefits for the economy through Policy 6.3.1 and Policy 6.3.2 as improving access to education opportunities could increase the labour market. In addition, if there are health improvements through increased access to healthcare, there are also potential benefits for the labour market. Policy 6.3.1 aims to promote sustainable and active methods of travel for students, parents and employees accessing education sites which could reduce congestion. It is likely that Policy 6.3.1 and 6.3.2 will deliver increased access to education, healthcare and other key services through the public transport network. There is also potential for congestion to be reduced through Policy 6.3.2 as it aims to support measures such as car share and cycle buddy networks which promote inclusion. Increasing digital inclusivity (Policy 6.3.3), has the potential to reduce the need for travel as individuals may be able to access key information online rather than travelling.

Policy Theme 6.4 promotes new technologies which may improve future mobility. All the policies promote new transport technologies. These are likely to promote sustainable low and zero forms of transport and smart technologies to reduce congestion and the need to travel. Therefore, long-term positive effects are likely for health and air quality due to reduced emissions associated with transport and indirect benefits for the economy. Policy 6.4.3 specifically mentions promoting the benefits of new transport technology to improve the connectivity of rural and less well-connected urban communities, therefore, benefiting accessibility.

### 6.2.7 Objective 7: Provide 'healthy streets' and high-quality public realm that puts people first and promotes active lifestyles

**Table 17: Policy Assessment Summary – Objective 7 Policies**

| | SEA Objectives | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LTP policy | Health | Safety | Accessibility | Economy | Sustainable Transport | Biodiversity / Geodiversity | Historic Environment | Landscape | Soils | Water | Flood risk | Air Quality | GHG emissions | Climate resilience | Reuse of Infrastructure |
| Policy Theme 7.1: Public Rights of Way and Waterways | | | | | | | | | | | | | | | |
| Policy 7.1.1 Align policies for Public Rights of Way across Cambridgeshire and Peterborough | + | 0 | + | 0 | + | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0Policy 7.1.2 Improve access to the green spaces for all | ++ | 0 | ++ | 0 | + | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Policy 7.1.3 Develop a network which is safe and encourages healthy activities | ++ | + | + | 0 | + | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Policy 7.1.4 Ensure new development is integrated into the Public Rights of Way network without damaging the countryside | ++ | 0 | ++ | 0 | + | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Policy 7.1.5 Ensure high quality, definitive information, maps and records are available on the network | + | 0 | + | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Policy 7.1.6 Ensure the network is complete to meet the needs of today's users and land managers | + | 0 | + | 0 | + | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Policy 7.1.7 Support better land and waterway management | ++ | + | + | 0 | + | + | + | + | + | 0 | + | 0 | 0 | 0 | 0 |
| Policy Theme 7.2: Promote and Raise Awareness of Sustainable Transport Options | | | | | | | | | | | | | | | |
| Policy 7.2.1 Support travel plan development and implementation of travel plan measures within workplaces to ensure healthy, safe, low carbon travel options for commuters are actively encouraged and supported | ++ | 0 | + | 0 | ++ | + | 0 | 0 | 0 | 0 | 0 | ++ | ++ | 0 | + |
| Policy 7.2.2 Ensure the adoption and enforcement of local travel plan guidance, for new planning applications | + | 0 | + | 0 | ++ | + | 0 | 0 | 0 | 0 | 0 | ++ | ++ | 0 | + |
| Policy 7.2.3 Promote existing and new walking and cycling routes to commuters and residents | ++ | 0 | + | 0 | +++ | + | 0 | 0 | 0 | 0 | 0 | +++ | +++ | 0 | + |
| Policy 7.2.4 Continue to promote cycle training in schools and for adults | ++ | + | + | 0 | +++ | + | 0 | 0 | 0 | 0 | 0 | ++ | ++ | 0 | + |
| Policy 7.2.5 Improve availability, type and quality of information on sustainable modes ensuring health and air quality benefits are emphasised | ++ | 0 | + | 0 | +++ | + | 0 | 0 | 0 | 0 | 0 | +++ | +++ | 0 | + |
| Policy Theme 7.3: Supporting and Promoting Health and Wellbeing | | | | | | | | | | | | | | | |

| LTP policy | SEA Objectives: Health | Safety | Accessibility | Economy | Sustainable Transport | Biodiversity / Geodiversity | Historic Environment | Landscape | Soils | Water | Flood risk | Air Quality | GHG emissions | Climate resilience | Reuse of Infrastructure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Policy 7.3.1 Reducing physical inactivity through active travel infrastructure, education, training and promotion | +++ | ++ | +++ | ++ | +++ | + | 0 | + | 0 | 0 | 0 | ++ | ++ | 0 | 0 |
| Policy 7.3.2: Reducing air pollution through supporting zero and low emissions transport options and developing green infrastructure | ++ | 0 | 0 | + | +++ | + | 0 | + | 0 | 0 | 0 | +++ | +++ | 0 | 0 |
| Policy 7.3.3: Improving street scene / public realm to improve safety | + | ++ | 0 | 0 | 0 | + | ++ | ++ | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Policy 7.3.4: Increasing ability to access health care and leisure facilities / amenities | ++ | 0 | +++ | + | + | + | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |
| Policy 7.3.5: Increasing ability to access to wider opportunities - employment, social activities | + | ++ | +++ | +++ | + | + | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |

**Summary**

Policy Theme 7.1 aims to improve access to rights of way and connectivity to the countryside. Overall, all policies directly provide benefits to the health and wellbeing of the population by improving access to and quality of green space, paths for walking and cycling, and encouraging healthy activities along the rights of way network. While most of the recorded benefits of the policies are minor, on a holistic level the policies will provide significant improvements to health and wellbeing of local people, as well as townscape character through perceived 'pride' or 'opinion'. There is likely to be minor positive effects on the biodiversity, heritage, and flood risk as a result of Policy 7.1.7. It aims to both improve waterways to ensure they are more attractive for leisure activities and also includes provisions to consider the need for flood protection, conservation and heritage.

Policy Theme 7.2 aims to promote and raise awareness of sustainable transport options. All the policies aim to encourage use of sustainable travel modes, particularly walking and cycling which are active forms of travel and will have health benefits. If modal shift occurs, then there could be benefit for reduce congestion, GHG emissions, and air quality benefits which would have positive effects for health. Policy 7.2.4 promotes cycle training for children and adults. This may improve the confidence and competence of cyclists on the road, resulting in a safer road environment. Accessibility may be improved through the promotion of car share and bike loan schemes in Policy 7.2.1. Travel Plan guidance and provision of infrastructure as part of new developments will also assist and improve accessibility to a certain extent. Promotion and provision of walking and cycle routes, and training is expected to increase awareness and access to sustainable modes of transport.

Policy Theme 7.3 aims to support health and wellbeing through encouraging active travel, reducing air pollution and increasing accessibility to health, leisure, employment and social activities and facilities. All five of the policies are likely to have positive effects on improving the health of the population. Policy 7.3.1 aims to give walking and cycling the highest priority when developing streets and roads, promote healthy lifestyles for all demographics and

ensure cycle and footpaths are comprehensive. This promotion of active modes of transport will therefore likely have positive health effects. Policy 7.3.2 aims to reduce air pollution, Policy 7.3.4 aims to improve access to healthcare. These all have the potential for moderate positive effects on health and wellbeing. Policy 7.3.1 aims to ensure walking and cycle routes are safe for all and Policy 7.3.3 aims to promote a safe systems approach and deliver transport security through policies. These are likely to improve the safety of the transport network. Policy 7.3.5 also aims to promote a safe network for all. Policy 7.3.5 is likely to have positive effects for the local economy as it aims to increase the affordability and accessibility to employment. Policy 7.3.1 is also likely to contribute to economic growth as residential areas will be more connected to walking and cycling routes as well as to public transport meaning they can potentially access employment easier. Increasing access to health care (Policy 7.3.4) may also indirectly benefit the economy. Policy 7.3.2 may support transition to a low carbon economy. Policy 7.3.2 aims to reduce air pollution through promoting the use of low emission vehicles which is likely to have major benefits for air quality. Policy 7.3.1 also aims to promote active and sustainable modes of transport which is likely to improve air quality. Policy 7.3.4 and 7.3.5 may also improve air quality if improvements to accessibly is achieved through public transport. There is likely to be benefits for the historic environment and townscape as a result of public realm and streetscape improvements.

### 6.2.8 Objective 8: Ensure transport initiatives improve air quality across the region to exceed good practice standards

**Table 18: Policy Assessment Summary – Objective 8 Policies**

| | SEA Objectives | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LTP policy | Health | Safety | Accessibility | Economy | Sustainable Transport | Biodiversity / Geodiversity | Historic Environment | Landscape | Soils | Water | Flood risk | Air Quality | GHG emissions | Climate resilience | Reuse of Infrastructure |
| Policy Theme 8.1: Air Quality | | | | | | | | | | | | | | | |
| Policy 8.1.1 Reducing vehicle emissions | +++ | 0 | 0 | ++ | +++ | + | 0 | 0 | 0 | 0 | 0 | +++ | +++ | 0 | + |
| Policy 8.1.2 Keeping emissions low in the future | +++ | 0 | 0 | ++ | ++ | + | 0 | 0 | 0 | 0 | 0 | +++ | +++ | 0 | 0 |
| Policy 8.1.3 Improving public health | +++ | 0 | + | ++ | + | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |

**Summary**

Policy Theme 8.1 aims to improve air quality through the reduction of transport related emissions. Policy 8.1.1 and 8.1.2 are expected to improve and enhance the local air quality, particularly in the AQMAs. Policy 8.1.1 aims to encourage low emission and sustainable modes of transport (such as low emission taxis, cycle delivery and 'click and collect' facilities away from town centres) through developing licensing conditions, pricing mechanisms and incentivised schemes reducing the impacts within AQMAs. The policy is also investigating the potential for a Clean Air Zone in Cambridge city centre, one of the seven traffic related AQMAs within the Combined Authority Area. Policy 8.1.2 aims to protect and improve the local air quality through monitoring and planning policy improvements. Monitoring of the current air quality at key locations, developing and implementing more effective Air Quality Action Plans are key aims of this policy. Policy 8.1.3 supports sustainable transport modes which may help reduce air pollution from transport.

Improvements to air quality resulting from these policies will have positive effects on the health of local residents. Policy 8.1.2 is also expected to improve the health of the population by developing new air quality/planning policies in the area's Air Quality Action Plans such as Health Impact Assessments at the pre-application stage for major developments. The policy also aims to provide public information campaigns about the health impacts of air pollution and monitor air quality at key locations to develop and implement effective Air Quality Action Plans. Policy 8.1.3 aims to improve public health through information campaigns and supporting sustainable transport modes. Policy 8.1.1 would have a positive effect on congestion and the economy by creating 'click and collect' hubs at Park & Rides sites which would reduce the requirement for private use cars to enter town centres and investigating 'last mile' deliveries using electric car/taxi and/or bikes. Policy 8.1.3 will help ensure a healthy workforce, contributing to the local economy.

### 6.2.9 Objective 9: Deliver a transport network that protects and enhances our natural, historic and built environments

**Table 19: Policy Assessment Summary – Objective 9 Policies**

| LTP policy | SEA Objectives: Health | Safety | Accessibility | Economy | Sustainable Transport | Biodiversity / Geodiversity | Historic Environment | Landscape | Soils | Water | Flood risk | Air Quality | GHG emissions | Climate resilience | Reuse of Infrastructure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Policy Theme 9.1: Protecting the Natural Environment | | | | | | | | | | | | | | | |
| Policy 9.1.1 Protection and enhancement of the natural environment | ++ | + | ++ | ++ | +++ | +++ | + | + | +++ | +++ | +++ | ++ | ++ | + | + |
| Policy 9.1.2 Improving sustainable access to the natural environment | ++ | + | +++ | ++ | +++ | ++ | 0 | + | + | 0 | 0 | ++ | ++ | + | + |
| Policy 9.1.3 Delivering green infrastructure | ++ | ++ | +++ | ++ | +++ | ++ | 0 | + | + | 0 | ++ | ++ | ++ | + | + |
| Policy Theme 9.2: Enhancing our built environments and protecting our historic environments | | | | | | | | | | | | | | | |
| Policy 9.2.1 Support to enhance our built environment and protect our historic environment | + | + | + | + | ++ | 0 | +++ | ++ | 0 | + | + | + | + | ++ | ++ |

**Summary**

Policy Theme 9.1 aims to protect and enhance, and improve access to, the natural environment by sustainable modes. The policies will have positive effects for protection and enhancement of the natural environment including biodiversity and geodiversity, landscape, soils and the water environment. Policy 9.1.1 in particular will help ensure that transport infrastructure does not cause negative environmental effects and that opportunities for enhancement are maximised. Health and accessibility will also be improved through access to the natural environment by sustainable transport modes. However, increased footfall may affect the tranquillity of the countryside or damage ecological sites, so this will need to be carefully managed. The policies are also likely to have benefits for air quality and GHG reduction through promotion of sustainable non-motorised forms of transport, especially for short journeys.

Policy Theme 9.2 aims to protect and enhance the built and historic environment. The policy is likely to have a major positive effect on the historic environment, designing and developing the built environment in a way that is sympathetic to the local history. The policy also considers the specific challenges relating to the built environment in market towns and recognises and supports innovation and future mobility patterns, which are key for encouraging tourist activity within historic areas such as market towns. The policy is likely to develop a consistent approach to local policy with regard to design which reflects the current and future needs to support the health, social and cultural wellbeing of the community, through improving strategic pedestrian routes and reducing private car usage in the built environment will improve air quality and noise quality benefiting the local residents. The policy recognises the need to consider how the existing built environment needs to be adapted for, and new development needs to consider, the impacts of climate change. It aims to use the existing infrastructure, but to also future-proof it for future generations. Enhancements will have to remain sympathetic to the local historic character, however the policy supports and recognises innovation and future mobility patterns.

### 6.2.10 Objective 10: Reduce emissions to as close to zero as possible to minimise the impact of transport and travel on climate change

**Table 20: Policy Assessment Summary – Objective 10 Policies**

| | SEA Objectives | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LTP policy | Health | Safety | Accessibility | Economy | Sustainable Transport | Biodiversity / Geodiversity | Historic Environment | Landscape | Soils | Water | Flood risk | Air Quality | GHG emissions | Climate resilience | Reuse of Infrastructure |
| Policy Theme 10.1: Reducing the Carbon Emissions from Travel | | | | | | | | | | | | | | | |
| Policy 10.1.1 Utilising new technologies as they become available to minimise the environmental impacts of transport | + | 0 | 0 | + | + | + | 0 | 0 | 0 | 0 | 0 | ++ | ++ | 0 | 0 |
| Policy 10.1.2 Managing and reducing transport emissions | ++ | 0 | 0 | + | + | + | + | + | + | + | 0 | +++ | +++ | 0 | 0 |
| Policy 10.1.3 Encouraging and enabling sustainable alternatives to the private car including reducing the need to travel | ++ | + | ++ | + | +++ | + | 0 | 0 | 0 | 0 | 0 | ++ | ++ | 0 | 0 |

**Summary**

Policy Theme 10.1 aims to reduce carbon emission from travel through utilising new technologies and encouraging and enabling sustainable alternatives to the private car. All the policies encourage a move away from petrol/diesel transport to cleaner more sustainable alternatives which will have positive effects on reducing emissions associated with transport, health, reduced congestion and the economy. Policy 10.1.2 is likely to have major positive effects on air quality and GHG reduction as it is directly about reducing transport emissions from a range of sectors and modes. Policy 10.1.3 specifically encourages sustainable alternatives to the private car including reducing the need to travel which will have benefits for reduced congestion and accessibility, and air quality. Policy 10.1.2 encourages the use of Construction Environmental Management Plans (CEMPs) on major

transport projects. Measures included in the CEMP are likely to reduce effects on the environment during construction works, therefore, providing short-term protection.

### 6.2.11 Modal policies

**Table 21: Policy Assessment Summary – Modal Policies**

| LTP policy | SEA Objectives: Health | Safety | Accessibility | Economy | Sustainable Transport | Biodiversity / Geodiversity | Historic Environment | Landscape | Soils | Water | Flood risk | Air Quality | GHG emissions | Climate resilience | Reuse of Infrastructure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Policy Theme 11: Walking | | | | | | | | | | | | | | | |
| Policy 11.1 Support an increased number of walking trips by establishing safe, interconnected pedestrian connections between key destinations across our cities and towns | +++ | ++ | ++ | + | +++ | + | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |
| Policy Theme 12: Cycling | | | | | | | | | | | | | | | |
| Policy 12.1 Enhance and expand the existing cycle networks in Cambridge and Peterborough and develop or improve cycling links to the surrounding settlements | +++ | +++ | ++ | + | +++ | + | 0 | + | 0 | 0 | 0 | +++ | +++ | 0 | + |
| Policy 12.2: Enhance the cycle network within market towns with high quality links to key destinations and in rural areas provide cycle routes which connect to public transport hubs as well as key destinations such as major employment sites and secondary schools | +++ | +++ | ++ | + | +++ | + | 0 | + | 0 | 0 | 0 | +++ | +++ | 0 | + |
| Policy 12.3: Ensure that cycle parking is secure, conveniently located and meets demand | ++ | + | + | 0 | ++ | + | 0 | + | 0 | 0 | 0 | ++ | ++ | 0 | + |
| Policy 12.4: Ensure that new developments provide a high-quality cycling environment as well as linkages into the existing cycle network and new links to key destinations where needed | +++ | +++ | ++ | + | +++ | + | 0 | + | 0 | 0 | 0 | +++ | +++ | 0 | + |
| Policy 12.5: Promote cycling as a healthy, convenient and environmentally friendly mode of transport to residents, businesses and visitors | +++ | ++ | ++ | ++ | +++ | + | 0 | + | 0 | 0 | 0 | +++ | +++ | 0 | + |
| Policy Theme 13: Delivering a Seamless Public Transport System | | | | | | | | | | | | | | | |
| Policy 13.1 Explore new methods of ticketing to improve the ease and affordability of travel, including across transport modes and operators | ++ | + | ++ | + | + | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |

| LTP policy | SEA Objectives: Health | Safety | Accessibility | Economy | Sustainable Transport | Biodiversity / Geodiversity | Historic Environment | Landscape | Soils | Water | Flood risk | Air Quality | GHG emissions | Climate resilience | Reuse of Infrastructure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Policy 13.2 Improve journey information to maximise the ease of travelling by public transport | + | + | ++ | + | + | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |
| Policy 13.3 Support the delivery of new and improved integrated, multi-modal transport hubs | ++ | + | +++ | ++ | +++ | 0 | 0 | 0 | 0 | 0 | 0 | ++ | ++ | 0 | ++ |
| Policy 13.4 Support additional Park & Ride provision in conjunction with CAM, where fully integrated into local transport networks | ++ | + | +++ | ++ | +++ | ? / - | ? / - | ? / - - | ? / - - | ? / - | ? / - | ++ | ++ | ? / - | 0 |
| Policy Theme 14: Rural Transport Services | | | | | | | | | | | | | | | |
| Policy 14.1: Explore different mechanisms to help deliver a more integrated, coherent rural transport network, in collaboration with operators, local councils, communities and stakeholders | ++ | + | +++ | ++ | ++ | + | 0 | 0 | 0 | 0 | 0 | + | + | 0 | + |
| Policy 14.2: Work with operators to develop a frequent, attractive rural bus network, forming the backbone of the rural public transport network | ++ | + | +++ | ++ | ++ | + | 0 | 0 | 0 | 0 | 0 | + | + | 0 | + |
| Policy 14.3: Support local community transport, fully integrated into the rural public transport network, for communities not served by the bus or rail network | ++ | + | +++ | ++ | ++ | + | 0 | 0 | 0 | 0 | 0 | + | + | 0 | + |
| Policy Theme 15: Improving Public Transport in our Towns and Cities | | | | | | | | | | | | | | | |
| Policy 15.1 Support the continued development of urban bus networks by working in partnership with bus operators and local authorities to improve service quality, reliability and frequency | ++ | + | +++ | +++ | +++ | + | 0 | 0 | 0 | 0 | 0 | ++ | ++ | 0 | + |
| Policy 15.2 Deliver transformational mass transit within our cities to support growth and deliver a step-change in accessibility | ++ | + | +++ | +++ | +++ | ? / - - | ? / - - | ? / - | ? / - | ? / - | ? / - | ++ | ++ | ? / - | 0 |
| Policy 15.3 Support measures to better manage demand for road space following the provision of high-quality public transport infrastructure | ++ | + | + | ++ | +++ | + | 0 | 0 | 0 | 0 | 0 | ++ | ++ | 0 | 0 |
| Policy Theme 16: Travelling by Coach | | | | | | | | | | | | | | | |
| Policy 16.1 Providing sufficient space and appropriate infrastructure for coach services | + | + | ++ | ++ | + | + | 0 | 0 | 0 | 0 | 0 | + / 0 | + / 0 | 0 | + |
| Policy 16.2 Integrating coach services with wider public transport and highway networks | + | 0 | ++ | ++ | + | + | 0 | 0 | 0 | 0 | 0 | + / 0 | + / 0 | 0 | + |
| Policy Theme 17: Travelling by Train | | | | | | | | | | | | | | | |

| LTP policy | Health | Safety | Accessibility | Economy | Sustainable Transport | Biodiversity / Geodiversity | Historic Environment | Landscape | Soils | Water | Flood risk | Air Quality | GHG emissions | Climate resilience | Reuse of Infrastructure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SEA Objectives | | | | | | | | | | | | | | |
| Policy 17.1 Support measures to deliver a more reliable, integrated, passenger-friendly rail network | + | + | +++ | +++ | ++ | + | 0 | 0 | 0 | 0 | 0 | ++ | ++ | 0 | + |
| Policy 17.2 Facilitate improvements to our rail stations to improve the experience of travelling by train | + | + | +++ | + | ++ | + | 0 | 0 | 0 | 0 | 0 | ++ | ++ | 0 | + |
| Policy 17.3 Explore options to expand the rail network to link to new settlements, corridors and growth areas | ++ | + | +++ | +++ | +++ | ? / - - | ? / - | ? / - - | ? / - - | ? / - | ? / - - | +++ | +++ | 0 | + |
| Policy 17.4 Support frequency and journey time enhancements our rural and intercity rail links to improve connectivity and capacity | ++ | + | +++ | +++ | ++ | + | 0 | 0 | 0 | 0 | 0 | ++ | ++ | 0 | + |
| Policy Theme 18: The Local Road Network | | | | | | | | | | | | | | | |
| Policy 18.1 Identifying a Key Road Network | 0 | + | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Policy 18.2 Promoting more efficient use of the existing network | + | + | + | ++ | +++ | + | 0 | 0 | 0 | 0 | 0 | ++ | ++ | 0 | ++ |
| Policy 18.3 Aligning approaches to management and maintenance | 0 | + | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ++ |
| Policy Theme 19: Parking | | | | | | | | | | | | | | | |
| Policy 19.1 The design of parking | + | + | + | + | + | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |
| Policy 19.2 Managing parking demand | + | + | + | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 |
| Policy 19.3 Parking technology and implications of disruptive technology | 0 | 0 | + | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Policy Theme 20: Making Long Distance Journeys by Car | | | | | | | | | | | | | | | |
| Policy 20.1 Improve our highway network to alleviate congestion, improve reliability and enhance our region's accessibility | - / + | ++ | ++ | ++ | - / ++ | ? / - - | ? / - | ? / - | ? / - - | ? / - | ? / - | - / ++ | - / ++ | ? / - | - / + |
| Policy 20.2 Develop new road corridors where required to support development and housing growth | - / + | - / + | ++ | ++ | - / ++ | ? / - - | ? / - | ? / - | ? / - - | ? / - | ? / - | - / + | - / + | ? / - | - / + |
| Policy 20.3 Support improvements on regional and national corridors to improve accessibility to the rest of the UK and abroad | - / + | - / + | ++ | ++ | - / ++ | ? / - - | ? / - | ? / - | ? / - | ? / - | ? / - | - / + | - / + | ? / - | - / + |

## Summary

Policy Theme 11 supports increased numbers of walking trips. The policy aims to promote walking for short distance trips, improve facilities and connectivity for pedestrians, and work with public health teams to encourage walking as a means to prevent and treat related conditions. This is likely to have major positive effects on health. Improved pedestrian links are expected to establish a safer environment for walkers, hence reducing potential

accidents. There is likely to be improved connectivity for walking trips therefore increasing accessibility. Improved pedestrian links which are integrated with infrastructure and developments and improved public realm will likely promote walking as alternative mode of transport. This could potentially reduce the need to travel by car, particularly for short journey, therefore reducing road traffic and congestion and resulting in benefits for air quality and GHG reduction.

Policy Theme 12 promotes enhancement and expansion of cycle facilities to encourage increased cycling. All five policies promote cycling as a viable mode of transport through improvements in infrastructure and facilities. This will likely lead to an increase in cycling activities which has the potential to improve health, increase accessibility and reduce road traffic congestion. Policies 12.1, 12.2 and 12.4 encourage safety through design and cycle segregation. This is likely to help reduce conflicts between cyclists and other road users, increasing safety. Policy 12.3 aims to ensure cycling parking is secure which will help to reduce crime related to bicycle theft. Policy 12.5 promotes cycle training and improved legibility of cycle networks which is likely to contribute to improved road safety. All the policies will likely result in positive effects for air quality and reducing GHG emissions by reducing the need to travel by car. An improvement in cycling infrastructure and the reduction in the number of cars could potentially contribute to enhancing the townscape. All five policies will maximise the use of cycling infrastructure and are likely to have indirect positive effects on biodiversity.

Policy Theme 13 aims to deliver a seamless public transport system through improved ticketing and affordability of travel, improved information for users, and delivery of integrated multi-modal transport hubs. This is likely to have positive effects on health, accessibility, the economy, air quality and reduced congestion as it may facilitate modal shift away from the private car. Policy 13.1 and 13.2 will improve accessibility through easier and more affordable public transport travel. Measures such as integrated ticketing and a clearer pricing structure are likely to improve access for vulnerable groups. Policies 13.3 and 13.4 are likely to have major benefits for accessibility. Measures such as improving major transport hubs, creating small rural hubs close to existing transport corridors, and new park and ride facilities along key highway corridors will help increase accessibility via a range of transport options. Policy 13.4 promotes park and ride sites, depending on the location of these sites there could be negative effects on ecology, heritage and landscape. The site selection process will need to take this into account.

Policy Theme 14 aims to increase the public transport connectivity of rural areas as well as promoting the use of demand-responsive transport (DRT) and pooling services where public transport is not feasible. This is likely to increase accessibility to key services and open up employment opportunities, particularly for those without access to a private car. There is also likely to be economic opportunities for those delivering DRT services or for organisations such as Uber. There is also likely to be a reduction in private car usage due to increase public transport connectivity which is likely to have positive effects on air quality and GHG emissions.

Policy Theme 15 aims to improve public transport in urban areas. All three policies are likely to have major positive effects on reducing road traffic congestion. Policy 15.1 and 15.2 aim to promote public transport as an efficient and reliable alternative to car travel and Policy 15.3 aims to introduce measures to reduce congestion beyond improving the public transport network. There is likely to be increased accessibility as a result of all the policies, however Policy 15.1 and 15.2 will create links to a wider area through both improved and new infrastructure. Economic benefits are also likely, particularly for Policy 15.2 which will connect the city centre of Cambridge to key business destinations around the city. Positive effects on air quality and GHG emissions are also expected for all three policies. Policy 15.2 includes the potential for new infrastructure, which could have potential negative effects for biodiversity and geodiversity, the historic environment, landscape, and soils. However, it will make use of existing busways as well as new

routes, the route selection process is likely to take environmental aspects into account and project level mitigation may be required. Tunnelling under Cambridge as part of the Cambridgeshire Autonomous Metro (CAM) will generate a large amount of excavated material and a strategy should be developed for its reuse.

Policy Theme 16 support travel by coach. The policies have the potential to increase the accessibility of the region as well as key attractions and destinations within the region. This will likely attract more visitors and will have subsequent benefits for the local economy. Policy 16.1 also aims to improve coach services for vulnerable users which could improve the physical and mental well-being of these individuals. There is also potential for positive effects on road congestion, air quality, GHG emissions, biodiversity and the water environment emissions, if the policies result in modal shift from the private car to coaches. However, if this shift is from other public transport modes or from increased numbers of visitors (resulting in more coaches) then effects are likely to be neutral.

Policy Theme 17 promotes rail improvements to increase travel by train. The policies include measures which are likely to promote and improve the experience of using rail services. There is likely to be increased accessibility through improved train frequency, reduced journey times and the introduction of new stations and new railway lines linking growth areas and key centres. This is likely to maximise the use the use of existing infrastructure. The policies are also likely to reduce the use of private car which will have direct positive effects on air quality and GHG emissions, and indirect positive effects on health and biodiversity. Policy 17.3 is likely to have major positive effects for improved accessibility, facilitating economic growth, and encouraging modal shift away from the private car due to the proposed new stations and rail routes. However, this Policy also has potential for negative effects on ecology, historic environment, flood risk, landscape and agricultural land loss depending on the location and project-level mitigation measures for new stations and rail routes.

Policy Theme 18 aims to promote efficient use and maintenance of the local road network. Policy 18.1 and 18.3 are likely to have positive effects on road health and safety as they will encouraged a co-ordinated and prioritised approach to highway maintenance and transport asset management, maintaining roads in a good condition for users. Policy 18.2 is also likely to have positive effects as a shift of freight movement from road to rail will reduce the number of HGVs on the roads which may improve health and safety. It also aims to reduce the need to travel and encourage public transport instead of the private car which may have benefits for health and safety. Policy 18.2 promotes the use of Intelligent Mobility solutions to actively manage traffic and make more efficient use of existing networks and services, as well as promoting new infrastructure and improving the quality of existing infrastructure which will result in improved accessibility to key services. Measures to discourage vehicles such as parking controls will need to ensure they do not adversely affect vulnerable or mobility impaired people who reply on the car or that appropriate alternative transport modes are in place to meet their needs. Policy 18.2 encourages the use of rail freight instead of road freight as well as promoting the use of more sustainable modes of transport through new infrastructure and improving the quality of existing infrastructure, and introducing vehicles controls such as parking restrictions/vehicle charging, which could have a positive effect on air quality and GHG reduction.

Policy Theme 19 aims to ensure appropriate parking standards and facilities. Policy 19.1 and 19.2 aim to increase access through parking for Blue Badge holders in safe, accessible locations close to key services and amenities. The policy also promotes safe, secure parking design for all road users, use of ultra-low emissions vehicles, and use of alternatives modes of transport to the private car. These policies will have minor positive effects on health. Policy 19.1 and 19.2 aim to manage and reduce demand for parking. This may reduce the numbers of vehicles in city/town centres making

them safer for pedestrians and cyclists. Policy 19.1 and 19.3 may indirectly benefit the economy as reduced town and city centre congestion will enable public transport and cycling to be more reliable and efficient. Use of smart technology will also have benefits. Policy 19.2 aims to manage parking by encouraging alternative modes of transport. However, reduction in parking or higher pricing may put some people off, whilst encouraging others. Policy 19.1 promotes use of electric and other ultra-low emission vehicles through lower tariffs on parking and priority spaces with charging infrastructure. This will help increase uptake of non-petrol/diesel vehicles which will have benefits for air quality. Policy 19.2 seeks to reduce demand for parking through provision of alternatives. This will help modal shift away from the private car and therefore, a reduction in associated transport emissions.

Policy Theme 20 aims to reduce congestion on the highway network. This will have benefits for health, air quality, and GHG reduction. However, an unintended consequence may be that it encourages increased vehicle use. The policies have the potential to increase the accessibility within the region by improving the capacity of the road network and supporting economic growth. Policy 20.1 also aims to promote a busway which could be used as an alternative to car travel. The policies promote new highway infrastructure and therefore, there is potential for negative effects on biodiversity, landscape, historic environment, and soils depending on their location, design and project level mitigation measures.

## 6.3 Assessment of LTP Projects

The projects proposed in the LTP have been assessed as part of the SEA process and the assessment tables are provided in Appendix H. Projects included in policies have also been assessed as part of that policy (see section 6.2). Projects that are currently under construction have not been assessed as these are considered part of the baseline. Several of the proposed projects in the LTP have already undergone SEA as part of the previous LTP development. These projects have only been re-assessed where the project has changed since the previous assessment.

The projects are at different stages of development, some are at the concept stage or do not have specific locations and others are more defined. The majority of projects are likely to have construction related effects including impacts on noise and vibration, air quality through dust from construction activities, visual intrusion, increased traffic from construction vehicle movements, use of materials, energy and water, and generation of waste materials. Depending on location, nature of the project and project level mitigation measures there is also potential for habitat loss and species disturbance, loss of agricultural land, water quality issues, flood risk issues, and effects on the setting of the historic environment and landscape character. The LTP contains policies to try and reduce the negative effects associated with transport infrastructure and protect and enhance the natural and built environment including requiring a Construction Environmental Management Plan (CEMP) and considering environmental protection and enhancement within project design. Each project taken forward will be subject to environmental assessment screening through the planning process.

There is also opportunity to provide positive effects through design and co-ordination with partners and other organisations, including habitat creation and enhancement, incorporation of green infrastructure, increased access to the natural and historic environment (although increased pressure on these assets would need to be managed), increased accessibility and connectivity, and facilitating economic growth

## 6.4 Cumulative Effects

The cumulative effects of the LTP have been assessed through consideration of:

- The effects of the LTP policies and projects as a whole on the SEA objectives
- The potential links and effects of the LTP with other tiers of plans and projects

### 6.4.1 Cumulative Assessment of the LTP

The LTP as a whole including all the proposed policies and projects was assessed against the SEA objectives to determine the cumulative positive or negative effects of the Cambridgeshire and Peterborough LTP. The results are presented in Table 22.

The LTP strategy is a blended approach as described in Section 5. It focuses on a range of significant capital investments in highway, public transport and walking and cycling infrastructure, designed to support a significant increase in travel demand (expected to be generated by significant new development) but tailored to the local geographic and travel context. Overall the LTP is likely to have significant positive social effects from increased accessibility (both affordability and connectivity), increased choice and reliability of sustainable transport modes, economic growth, and health benefits. The LTP promotes sustainable transport modes including low and zero emission vehicles which will help reduce transport-related emissions providing benefits for air quality, GHG reduction and health.

The LTP promotes new road and rail transport infrastructure which has the potential for positive or negative cumulative effects depending on the location of the projects and mitigation measures incorporated into the design. Negative cumulative effects could include habitat loss and fragmentation, death, injury or disturbance to species, visual impacts, damage to heritage assets and archaeology, effect on setting of heritage assets, landtake including loss of agricultural land, and water pollution. There is

also opportunity to provide positive effects including habitat creation and enhancement, incorporation of green infrastructure, increased access to the natural and historic environment (although increased pressure on these assets would need to be managed), increased accessibility and connectivity, and facilitating economic growth. There are also policies in the LTP that aim to reduce negative effects associated with transport infrastructure and protect and enhance the natural and built environment.

**Table 22: Cumulative Effects of the LTP**

| SEA Objectives | LTP | Summary |
|---|---|---|
| Health | +++ | Health benefits through promotion of active travel, improved air quality, and increased accessibility resulting in benefits for mental wellbeing. |
| Safety | ++ | Increased transport health and safety through crime prevention and security measures on public transport, segregation of road users, and training for cyclists. |
| Accessibility | +++ | Increased accessibility through improved and well-connected sustainable transport modes, access of travel information, integrated ticketing and affordability of the public transport network. |
| Economy | +++ | Contribution to economy growth through a more reliable and efficient transport network, facilitating visitor travel and business travel, and freight moment. |
| Sustainable Transport | +++ | Promotion of sustainable transport modes including public transport, walking and cycling through increased provision, new routes, and improved services and facilities. |
| Biodiversity / Geodiversity | ? | The LTP facilitates modal shift to sustainable transport modes which will have benefits for biodiversity. However, projects proposed within the LTP have the potential to negatively affect biodiversity through habitat and disturbance. |
| Historic Environment | ? | The LTP facilitates modal shift to sustainable transport modes which is likely to have benefits for the historic environment. However, projects proposed within the LTP have the potential to negatively affect the historic environment through new infrastructure affecting the setting of heritage assets and potential disturbance of archaeology. |
| Landscape | ? | The LTP facilitates modal shift to sustainable transport modes which is likely to have benefits for landscape. However, projects proposed within the LTP have the potential to negatively affect the character of the landscape through new infrastructure effects on visual amenity, tranquillity, and openness of the countryside. |
| Soils | ? | The LTP facilitates modal shift to sustainable transport modes which is likely to have benefits for soils. However, projects proposed within the LTP have the potential to negatively affect soils through agricultural land loss. |
| Water | ? | The LTP facilitates modal shift to sustainable transport modes which is likely to have benefits for the water environment. However, projects proposed within the LTP have the potential to negatively affect the water environment through water quality issues. |
| Flood Risk | + | The LTP aims to ensure transport project do not increase flood risk and that appropriate design features such as SuDS are included. |
| Air Quality | +++ | The LTP facilitates modal shift to sustainable transport modes which will reduce emissions associated with transport and benefit air quality. |
| GHG emissions | +++ | The LTP facilitates modal shift to sustainable low or zero carbon transport modes which will reduce GHG emissions associated with transport. |
| Climate Resilience | + | The LTP contains polices that require transport infrastructure projects to consider climate resilience within the design process. |
| Reuse of infrastructure | ++ | The LTP aims to maximise capacity and use of existing infrastructure and well as promoting new infrastructure. |

### 6.4.2 Links with other plans and projects

**Links with other plans**

The LTP is a strategic document that sets the framework and principles for future transport planning in the Cambridgeshire and Peterborough area for the next 30 years. As such it has links with many other

plans (see Appendix B). In particular, it supports plans on emissions reduction, green infrastructure, healthy lifestyles, accessibility, and environmental improvement.

The Local Plan for each local authority forms the main policy document for delivering development within each area. The LTP has strong links with the Local Plans. In particular, the LTP policies on providing improved connections to new housing development and economic centres will link with new development sites put forward in the Local Plans. Each of Local Authorities within the LTP area have published a Local Plan that has been subject to SEA/SA (see Table 23).

The LTP is likely to support the delivery of the Local Plans and other plans such as climate change strategies and community strategies. The positive environmental effects associated with the enhancement of local sustainable transport within the LTP have the potential to provide significant positive environmental effects in combination with wider plans and polices on climate change and air quality. Policies on housing have the potential to result in positive environmental effects in combination with the LTP through unlocking development sites and supporting new residential developments which aim to ensure that they are integrated as part of sustainable transport networks, this will result in positive environmental effects for populations, communities and human health (through protecting and promoting everyone's physical and mental wellbeing and safety).

**Table 23: Local Authority Local Plans**

| Local Authority | Local Plan | Local Plan SA |
|---|---|---|
| Cambridge City Council | Adopted Cambridge City Council Local Plan 2018[21] | Cambridge Local Plan Submission Sustainability Appraisal report and Habitats Regulations Screening Assessment (July 2013) and Addendum (2015, revised March 2016) and Sustainability Appraisal of Main Modifications (December 2017)[22] |
| East Cambridgeshire District Council | Adopted - East Cambridgeshire Local Plan April 2015[23]<br>(Note the emerging Local Plan has been withdrawn) | Sustainability Appraisal of the Local Plan 2015[24] |
| Fenland District Council | Fenland Local Plan Adopted May 2014[25] | Sustainability Appraisal of the Fenland Local Plan (May 2014)[26] |
| Huntingdonshire District Council | Emerging Local Plan – Huntingdonshire Local Plan 2036: Proposed Submission (March 2018)[27] | Huntingdonshire's Local Plan to 2036: Final Sustainability Appraisal Report (December 2017)[28] |
| Peterborough City Council | Emerging Local Development Plans – Peterborough Local Plan (Proposed Submission) January 2018[29]<br>Adopted Local Plan – Peterborough Core Strategy Development Plan Document Adopted 23rd February 2011[30] | Peterborough Local Plan (Submission Version) Sustainability Appraisal 9january 2018)[31] |

21 https://www.cambridge.gov.uk/local-plan-2018
22 https://www.cambridge.gov.uk/local-plan-2018
23 https://www.eastcambs.gov.uk/local-development-framework/east-cambridgeshire-local-plan-2015
24 https://www.eastcambs.gov.uk/sites/default/files/SA%20report%20of%20the%20April%202015%20Adopted%20LP%20-%20FINAL.pdf
25 https://www.fenland.gov.uk/media/12064/Fenland-Local-Plan---Adopted-2014/pdf/Fenland_Local_Plan-Adopted_2014.pdf
26 http://www.fenland.gov.uk/CHttpHandler.ashx?id=10011&p=0
27 http://www.huntingdonshire.gov.uk/planning/new-local-plan-to-2036/local-plan-document-library/
28 http://huntingdonshire.gov.uk/media/2685/draft-final-sustainability-appraisal-report.pdf
29 https://drive.google.com/file/d/1ZwkIR2mdq3nO-DrOWi5B0U05f_njxYEb/view
30 https://www.peterborough.gov.uk/council/planning-and-development/planning-policies/local-development-plan/
31 https://drive.google.com/file/d/1EiXl1Cq8ckAhRqh8qVyKnSxqwIMPuxJQ/view

| Local Authority | Local Plan | Local Plan SA |
|---|---|---|
| South Cambridgeshire District Council | Adopted South Cambridgeshire Local Plan 2018[32] | South Cambridgeshire Local Plan Submission Sustainability Appraisal Report and Habitats Regulations Screening Assessment (March 2014)[33]<br>Sustainability Appraisal Addendum Report incorporating Habitats Regulations Assessment Screening Assessment (2015, revised March 2016)[34]<br>Sustainability Appraisal of Main Modifications (December 2017)[35] |

**Links with other projects**

Various projects will be taken forward in order to implement the LTP. Each proposed project will be assessed by the local planning authority in terms of its potential for environmental impacts and effects. A planning application search of local authority planning portals was made using criteria of presence of EIA screening request dated between 16/01/2014 and 16/01/2024 (five years prior to search date and five years post search date). Residential housing sites with under 100 units have been screened out as being insignificant. The results of the planning portal search are presented in Appendix I.

There is the potential for construction related cumulative effects on a number of social and environmental receptors (e.g. short-term declines in water quality or noise and visual disturbance). However, these potential effects will be identified within each project and minimised through the implementation of a Construction Environmental Management Plan. Projects will be spread across the region and are likely to have different phasing. Therefore, construction related cumulative effects are considered to be insignificant.

## 6.5 Transboundary Effects

The LTP has the potential for transboundary effects with neighbouring local authorities, especially through larger proposed rail and road schemes which may enhance accessibility in and out of the region to other areas of the country. Local transport plans for neighbouring authorities have been consulted to determine any potential trans-regional effects (see Table 24). The LTPs have also been subject to SEA to identify, mitigation and enhance environmental outcomes.

**Table 24: Neighbouring Authority LTPs**

| Neighbouring Local Authority | LTP Priorities |
|---|---|
| Norfolk | Norfolk's 3rd Local Transport Plan, Connecting Norfolk, sets out the strategy and policy framework for transport up to 2026[36]. The policy themes of the plan are<br>• Managing and maintaining the transport network<br>• Sustainable growth<br>• Strategic connections<br>• Transport emissions<br>• Road Safety<br>• Accessibility |

[32] https://www.scambs.gov.uk/planning/local-plan-and-neighbourhood-planning/the-adopted-development-plan/south-cambridgeshire-local-plan-2018/

[33] https://www.scambs.gov.uk/planning/local-plan-and-neighbourhood-planning/the-adopted-development-plan/south-cambridgeshire-local-plan-2018/

[34] https://www.scambs.gov.uk/planning/local-plan-and-neighbourhood-planning/the-adopted-development-plan/south-cambridgeshire-local-plan-2018/

[35] https://www.scambs.gov.uk/planning/local-plan-and-neighbourhood-planning/the-adopted-development-plan/stages-in-the-preparation-of-the-local-plan-2018/main-modifications-to-the-local-plans-january-february-2018/

[36] https://www.norfolk.gov.uk/-/media/norfolk/downloads/what-we-do-and-how-we-work/policy-performance-and-partnerships/policies-and-strategies/roads-and-transport/norfolk-transport-plan-for-2026.pdf?la=en&hash=054A0C88BC2D430A37E41FD6ACB1EFA657FC8739

| Neighbouring Local Authority | LTP Priorities |
|---|---|
| Suffolk | Suffolk's 3rd Local Transport Plan[37] sets out the county council's long-term transport strategy to 2031. The policy themes of the plan are:<br>• Maintaining (and in the future improving) our transport networks<br>• Tackling congestion<br>• Improving access to jobs and markets<br>• Encouraging a shift to more sustainable travel patterns |
| Hertfordshire | The plan[38] covers the period up to 2031. The Plan has the following objectives:<br>• Improve access to international gateways and regional centres outside Hertfordshire<br>• Enhance connectivity between urban centres in Hertfordshire<br>• Improve accessibility between employers and their labour markets<br>• Enhance journey reliability and network resilience across Hertfordshire<br>• Enhance the quality and vitality of town centres<br>• Preserve the character and quality of the Hertfordshire environment<br>• Reduce carbon emissions<br>• Make journeys and their impact safer and healthier<br>• Improve access and enable participation in everyday life through transport |
| Central Bedfordshire | The Local Transport Plan[39] sets out the Council's aims and objectives to 2026. The Plan has the following objectives:<br>• Increase the ease of access to employment by sustainable modes<br>• Reduce the impact of commuting on local communities<br>• Increase the number of children travelling to school by sustainable modes of transport<br>• Improve access to healthcare provision<br>• Ensure access to food stores and other local services particularly in local and district centres<br>• Enable access to a range of leisure, cultural and tourism facilities for residents and visitors alike by a range of modes of transport<br>• Enable the efficient and reliable transportation of freight<br>• Encourage the movement of freight by sustainable modes<br>• Minimise the negative impacts of freight trips on local communities<br>• Reduce the risk of people being killed or seriously injured |
| Bedford | The LTP[40] runs from 2011 to 2021. The plan has the following objectives:<br>• To provide a reliable and efficient transport system, in order to support a strong local economy and facilitate sustainable growth<br>• To deliver improvements that encourage a reduction in transport emissions and greenhouse gases, in order to tackle climate change and develop a low carbon community capable of adapting to the impacts of climate change<br>• To promote greater equality of opportunity by providing opportunities for all residents to access key services and facilities<br>• To contribute to better safety, security and health by reducing death, injury or illness from transport and promoting travel modes that are beneficial to health<br>• To encourage and support a sustainable transport system that contributes to a healthy natural and urban environment<br>• To gain a better understanding of travel behaviour in and out of the Borough, in order to make informed decisions on how people can be encouraged to make "smarter" sustainable travel choices |
| Northampton | The LTP[41] runs to 2026. The plan has six strategic aims:<br>• Fit for the Future – creating a transport system that supports and encourages growth and plans for the future impacts of growth, whilst successfully providing benefits for the County<br>• Fit for the Community – through the transport system help to maintain and create safe, successful, strong, cohesive and sustainable communities where people are actively involved in shaping the places where they live |

[37] https://www.suffolk.gov.uk/assets/Roads-and-transport/public-transport-and-transport-planning/2011-07-06-Suffolk-Local-Plan-Part-1-lr.pdf

[38] https://www.hertfordshire.gov.uk/media-library/documents/about-the-council/consultations/ltp4-local-transport-plan-4-complete.pdf

[39] http://centralbedfordshire.gov.uk/Images/transport-strategy_tcm3-7901.pdf

[40] http://bbcdevwebfiles.blob.core.windows.net/webfiles/Files/LTP3_Strategy_09_Feb_2011.pdf

[41] https://www3.northamptonshire.gov.uk/councilservices/northamptonshire-highways/transport-plans-and-policies/Documents/Northamptonshire%20Transportation%20Plan%20-%20Fit%20for%20Purpose.pdf

| Neighbouring Local Authority | LTP Priorities |
|---|---|
| | • Fit to Choose – ensuring that the people of Northamptonshire have the information and the options available to them to be able to choose the best form of transport for each journey that they make<br>• Fit for Economic Growth – creating a transport system that supports economic growth, regeneration and a thriving local economy and successfully provides for population and business growth<br>• Fit for the Environment – to deliver a transport system that minimises and wherever possible reduces the effect of travel on the built, natural and historic environment<br>• Fit for Best Value - being clear about our priorities for investment and focusing on value for money by prioritising what we spend money on and how it can be beneficial for the county as a whole and search for alternative sources of funding |
| Rutland | Rutland's 4th LTP Moving Rutland Forward[42] covers the period to 2036 and is currently in draft. The plan has been developed with the following vision:<br>• To facilitate delivery of sustainable population and economic growth<br>• To meet the needs of our most vulnerable residents<br>• To support a high level of health and wellbeing (including combating rural isolation) |
| Lincolnshire | The 4th Lincolnshire LTP[43] runs to 2023. The plan has the following objectives:<br>• To assist the sustainable economic growth of Lincolnshire, and the wider region, through improvements to the transport network<br>• To improve access to employment and key services by widening travel choices, especially for those without access to a car<br>• To make travel for all modes safer and, in particular, reduce the number and severity of road casualties<br>• To maintain the transport system to standards which allow safe and efficient movement of people and goods<br>• To protect and enhance the built and natural environment of the county by reducing the adverse impacts of traffic, including HGVs<br>• To improve the quality of public spaces for residents, workers and visitors by creating a safe, attractive and accessible environment<br>• To improve the quality of life and health of residents and visitors by encouraging active travel and tackling air quality and noise problems<br>• To minimise carbon emissions from transport across the county |

[42] https://www.rutland.gov.uk/_resources/assets/attachment/full/0/72383.pdf

[43] https://www.lincolnshire.gov.uk//Download/102928

# 7 Mitigation and Monitoring

## 7.1 Mitigation

Mitigation and enhancement measures have been identified for the LTP to strengthen environmental outcomes. Table 26 presents the recommendations identified from the scoping feedback and how these have been incorporated into the LTP. Table 27 presents the mitigation and enhancement measures developed during the assessment stage and how these have been incorporated into the LTP. Table 27 presents additional recommendation from the SEA.

**Table 25: Recommendations from Scoping Feedback**

| Topic | Recommendation | How addressed in the LTP |
|---|---|---|
| LTP Vision, Goals and Objectives | Include Conservation of the Historic Environment as a wider objective | This has been included under the LTP environmental objectives |
| | There is a vision of Equity, but the definition is one of Equality. The LTP should strive for equity, not equality to reflect the difference in the population and urban vs rural difference. | This has been changed from 'Equity' to 'Social' |
| | Include Health as a wider objective | This has been included under the LTP social objectives |
| | The Environment objective should read "Protect and enhance our environment…" | The LTP environment objective has been updated |
| | Include reference to digital technology and how this is likely to impact future travel. | The LTP document recognises the importance of digital technology on future travel and contains policies on this area |

**Table 26: Mitigation and Enhancement Measures Incorporated into the LTP**

| Policy | Relevant SEA topic | Mitigation Recommendation | How addressed in the LTP |
|---|---|---|---|
| Policy Theme 4.2: Maintaining and managing the transport network | Climate, Soils, Air quality, Material assets | • Include details on waste and material use within maintenance and capital projects, e.g. use of the waste hierarchy, maximising life and capacity of existing assets, using sustainably sourced materials with recycled content, reusing demolition material on new schemes etc. to support the principles of a circular economy. | This has been addressed within Policy Theme 4.2. |
| Policy Theme 10.1: Reducing the carbon emissions from travel | Climate, Air quality, Human health | • Policy 10.1.2 refers to electric vehicle charging points. To facilitate a switch to EV this could be widened to include EV infrastructure and information (not just charging points) e.g. priority parking for EV, an app with local maps on EV charging points and parking bays.<br>• 'Low carbon economy' is mentioned in some of the other policies (e.g. built environment) but it would also seem to fit under policy 10.1 as reducing carbon emissions from travel will help contribute to a low carbon economy. | This has been addressed within Policy 10.1.2<br>This has been addressed within the text in Policy Theme 10.1 |
| Policy Theme 9.1: Protecting our natural environment | Flora and fauna, Population, Human health, Landscape, Water | • Biodiversity net gain is referred to in the policy overview but not in the policy wording. Consider bringing this out in the policy as well.<br>• Strengthen emphasis on cohesion and connectivity of green space and green infrastructure within Policy 9.1.3. | This has been addressed within the Policy Theme 9.1 overview text and Policy 9.1.3. |

**Table 27: Recommended Mitigation and Enhancement Measures**

| Policy | Relevant SEA topic | Mitigation Recommendation |
|---|---|---|
| Policy Theme 4.2: Maintaining and managing the transport network | Climate, Soils, Air quality, Material assets | • The policies under 4.2 are mainly focussed on highways, consider including other capital projects as well. |
| Policy Theme 9.1: Protecting our natural environment | Flora and fauna, Population, Human health, Landscape, Water | • Strengthen promotion of transport measures and opportunities with multiple benefits (e.g. benefits for transport but also for the environment and social (communities)) within the policies. |
| Policy Theme 3.2: Supporting the local visitor economy | Flora and fauna, Historic environment, Landscape | • The policy aims to increase access to tourism and natural areas. Visitor access and demand to tourism sites e.g. designated sites, heritage sites, will need to be balanced with protection of these sites to avoid damage |
| Policy Theme 5.2: Ensuring transport security | Flora and fauna | • Vegetation clearance for safety and security could have effects on biodiversity. Ensure an ecological survey is carried out prior to clearance works. |
| Policy Theme 9.1: Protecting the natural environment | Flora and fauna, Landscape | • The policies may result in increased footfall/visitors to natural areas and the countryside which may affect the tranquillity or damage sites. This will need to be carefully managed. |
| Policy Theme 13: Delivering a seamless public transport system | Flora and fauna, Historic environment, Water, Soils, Landscape | • Policy 13.4 promotes park and ride sites, depending on the location of these sites there could be negative effects on the environment. The site selection process will need to take this into account. |
| Policy Theme 15: improving public transport | Flora and fauna, Historic environment, Water, Soils, Landscape | • Tunnelling under Cambridge as part of the CAM project will generate a large amount of excavated material and a strategy should be developed for its reuse. |

Policy Theme 1.1 (enabling development), 2.2 (expanding labour markets), 3.1 (accessing ports and airports), 3.3 (supporting business clusters), 15 (improving public transport), 17 (travelling by train), 20 (making long distance journeys by car) all include infrastructure projects as part of the policies. The LTP also includes a range of projects, most of which include new and/or upgraded infrastructure. There is potential for negative effects on the environment depending on their location, design and project level mitigation measures. However, there are also opportunities for enhancement through design and co-ordination with partners and other organisations. The LTP contains policies that aim to reduce negative effects associated with transport infrastructure and protect and enhance the natural and built environment including requiring a Construction Environmental Management Plan (CEMP) and considering environmental protection and enhancement within project design.

## 7.2 Monitoring

Monitoring the negative effects of implementing the Cambridgeshire and Peterborough LTP is an essential ongoing element of the SEA process. Monitoring helps ensure that the identified SEA objectives are being achieved, allows early identification of unforeseen adverse effects and thus appropriate remedial action can be taken. Monitoring will be an important requirement to measure performance and ensure the LTP is being successfully implemented. The DCLG guidance states that it is inappropriate to monitor everything, and monitoring proposals should be focused on the following areas that:

- Indicate a likely breach of international, national or local legislation, recognised guidelines or standards
- May give rise to irreversible damage, with a view to identifying trends before such damage occurs
- Were subject to uncertainty in the SEA and where monitoring would enable prevention or mitigation measures to be taken.

Negative effects identified during the SEA process were centred around future transport infrastructure development and the potential for effects on ecology, historic environment, water quality, landscape, flood risk, and soils.

The LTP itself includes a set of measurement and performance indicators which will be monitored to assess the success and progress of the LTP. These indicators are presented in Table 28. Additional indicators proposed for monitoring as part of the SEA are presented in Table 29. The majority of the proposed SEA indicators were monitored through the previous LTPs, so a baseline should be available.

**Table 28: LTP Measurement and Performance Indicators**

| LTP Indicators |
|---|
| Non-frequent bus services running on time |
| Average excess waiting time for frequent bus services |
| Total passenger services on local bus services |
| Rail cancellations and significant lateness (CaSL) |
| Total station entries and exits, total Combined Authority |
| Percentage of population within 30 minutes of key amenities by public transport or walking |
| Average minimum journey times by walking or public transport to nearest of selected rail stations (Department for Transport, Morning peak) |
| Average minimum journey times by car transport to nearest of selected rail stations (Department for Transport, Morning peak) |
| Congestion – average journey time per mile during morning peak |
| Average number of selected major road junctions within 30 minutes' drive (Department for Transport, morning peak) |
| Attitudes towards cycling – "I think that cycling on the road is safe" |
| Method of travel to work by active modes |
| Percentage of the population who cycle at least three times per week |
| Percentage of the population who make journeys by walking at least three times per week |
| Ratio of median house prices to median salary |
| Ratio of lower quartile house price to lower quartile salary |
| Ratio of new dwellings to population increase |
| Percentage of public transport users within 30 minutes of key amenities by public transport or walking |
| Ratio of housing targets to housing completions |
| Average minimum journey times by car to the nearest of selected airports (Department for Transport, Morning Peak) |
| Average minimum journey times by public transport to the nearest of selected airports (Department for Transport, Morning Peak) |
| Number of tourists per annum |
| Total Foreign Direct Investment (FDI) |
| GVA per head |
| Birth of businesses per 100,000 of population |
| Survey – "Does your business think that the transport network in the local network is of a high standard" |
| Numbers of Air Quality Management Areas (AQMAs) |
| Estimated total volume of Carbon Dioxide emissions from transport (kt $CO_2$) |
| Trends in $NO_2$ concentration at a range of monitoring sites |
| Trends in $PM_{10}$ concentration at a range of monitoring sites |
| Total people killed or seriously injured in road traffic accidents per annum |
| Total slight injuries in traffic accidents |
| Total number of assaults on public transport per annum |
| Survey data – "I feel that Public Transport is safe to use" |

Source: Cambridgeshire and Peterborough LTP

**Table 29: Additional Monitoring Indicators**

| SEA Topic | Indicator | Responsibility | Timeframe |
|---|---|---|---|
| Flora and Fauna | Number, area and condition of designated sites | CPCA/ All Councils/ NE/ Cambridgeshire and Peterborough Environmental Records Centre | Annual |
| | Achievement of biodiversity net gain on LTP projects | CPCA / NE | Annual |
| | Achievement of BAP targets, especially for roadside verges and in new planting interventions | CPCA / NE | Annual |
| Historic environment | Number of listed buildings and those at risk | CPCA / Historic England (Heritage counts and Heritage at Risk Register) | Annual; |
| | Number of scheduled monuments and those at risk | | |
| | Number of registered parks and gardens and those at risk | | |
| | Number of conservation areas and those at risk | | |
| Water quality | % of transport interventions incorporating conditions to protect groundwater, where these have been requested by the Environment Agency | EA | Annual |
| | % of transport interventions incorporating conditions (such as SUDS) to protect surface water, where these have been requested by the Environment Agency | EA | Annual |
| Landscape | Extent of green belt | Councils | Annual |
| | Public green space lost/ gained as a result of LTP projects | CPCA | Annual |
| Flood risk | Flood and coastal erosion risk management and sustainable drainage systems (SDL080) | CPCA/ All Councils/ EA | Annual |
| Soils | Total area of grade 1, 2 or 3a agricultural land lost due to LTP projects | CPCA | Annual |
| | Number of transport interventions that lead to the remediation of contaminated land | CPCA/ All Councils | Annual |

# 8 Summary

## 8.1 Conclusions of the SEA

The SEA undertaken for the Cambridgeshire and Peterborough LTP has helped to identify the likely effects of the LTP policies and projects. The LTP strategy is a blended approach as described in Section 5. It focuses on a range of significant capital investments in highway, public transport and walking and cycling infrastructure, designed to support a significant increase in travel demand (expected to be generated by significant new development) but tailored to the local geographic and travel context. Overall the LTP is likely to have significant positive social effects from increased accessibility (both affordability and connectivity), increased choice and reliability of sustainable transport modes, economic growth, and health benefits. The LTP promotes sustainable transport modes including low and zero emission vehicles which will help reduce transport-related emissions providing benefits for air quality, GHG reduction and health.

The LTP promotes new road and rail transport infrastructure which has the potential for positive or negative effects depending on the location of the projects and mitigation measures incorporated into the design. Negative effects could include habitat loss and fragmentation, death, injury or disturbance to species, visual impacts, damage to heritage assets and archaeology, effect on setting of heritage assets, landtake including loss of agricultural land, and water pollution. There is also opportunity to provide positive effects through design and co-ordination with partners and other organisations, including habitat creation and enhancement, incorporation of green infrastructure, increased access to the natural and historic environment (although increased pressure on these assets would need to be managed), increased accessibility and connectivity, and facilitating economic growth. The LTP also contains policies that aim to reduce negative effects associated with transport infrastructure and protect and enhance the natural and built environment including requiring a Construction Environmental Management Plan (CEMP) and considering environmental protection and enhancement within project design. The SEA process has also resulted in mitigation and enhancement measures being identified for the LTP to strengthen environmental outcomes.

## 8.2 Next Steps

The SEA Environmental Report will be published for public consultation alongside the draft Cambridgeshire and Peterborough LTP. A consultation log of responses will be produced. Following consultation, the Environmental Report will be updated to reflect consultation comments and any changes between the draft and final LTP.

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MOTT MACDONALD

# Cambridgeshire and Peterborough Combined Authority Local Transport Plan

## Habitats Regulation Assessment Task 1 Screening

May 2019

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# Cambridgeshire and Peterborough Combined Authority Local Transport Plan

## Habitats Regulation Assessment Task 1 Screening

May 2019

# Issue and Revision Record

| Revision | Date | Originator | Checker | Approver | Description |
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# Contents

# Executive summary

This Strategic Habitats Regulations Assessment has been prepared to inform of the implications of the proposed Cambridgeshire and Peterborough Combined Authority Local Transport Plan on European Sites, as a requirement of Regulation 63 of the Conservation of Habitats and Species Regulations 2017.

An assessment is required under the Regulations for any proposed plan or project which may have a significant effect on one or more European sites or an impact of the plan which may affect the management of those sites. The purpose of the assessment is to determine whether or not the plan is likely to have significant effects on European sites and to suggest ways in which they could be avoided or if mitigation measures are required to negate or reduce any likely effects that the plan may cause.

13 European sites lie within the zone of influence of the Local Transport Plan have been assessed to determine likely significant effects arising as a result of the implementation of the plan on any designated feature. A significant effect is determined as any deleterious effect on any designated feature which would cause that feature to be degraded to such a degree that the conservation objective of the European site is undermined.

This screening has concluded that there are no likely significant effects on any European site arising through adoption of the Local Transport Plan either alone or in combination with other reasonably foreseeable plans and projects.

# 1 Introduction

## 1.1 Background

The Cambridgeshire and Peterborough Devolution Deal gives the Cambridgeshire and Peterborough area greater local control over policy decisions covering transport, skills and business support. In light of this, the Cambridgeshire and Peterborough Combined Authority (CPCA) is responsible for developing a statutory Local Transport Plan (LTP) for the region. This Strategic Habitats Regulations Assessment has been prepared to inform the Natural England ("the Competent Authority") of the implications of the LTP on European Sites, as a requirement of Regulation 63 of the Conservation of Habitats and Species Regulations 2017.

Mott MacDonald Limited has been appointed by CPCA to undertake a Strategic Habitat Regulations Assessment of the LTP. The initial screening has been undertaken and is reported here.

The Transport Act 2000 (as amended by the Local Transport Act 2008) requires local transport authorities to produce an LTP. Under the Cambridgeshire and Peterborough Combined Authority Order, 2017, the CPCA is now the Local Transport Authority with strategic transport powers for the area previously covered by Cambridgeshire County and Peterborough City Councils.

This document has been prepared to assist the Competent Authority to assess the implications of the LTP on European sites or their management. A plan or project cannot be given consent unless it can be determined that it would not have a likely significant effect (adverse) on the integrity of a European site. Where adverse effects are considered likely further assessment is required to determine the scale of the effect and propose mitigation or alternatives that would not have a significant effect. Any plan or project which is not directly connected with or necessary to the management of a European site must be subjected to an assessment. The LTP is regarded to have the potential to impact European sites and therefore this screening has been completed in accordance with the relevant legislation. The legislation and process of the assessment is further explained in Chapter 3 of this report.

## 1.2 Structure of this report

The findings of this Habitats Regulations Assessment (HRA) Task 1 Screening document is documented in this report. The structure of this report includes the following elements:

Task 1 Screening

- Chapter 2: Description of Local Transport Plan;
- Chapter 3: Methodology;
- Chapter 4: Habitats Regulation Assessment Framework;
- Chapter 5: Identification and Management of European Sites;
- Chapter 6: Characteristics of the European Sites;
- Chapter 7: Assessment of Likely Effects;
- Chapter 8: In-Combination Effects;
- Chapter 9: Consultations; and
- Chapter 10: Conclusion.

## 1.3 Experience of the authors

The experience of those involved in the production of this assessment is included in Table 1 below.

**Table 1: Experience of Authors**

| Name | Role | Title | Experience |
|---|---|---|---|
| Amy Anderson | Author | BSc Environmental Geoscience, PhD Aquatic Ecology | 8 years' experience in academia and environmental consultancy. Assessing impact of anthropogenic activities on natural processes |
| Clive Williams | Author | BSc (Hons) Applied Geology, MSc Industrial Mineralogy, CGeol, SiLC, SQP | 25 years' in environmental consultancy preparing Environmental Impact Assessment (EIA), Strategic Environmental Assessment (SEA) and HRA |
| Katie Partington | Author | BSc (Hons)<br>Dip Arb L4 (ABC) | 8 years working in Local Authority advising on ecology, biodiversity and arboriculture issues. Three years working in the private sector as an Environmental Consultant, specialising in EIA and ecology. Significant experience in assessing schemes for environmental impact, communicating advice and negotiating environmental gains. |
| Joanne Bates | Checker | BSc (Hons) CEnv MIEEM | 19 years across a multitude of sectors. Specific Strategic Habitats Regulations Assessment (sHRA) and Assessment of Implications on European Sites (AIES) highway or linear project experience has been obtained whilst seconded to South Wales Trunk Road Agency, Highways England project schemes and employer's agent on Welsh Government major road schemes. |
| Caspar Probert | Approver | BEng (Hons), MCIWEM, CWEM | Over 20 years' experience in the field of environmental consultancy and assessment of development impact. Extensive experience in the field of SEA, EIA, ecological assessment and environmental mitigation. |

## 1.4 Limitations

Mott MacDonald Limited has used published data and information gathered from the project team in the production of this Screening Report. In order to produce this sHRA, Mott MacDonald has relied on published data and information provided by CPCA and from third party organisations. This assessment has been undertaken in accordance with information that is in the public domain along with the proposed LTP which is yet to be formally published.

The baseline information collected in this Screening Report is the most up-to-date information currently available at the time of the production of this report. It is possible that conditions described in this report may change over time and the baseline information will be reviewed and up-dated as appropriate throughout the SEA and HRA process. The consultation process aims to address and minimise any gaps in information to ensure all potential environmental and socio-economic effects have been considered.

The authors have used professional judgement to assess the potential impacts and the significance of these on European sites. The precautionary principal has been used where there is reasonable scientific uncertainty.

# 2 Description of the Local Transport Plan

## 2.1 Background

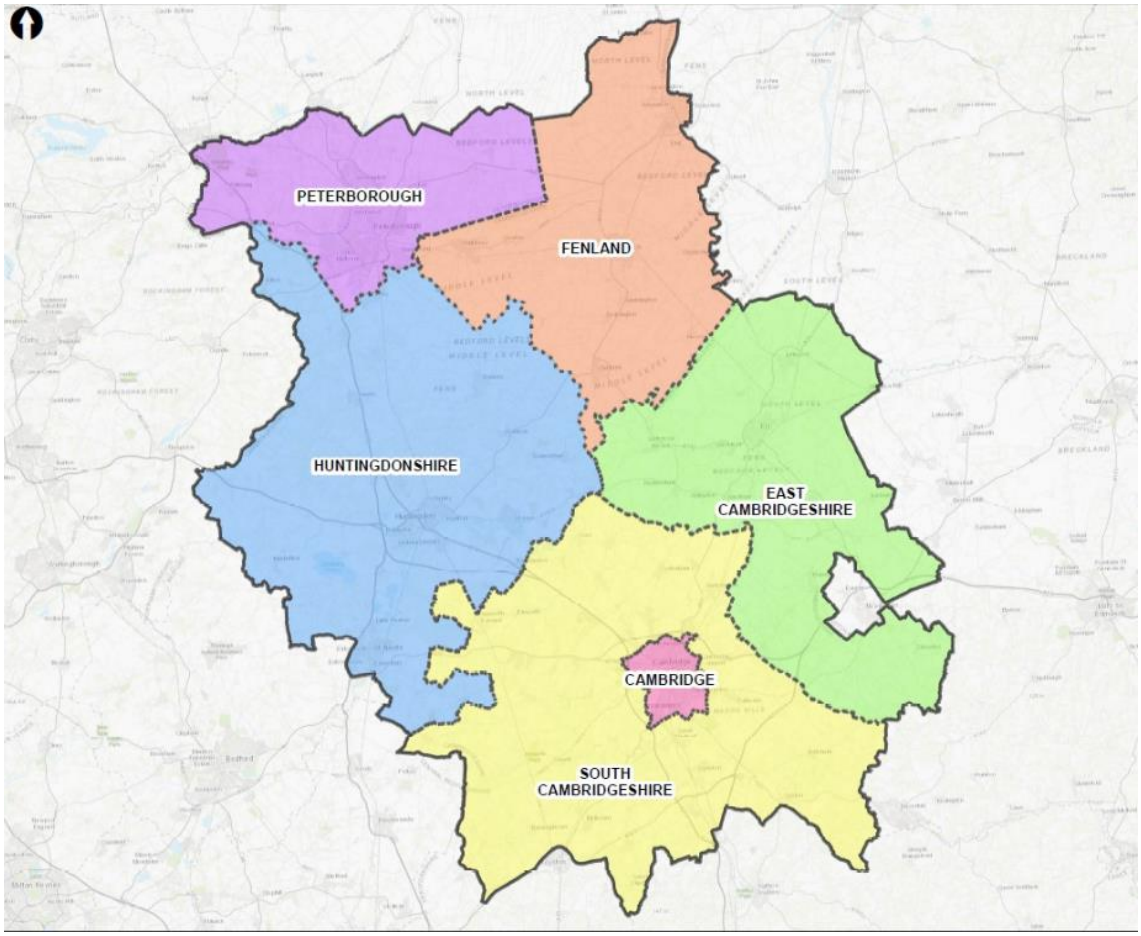
Good transport is a vital factor in building sustainable local communities and one of the United Nations (UN) Sustainable Development Goals (SDG). It contributes to the achievement of stronger, safer and healthier communities, equality and social inclusion, environmental objectives and more successful local economies. The LTP is a vital framework in helping the CPCA work with stakeholders to strengthen its place-shaping role and its delivery of transport services to the community.

The current LTP for the Cambridgeshire and Peterborough area is an amalgamation of the two LTPs previously prepared by both councils. This was necessary to ensure that that the CPCA complied with its statutory duty to produce an LTP following the formation of the CPCA. As a result, the current LTP does not fully reflect the aspirations of the CPCA as set out by the Mayor and in the wider CPCA 2030 Strategy and so a new LTP is being developed. This new LTP covers the geographical areas of Cambridgeshire and Peterborough (see Figure 1), and includes the following Local Authorities:

- Cambridge City Council;
- East Cambridgeshire District Council;
- Fenland District Council;
- Huntingdonshire District Council;
- Peterborough City Council; and
- South Cambridgeshire District Council;

The new Cambridgeshire and Peterborough LTP will include policies and projects, designed to deliver the Plan's objectives. Transport policy and strategy documents (including the previous LTPs) have been reviewed to create a long-list of policies and projects for inclusion within the Plan. The long-list of projects has been reviewed with Local Authority officers to ensure that those taken forward are 'current' and reflect local priorities.

**Figure 1: Cambridgeshire and Peterborough Local Transport Plan Area**




Source: Mott MacDonald 2019

## 2.2 Objectives of the Local Transport Plan

The LTP has three goals:

**Economic** – Deliver economic growth and opportunity for all our communities;

**Social** – Provide an accessible transport system to ensure everyone can thrive and be healthy; and

**Environmental** – Protect and enhance our environment and tackle climate change together.

Underpinning these goals are 10 objectives with 76 associated policies (Table 2) and 10 Modal Policies with 31 associated policies (Table 3).

**Table 2: LTP Policies**

| Objective | Policy Theme | Policies |
|---|---|---|
| 1: Support new housing and development to accommodate a growing population and workforce, and address housing affordability issues | Enabling development | Deliver strategic transport and complementary connectivity infrastructure |
| | | Early engagement with developers |
| | | Secure developer contributions for strategic and local infrastructure |
| 2. Connect all new and existing communities sustainably so all residents can easily access a good job, spreading the region's prosperity | Connecting developments sustainably | Support the provision of sustainable connectivity to and within developments |
| | | Ensure developers provide sufficient transport capacity and connectivity to support and meet the requirements arising from development |
| | | The design of parking |
| | Expanding labour markets | Support measures to reduce peak demand on the highway network |
| | | Improve the accessibility and connectivity of our public transport links to expand our labour market catchments |
| | | Invest in our highway network to improve accessibility |
| 3. Ensure all of our region's businesses and tourist attractions are connected sustainably to our main transport hubs, ports and airports | Accessing ports and airports | Support improvements to our transport infrastructure to enable efficient access for freight travelling to Felixstowe and Harwich, particularly by rail |
| | | Support improved road and rail connectivity to nearby airports, in particular at Stansted |
| | | Support the region's visitor economy through efficient passenger connectivity at Harwich |
| | | Work in partnership with port and airport operators to encourage sustainable commuting patterns to their sites for workers commuting from within the Combined Authority |
| | Supporting the local visitor economy | Improving connectivity to international gateways and larger centres |
| | | Delivering an integrated transport network navigable by passenger who are visiting the region for the first time |
| | | Delivering sustainable transport connectivity to tourist destinations in rural areas |
| | | Providing sufficient space and appropriate infrastructure for coach services to manage the impacts of day visitors on our highway and parking infrastructure |
| | Supporting business clusters | Invest in our rail and highway networks to allow our firms, organisations and workers to trade and travel easily across the country and abroad |
| | | Improve local connectivity to bring firms and organisations in our towns and cities closer together |
| | Freight | Promoting rail freight |
| | | Promoting and enforcing appropriate Heavy Commercial Vehicle routing |
| | | Promoting sustainable urban freight distribution |
| | | Improving road freight facilities |
| | | Supporting efficient air freight and the aviation sector |
| | | Managing the risks to the transport network presented by climate change |

| Objective | Policy Theme | Policies |
|---|---|---|
| 4. Build a transport network that is resilient and adaptive to human and environmental disruption, improving journey time reliability | Building a resilient and adaptive transport network to climate change | Sustainable road network maintenance |
| | | Utilising proven technologies as they become available to help the transport network adapt to the challenges presented by climate change |
| | Maintaining and managing the transport network | Investigating the feasibility of harmonising highways and transport asset maintenance standards and performance indicators |
| | | Supporting highway authorities in minimising the whole life costs of the highway |
| | | Addressing the challenges of climate change and enhancing our communities and environment |
| 5. Embed a safe systems approach into all planning and transport operations to achieve Vision Zero – zero fatalities or serious injuries | Safety for all – a safe systems approach | A multi-agency approach to improving road safety |
| | | Continuous and comprehensive monitoring and evaluation of key road safety indicators |
| | | Support improvement in road user behaviour through education, training and publicity programmes |
| | | Adoption of the Safe System Approach into the mainstream of highway engineering |
| | Ensuring transport security | Addressing personal safety and security issues |
| | | Improving the security of public transport stops, stations and hubs |
| 6. Promote social inclusion through the provision of a sustainable transport network that is affordable and accessible for all | Transport accessibility for all | Supporting and promoting demand-responsive community transport services |
| | | Facilitating access to education and wider mobility for vulnerable children |
| | | Improving the accessibility of transport infrastructure |
| | | Promoting the provision of accessible transport information |
| | | Optimise the use of new technologies in improving accessibility |
| | Transport pricing and affordability | Improve our public transport to provide an affordable alternative to the car |
| | | Improve the affordability of travelling by bus and rail |
| | Access to education and key services | Access to education |
| | | Access to non-emergency healthcare and other key services |
| | | Digital Inclusion |
| | The future of mobility | Promote and support research, innovation and engagement work undertaken by Smart Cambridge |
| | | Provide the infrastructure which will enable the uptake and optimisation of new transport and digital connectivity technologies |
| | | Guiding the development of a regulatory framework under which new transport technology providers operate |
| 7. Provide ‘healthy streets’ and high-quality public realm that puts people first and promotes active lifestyles | Public rights of way and waterways | Align policies for Public Rights of Way across Cambridgeshire and Peterborough |
| | | Improve access to the green spaces for all |
| | | Develop a network which is safe and encourages healthy activities |
| | | Ensure new development is integrated into the Public Rights of Way network without damaging the countryside |
| | | Ensure high quality, definitive information, maps and records are available on the network |
| | | Ensure the network is complete to meet the needs of todays’ users and land managers |

| Objective | Policy Theme | Policies |
|---|---|---|
| | | Support better land and waterway management |
| | Promoting and raising awareness of sustainable transport options | Support travel plan development and implementation of travel plan measures within workplaces to ensure healthy, safe, low carbon travel options for commuters are actively encouraged and supported |
| | | Ensure the adoption and enforcement of local travel plan guidance, for new planning applications |
| | | Promote existing and new walking and cycling routes to commuters and residents |
| | | Continue to promote cycle training in schools and for adults |
| | | Improve availability, type and quality of information on sustainable modes ensuring health and air quality benefits are emphasised |
| | Supporting and promoting health and wellbeing | Reducing physical inactivity through active travel infrastructure, education, training and promotion |
| | | Reducing air pollution through supporting zero and low emissions transport options and developing green infrastructure |
| | | Improving street scene / public realm to improve safety |
| | | Increasing ability to access health care and leisure facilities / amenities |
| | | Increasing ability to access to wider opportunities - employment, social activities |
| 8. Ensure transport initiatives improve air quality across the region to exceed good practice standards | Improving air quality | Reducing vehicle emissions |
| | | Keeping emissions low in the future |
| | | Improving public health |
| 9. Deliver a transport network that protects and enhances our natural, historic and built environments | Protecting our natural environment | Protection and enhancement of the natural environment |
| | | Improving sustainable access to the natural environment |
| | | Delivering green infrastructure |
| | Enhancing our built environment and protecting our historic environment | Support to enhance our built environment and protect our historic environment |
| 10: Reduce emissions to as close to zero as possible to minimise the impact of transport and travel on climate change | Reducing the carbon emissions from travel | Utilising new technologies as they become available to minimise the environmental impacts of transport |
| | | Managing and reducing transport emissions |
| | | Encouraging and enabling sustainable alternatives to the private car including reducing the need to travel |

Source: Steer 2019 The Cambridgeshire and Peterborough Local Transport Plan

### Table 3: Modal Policies

| Policy Theme | Policy |
|---|---|
| 11. Walking | Support an increased number of walking trips by establishing safe, interconnected pedestrian connections between key destinations across our cities and towns |
| 12. Cycling | Enhance and expand the existing cycle networks in Cambridge and Peterborough and develop or improve cycling links to the surrounding settlements |

| Policy Theme | Policy |
|---|---|
| | Enhance the cycle network within market towns with high quality links to key destinations and in rural areas provide cycle routes which connect to public transport hubs as well as key destinations such as major employment sites and secondary schools |
| | Ensure that cycle parking is secure, conveniently located and meets demand |
| | Ensure that new developments provide a high-quality cycling environment as well as linkages into the existing cycle network and new links to key destinations where needed |
| | Promote cycling as a healthy, convenient and environmentally friendly mode of transport to residents, businesses and visitors |
| 13. Delivering a seamless public transport system | Explore new methods of ticketing to improve the ease and affordability of travel, including across transport modes and operators |
| | Improve journey information to maximise the ease of travelling by public transport |
| | Support the delivery of new and improved integrated, multi-modal transport hubs |
| | Support additional Park and Ride provision, in conjunction with CAM, where fully integrated into local transport networks |
| 14. Rural transport services | Explore different mechanisms to help deliver a more integrated, coherent rural transport network, in collaboration with operators, local councils, communities and stakeholders |
| | Work with operators to develop a frequent, attractive rural bus network, forming the backbone of the rural public transport network |
| | Support local community transport, fully integrated into the rural public transport network, for communities not served by the bus or rail network |
| 15. Improving public transport in our towns and cities | Support the continued development of urban bus networks by working in partnership with bus operators and local authorities to improve service quality, reliability and frequency |
| | Deliver transformational mass transit within our cities to support growth and deliver a step-change in accessibility |
| | Support measures to better manage demand for road space following the provision of high-quality public transport infrastructure |
| 16. Travelling by coach | Providing sufficient space and appropriate infrastructure for coach services |
| | Integrating coach services with wider public transport and highway networks |
| 17. Travelling by train | Support measures to deliver a more reliable, integrated, passenger-friendly rail network |
| | Facilitate improvements to our rail stations to improve the experience of travelling by train |
| | Explore options to expand the rail network to link to new settlements, corridors and growth areas |
| | Support frequency and journey time enhancements on our rural and intercity rail links to improve connectivity and capacity |
| 18. The local road network | Identifying a Key Road Network |
| | Promoting more efficient use of the existing network |
| | Aligning approaches to management and maintenance |
| 19. Parking | The design of parking |
| | Managing parking demand |
| | Parking technology and implications of disruptive technology |
| 20. Making long-distance journeys by car | Improve our highway network to alleviate congestion, improve reliability and enhance our region's accessibility |
| | Develop new road corridors where required to support development and housing growth |

| Policy Theme | Policy |
|---|---|
| | Support improvements on regional and national corridors to improve accessibility to the rest of the UK and abroad |

Source: Steer 2019 The Cambridgeshire and Peterborough Local Transport Plan

## 2.3 LTP Projects

A number of LTP projects have been proposed. In order to assess the potential impacts of the proposed works on key features of designated sites, more information will be required once the initial design of the projects has been completed. Once these details are more developed, we will be able to make a more informed assessment.

## 2.4 LTP Timetable

The LTP is proposed to cover the period up to 2030.

## 2.5 Links with Previous and Future Studies

This strategic HRA is being undertaken in parallel with the SEA. The two processes will complement each other. For example, the effects identified in the HRA will be considered primarily under the biodiversity, flora, and fauna SEA objective and indirectly through other SEA objectives such as water quality, air quality, noise and pollution control.

As individual transport projects are developed these will be assessed in accordance with current planning policy. Where projects trigger the relevant thresholds within the Town and Country Planning (Environmental Impact Assessment) Regulations 2016 an environmental impact assessment will be required. Projects will also be screened under the Conservation of Habitats and Species Regulations 2017, and where deemed necessary a project specific HRA will be required. The results of the SEA and this SHRA will inform any subsequent environmental impact assessments and habitat regulation assessments.

# 3 Methodology

The methodology used for this assessment is broadly based on the Design Manual for Roads and Bridges (DMRB), Volume 11, Section 4 HD44/09 – Assessment of Implications on European sites. The DMRB guidance has been used as it is a comprehensive guidance for large linear schemes and is directly applicable to the types of projects that would be proposed under the LTP.

Statutory European (and European Offshore Marine) sites include:

- Special Protection Areas (SPA) and potential SPAs (pSPA);
- Special Areas of Conservation (SAC) and candidate SAC (cSAC);
- Sites of Community Importance (SCIs) which have been adopted by the European Commission but have not yet been formally designated by the government of the Member State; and
- Sites that are identified or required as compensatory sites for adverse effects on European sites, cSAC, pSPA and proposed or listed Ramsar sites.

Collectively these sites are termed Natura 2000 sites. In the UK, Ramsar sites (as protected under the Ramsar Convention 1971) are afforded the same level of protection as designated Natura 2000 sites as a matter of policy. These sites, which are considered to be 'wetlands of international importance' are designated based on criteria set out in the Ramsar Convention. They are sites that either 'contain representative rare or unique wetland types' or are sites of international importance for conserving biological diversity'. Species and habitats involved in the 'Ramsar Selection Criteria' also require consideration under the Habitats Regulations as if they were designated Natura 2000 features.

## 3.1 Data Search

A data search of available information has been undertaken of the following websites:

- Natural England (NE)[1]; and
- Joint Nature Conservation Committee (JNCC)[2].

The JNCC designated sites information and Environment Agency (EA) Core Site Management Plans were accessed to obtain data on the key features of the European sites and their management. This information was used to assess the anticipated impact of the Plan on the key species of the designated sites. Relevant sites are those that are defined as having primary reasons and/or qualifying features that may be impacted by the implementation of the LTP.

## 3.2 Study Area

The Plan has the potential to impact ecological features such a habitats and/or species beyond the confines of the scheme area itself. The territory covered by the LTP is shown in Figure 1. The SHRA study area comprises the geographic area within which the Zone of Influence (ZoI) is likely to occur. A ZoI includes:

- Areas where there is physical disturbance to European sites;

[1] www.gov.uk/government/organisations/natural-england
[2] www.jncc.gov.uk

- Areas where there will be land take and habitat removal which may have a direct or indirect impact on a key feature of a European site;
- Areas where there is a risk of an impact on a watercourse which may result in an impact on a key feature of a European site; and
- Areas where there is a risk of an increase in air, noise and light pollution which may have an impact on a key feature of on a European site.

The following zones have been adopted taking account of mobile species that live in a metapopulation that may occur outside of the LTP territory but may still interact with the territory (as outlined in DMRB HD44/09 Chapter 4.10):

- An area within 30km of the LTP territory for SACs or cSACs that are designated for bats;
- An area within 20km of the LTP territory for SACs or cSACs designated for otters; and
- An area within 2km of the LTP territory for SACs, cSACs, SPAs, pSPAs, and Ramsar Sites where key features do not include bat species or otters.

The above zones account for mobile species such as birds, bats, otters and fish species, which have ranges well outside the boundary of the designated sites. The distances have been taken from the boundary of the LTP territory. This assessment is based on our understanding of the behaviour and requirements of each species on a precautionary basis[3]. European sites outside the territory covered by the LTP have been considered because it is a stated aim of the LTP to "improve inter-regional connectivity and access to key national and international gateways to enhance business connectivity, support tourism, and facilitate trade" and so it is inherent that the LTP might impact on European sites outside its territory.

## 3.3 Professional Judgement

The use of professional judgement has been used for the assessment of potential impacts of any anticipated effects of the LTP. This professional judgement is based on the ecological principals, scientific evidence and the qualifications and experience of the authors, checkers and approvers of this report.

In undertaking this assessment, the authors have made decisions in accordance with the precautionary principle as included within the Habitats Directive, Habitats Regulations and supported in case law. This principle requires that consent cannot be granted unless it can be ascertained that there will be no adverse effect on the integrity of the designated site and that the conservation objectives should prevail where there is uncertainty or that harmful effects will be assumed in the absence of evidence to the contrary. The precautionary principle will apply when there is;

- Identification of potentially negative effects resulting from a phenomenon, product or procedure; and
- A scientific evaluation of risks which, because of the insufficiency of the data, their inconclusive or imprecise nature, makes it impossible to determine with sufficient certainty the risk in question.

## 3.4 Assessment of Impacts

The assessment of the impacts of the LTP on European sites will be undertaken using the professional judgement of the authors, the checker and approver. All contributors to this

[3] DMRB Volume 11 Section 4 HD44/09 http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section4/hd4409.pdf

assessment will assess, check and review the potential impacts, the significance of these impacts and the potential impact of the plan on the conservation objectives of the European sites. The assessment of the LTP is based on the interventions and the associated ZoI from those interventions, developed using the authors' professional judgement.

## 3.5 In-combination Effects

The in-combination effects of other plans or projects have been identified from the following sources:

- UK Government strategies and plans;
- Local and unitary development plans;
- Regional transport plans;
- Statutory environment bodies;
- Projects that are under construction or are planned; and
- Projects that are currently under consideration with the local planning authorities.

### 3.5.1 UK Government Strategies and Plans

A search of the UK government website on the 22/01/2019 identified the following strategies:

Department for Transport Road Investment Strategy 2015 -2020[4]

"The Strategic Road Network (SRN, or the network) is entering a time of transformation. The management of the SRN is being reformed, with the Highways Agency becoming Highways England, a government owned strategic highways company (the Company). Long term strategic planning and funding of the network is also being introduced through the first Road Investment Strategy (RIS), a suite of documents of which this Strategic Vision is part. These changes are underpinned by a step-change in investment in our strategic roads, worth over £15 billion to 2021. Taken together, this scale of reform and investment has allowed us to dramatically increase our ambitions for the SRN."

### 3.5.2 Regional Transport Plans

Local transport plans for neighbouring authorities have been consulted to determine any potential trans-regional effects. The LTPs for Rutland, Suffolk and Central Bedfordshire have also published HRA of their LTPs.

Norfolk

Norfolk's 3rd Local Transport Plan, Connecting Norfolk, sets out the strategy and policy framework for transport up to 2026[5]. The policy themes of the plan are:

- Managing and maintaining the transport network;
- Sustainable growth;
- Strategic connections;
- Transport emissions;

[4] https://www.gov.uk/government/publications/road-investment-strategy-for-the-2015-to-2020-road-period

[5] https://www.norfolk.gov.uk/-/media/norfolk/downloads/what-we-do-and-how-we-work/policy-performance-and-partnerships/policies-and-strategies/roads-and-transport/norfolk-transport-plan-for-2026.pdf?la=en&hash=054A0C88BC2D430A37E41FD6ACB1EFA657FC8739

- Road Safety; and
- Accessibility.

Suffolk

Suffolk's 3rd Local Transport Plan[6] sets out the county council's long-term transport strategy to 2031. The accompanying HRA predicts a likely significant effect due to habitat loss, disturbance of birds and pollution. Mitigation measures proposed in the HRA to counter these impacts have been adopted into the LTP. The policy themes of the plan are:

- Maintaining (and in the future improving) our transport networks;
- Tackling congestion;
- Improving access to jobs and markets; and
- Encouraging a shift to more sustainable travel patterns.

Hertfordshire

The plan[7] covers the period up to 2031. The Plan has the following objectives:

- Improve access to international gateways and regional centres outside Hertfordshire;
- Enhance connectivity between urban centres in Hertfordshire;
- Improve accessibility between employers and their labour markets;
- Enhance journey reliability and network resilience across Hertfordshire;
- Enhance the quality and vitality of town centres;
- Preserve the character and quality of the Hertfordshire environment;
- Reduce carbon emissions;
- Make journeys and their impact safer and healthier; and
- Improve access and enable participation in everyday life through transport

Central Bedfordshire

The Local Transport Plan[8] sets out the Council's aims and objectives to 2026. The accompanying HRA does not identify any likely significant effects on European sites. The Plan has the following objectives:

- Increase the ease of access to employment by sustainable modes;
- Reduce the impact of commuting on local communities;
- Increase the number of children travelling to school by sustainable modes of transport;
- Improve access to healthcare provision;
- Ensure access to food stores and other local services particularly in local and district centres;
- Enable access to a range of leisure, cultural and tourism facilities for residents and visitors alike by a range of modes of transport;
- Enable the efficient and reliable transportation of freight;
- Encourage the movement of freight by sustainable modes;
- Minimise the negative impacts of freight trips on local communities; and
- Reduce the risk of people being killed or seriously injured.

[6] https://www.suffolk.gov.uk/assets/Roads-and-transport/public-transport-and-transport-planning/2011-07-06-Suffolk-Local-Plan-Part-1-lr.pdf

[7] https://www.hertfordshire.gov.uk/media-library/documents/about-the-council/consultations/ltp4-local-transport-plan-4-complete.pdf

[8] http://centralbedfordshire.gov.uk/Images/transport-strategy_tcm3-7901.pdf

Bedford

This LTP[9] runs from 2011 to 2021. The plan has the following objectives:

- To provide a reliable and efficient transport system, in order to support a strong local economy and facilitate sustainable growth;
- To deliver improvements that encourage a reduction in transport emissions and greenhouse gases, in order to tackle climate change and develop a low carbon community capable of adapting to the impacts of climate change;
- To promote greater equality of opportunity by providing opportunities for all residents to access key services and facilities;
- To contribute to better safety, security and health by reducing death, injury or illness from transport and promoting travel modes that are beneficial to health;
- To encourage and support a sustainable transport system that contributes to a healthy natural and urban environment; and
- To gain a better understanding of travel behaviour in and out of the Borough, in order to make informed decisions on how people can be encouraged to make "smarter" sustainable travel choices.

Northampton

This LTP[10] runs to 2026. The plan has six strategic aims:

- Fit for the Future – creating a transport system that supports and encourages growth and plans for the future impacts of growth, whilst successfully providing benefits for the County;
- Fit for the Community – through the transport system help to maintain and create safe, successful, strong, cohesive and sustainable communities where people are actively involved in shaping the places where they live;
- Fit to Choose – ensuring that the people of Northamptonshire have the information and the options available to them to be able to choose the best form of transport for each journey that they make;
- Fit for Economic Growth – creating a transport system that supports economic growth, regeneration and a thriving local economy and successfully provides for population and business growth;
- Fit for the Environment – to deliver a transport system that minimises and wherever possible reduces the effect of travel on the built, natural and historic environment; and
- Fit for Best Value - being clear about our priorities for investment and focusing on value for money by prioritising what we spend money on and how it can be beneficial for the county as a whole and search for alternative sources of funding.

Rutland

Rutland's 4th LTP Moving Rutland Forward[11] covers the period to 2036 and is currently in draft. The accompanying HRA does not identify any likely significant effects on European sites. The plan has been developed with the following vision:

[9] http://bbcdevwebfiles.blob.core.windows.net/webfiles/Files/LTP3_Strategy_09_Feb_2011.pdf

[10] https://www3.northamptonshire.gov.uk/councilservices/northamptonshire-highways/transport-plans-and-policies/Documents/Northamptonshire%20Transportation%20Plan%20-%20Fit%20for%20Purpose.pdf

[11] https://www.rutland.gov.uk/_resources/assets/attachment/full/0/72383.pdf

- To facilitate delivery of sustainable population and economic growth;
- To meet the needs of our most vulnerable residents; and
- To support a high level of health and wellbeing (including combating rural isolation).

Lincolnshire

The 4th Lincolnshire LTP[12] runs to 2023. The plan has the following objectives:

- To assist the sustainable economic growth of Lincolnshire, and the wider region, through improvements to the transport network;
- To improve access to employment and key services by widening travel choices, especially for those without access to a car;
- To make travel for all modes safer and, in particular, reduce the number and severity of road casualties;
- To maintain the transport system to standards which allow safe and efficient movement of people and goods;
- To protect and enhance the built and natural environment of the county by reducing the adverse impacts of traffic, including Heavy Goods Vehicles (HGVs);
- To improve the quality of public spaces for residents, workers and visitors by creating a safe, attractive and accessible environment;
- To improve the quality of life and health of residents and visitors by encouraging active travel and tackling air quality and noise problems; and
- To minimise carbon emissions from transport across the county.

### 3.5.3 Statutory Environment Bodies

In England statutory environment bodies include Natural England (NE), the Forestry Commission (FC) and the EA sponsored by the Department for Environment, Food and Rural Affairs (Defra). A search of these organisation's websites on the 23/01/2019 identified the following plans and projects.

Great Fen Project Cambridgeshire[13]

"With two of the last fragments of fen - Woodwalton Fen and Holme Fen - under threat, plans to link the two nature reserves began in the late 1990s. The Great Fen was officially born in 2001. It was named after a large area of wild fens shown in the same area on local maps, from the days before the land was drained for farming. In 2001 the Great Fen partner organisations came together, forming a Steering Group Committee and employing the first Great Fen member of staff.

The Great Fen was originally a 50-year vision, but thanks to much hard work and the support of many individuals and organisations, major milestones have already been achieved.

After just over a decade, more than 50% of the land of the Great Fen is now owned by the Great Fen partners with 866ha of land in restoration and 1,519ha managed for nature conservation (including the two National Nature Reserves of Woodwalton Fen and Holme Fen)."

Anglian Water and Cambridge Water Company

[12] https://www.lincolnshire.gov.uk//Download/102928

[13] http://www.greatfen.org.uk/

Anglian Water and Cambridge Water Company cover the areas of Peterborough and Cambridgeshire. A search of the company websites on the 22/01/2019 identified the following strategy documents;

- South Staffs Water incorporating Cambridge Water Company Water Resources Management Plan 2014[14] Cambridge Region; and
- Anglian Water Revised Draft Water Resources Management Plan 2019[15].

### 3.5.4 Projects Under Construction or Planned

Road Projects

A search of the Highways England website for road projects within the Cambridgeshire and Peterborough Authority boundaries on the 23/01/2019 identified the following projects:

- A47 Wansford to Sutton dualling - The A47 from Wansford to Sutton is a 2.5km section of the A47 between the A1/A47 junction and an existing roundabout at Nene Way. This is to be upgraded to a dual carriageway. Start 2020 End 2021;
- A47 Guyhirn maintenance works - Works will include vegetation clearance, the installation of a safety barrier (VRS) and stabilisation of the westbound slope along the A47;
- A47 Guyhirn junction - This is a scheme to improve the Guyhirn junction. Start date 2020, End date 2022;
- A14 Cambridge to Huntingdon - An upgrade to the A14 between Ellington, west of Huntingdon, to the Milton junction on the Cambridge Northern Bypass. Includes widening the A1 between Brampton and Alconbury. Work officially started in November 2016 and the new road is expected to open to traffic by the end of 2020;
- A428 Black Cat to Caxton Gibbet - Improving the A428 near St Neots. 2020 to 2025 Start of works – if approved, construction is expected to proceed in 2021/22; and
- A1 / A428 junction at Wyboston Flyover repair - A series of overnight closures from 16 July to mid-October 2019 at this junction to repair the flyover.

Rail Projects

A search of the Network Rail website on the 22/01/2019 identified the following project:

- The East West Rail scheme[16] - this scheme will re-establish a rail link between Cambridge and Oxford to improve connections between East Anglia and central, southern and western England. Network Rail have been working to identify a route to extend the Western Section of East West Rail to Cambridge, allowing it to connect with the East Coast Mainline and enable train services to operate between Oxford and Cambridge and onto Norfolk and Suffolk. The geographical corridor of Bedford to Cambridge via Sandy was confirmed in February 2016 as offering the best value for all. A detailed study is underway that will explore options for the eastern section of East West Rail. It will consider ways to enhance the rail services that run from Cambridge to Norwich and Ipswich and will look at the possibility of building a new

14 https://www.cambridge-water.co.uk/about-us/our-strategies-and-plans/our-water-resources-plan

15 https://www.anglianwater.co.uk/about-us/our-strategies-plans-and-reports.aspx

16 https://www.networkrail.co.uk/our-railway-upgrade-plan/key-projects/east-west-rail/

station south of Cambridge – at the new Addenbrookes Hospital campus – to help tackle congestion in Cambridge.

### 3.5.5 Local and Unitary Development Plans

The Combined Authority is made up of eight founding partners across Cambridgeshire and Peterborough:

- Cambridge City Council;
- Cambridgeshire County Council;
- East Cambridgeshire District Council;
- Fenland District Council;
- Huntingdonshire District Council;
- Peterborough City Council; and
- South Cambridgeshire District Council.

Each authority has published a local development plan.

Cambridge City Council

Adopted Cambridge City Council Local Plan 2018[17]

Cambridge Local Plan Submission Sustainability Appraisal report and Habitats Regulations Screening Assessment (July 2013) and Addendum (2015, revised March 2016)[18]

East Cambridgeshire District Council

Emerging Local Plan - East Cambridgeshire Local Plan (Proposed Submission) November 2017[19]

Emerging Local Plan - East Cambridge District Council Habitats Regulation Assessment June 2018[20]

Adopted - East Cambridgeshire Local Plan April 2015[21]

Fenland District Council

Fenland Local Plan Adopted May 2014[22]

Habitats Regulations Assessment Sept 2013[23]

Huntingdonshire District Council

Emerging Local Plan – Huntingdonshire Local Plan 2036: Proposed Submission (March 2018)[24]

17 https://www.cambridge.gov.uk/local-plan-2018

18 https://www.cambridge.gov.uk/local-plan-2018

19 https://www.eastcambs.gov.uk/sites/default/files/CD05A%20Proposed%20Submission%20Local%20Plan.pdf

20 http://www.eastcambs.gov.uk/sites/default/files/HRA%20Appropriate%20Assessment%20Post%202Subission%20Plan%20-%202published%2022015.6.18.pdf

21 https://www.eastcambs.gov.uk/local-development-framework/east-cambridgeshire-local-plan-2015

22 https://www.fenland.gov.uk/media/12064/Fenland-Local-Plan---Adopted-2014/pdf/Fenland_Local_Plan-Adopted_2014.pdf

23 https://www.fenland.gov.uk/article/7045/The-Planning-Policy-Library

24 http://www.huntingdonshire.gov.uk/planning/new-local-plan-to-2036/local-plan-document-library/

Habitats Regulations Assessment May 2017 and Addendum (November 2017)[25]

Adopted Local Plan – Huntingdonshire Local Plan adopted 1995 and updated in 2002[26]

The current adopted Development Plan is made up of:

- The Core Strategy (adopted September 2009), which sets the spatial vision, objectives and strategic directions of growth to 2026;
- The Huntingdon West Area Action Plan, which was adopted in February 2011; and
- Saved policies from the Local Plan 1995 and the Local Plan Alteration 2002.

Made neighbourhood plans for:

- St Neots;
- Godmanchester; and
- Houghton and Wyton.

The Development Plan is supported by a series of other planning policy documents.

The Core Strategy, Huntingdon West Area Action Plan, Local Plan 1995 and the Local Plan Alteration 2002 will be replaced by the Local Plan to 2036 after it is adopted.

Peterborough City Council

Emerging Local Development Plans – Peterborough Local Plan (Proposed Submission) January 2018[27].

Peterborough Local Plan – Proposed Submission January 2018 Screening Report for Habitats Regulation Assessment (Update to Further Screening Report December 2016)[28]

Adopted Local Plan – Peterborough Core Strategy Development Plan Document Adopted 23rd February 2011[29].

South Cambridgeshire District Council

Adopted South Cambridgeshire Local Plan 2018[30].

South Cambridgeshire Local Plan Submission Sustainability Appraisal Report and Habitats Regulations Screening Assessment (March 2014)[31].

Sustainability Appraisal Addendum Report incorporating Habitats Regulations Assessment Screening Assessment (2015, revised March 2016)[32].

25 http://www.huntingdonshire.gov.uk/planning/new-local-plan-to-2036/local-plan-document-library/

26 http://www.huntingdonshire.gov.uk/planning/adopted-development-plans/current-local-plan/

27 https://drive.google.com/file/d/1ZwkIR2mdq3nO-DrOWi5B0U05f_njxYEb/view

28 https://drive.google.com/file/d/1xHXD4pLVphBytddQEq2Mir4f5oGPmcfp/view

29 https://www.peterborough.gov.uk/council/planning-and-development/planning-policies/local-development-plan/

30 https://www.scambs.gov.uk/planning/local-plan-and-neighbourhood-planning/the-adopted-development-plan/south-cambridgeshire-local-plan-2018/

31 https://www.scambs.gov.uk/planning/local-plan-and-neighbourhood-planning/the-adopted-development-plan/south-cambridgeshire-local-plan-2018/

32 https://www.scambs.gov.uk/planning/local-plan-and-neighbourhood-planning/the-adopted-development-plan/south-cambridgeshire-local-plan-2018/

### 3.5.6 Projects Currently under Consideration by Local Authorities

A planning application search of local authority planning portals was made using criteria of presence of EIA screening request dated between 16/01/2014 and 16/01/2024 (five years prior to search date and five years post search date). Residential housing sites with under 100 units have been screened out as being insignificant and not requiring major changes to infrastructure. The results of the planning portal search are presented in Appendix B.

## 3.6 Outcome of the Assessment of the Local Transport Plan

The outcome of the assessment of the LTP will allow those involved in the decision-making process to gain an insight into whether the LTP needs to be changed to avoid likely significant effects on any European site either alone or in-combination with other plans or projects. These likely significant effects may be in the form of direct impact of a key feature or the management of the feature, where mitigation is needed to maintain the key feature or their management and where compensation will be required as a last resort once all of the previous options have been exhausted.

Consultations will be undertaken as part of the assessment process, if any of the consultees consider that a likely significant effect may occur as a result of any of the policies presented in the LTP then there may be a requirement to proceed to Appropriate Assessment. Project specific Habitats Regulations Assessment will be required to determine any likely significant effects on a European site once specific projects have been sufficiently developed. The application of these assessments is regulated through the Town and Country Planning Act.

# 4 Habitat Regulations Assessment Framework

In accordance with Article 6 (3) of Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive), as transposed into national law under the Conservation of Habitats and Species Regulations 2017, a HRA is required before consent can be given to a plan (or project) not directly connected with, or necessary to the management of a Natura 2000 site which may give rise to significant effects upon that Natura 2000 site.

In accordance with the Habitats Directive, Member States must adopt measures that maintain and restore habitats listed on Annex IVa and IVb and species listed on Annex II at a 'favourable conservation status' (as defined in Articles 1 and 2). Member States are also required to contribute to a coherent European ecological network (referred to as the 'Natura 2000 Network') by designating Ramsar sites, SACs, SPAs and SCIs. This HRA refers to all designated nature conservation sites are referred to as "European sites".

The HRA process consists of four parts and is termed differently dependent upon whether the HRA is considering a plan or project. The term 'Task' is used in reference to a step of a HRA of a plan and the term 'Stage' in reference to a step of a HRA of a project.

A Competent Authority is defined under Regulation 7 within the Habitats Regulations to include any Minister, government department, public or statutory undertaker, public body of any description or person holding a public office. They have a duty to ensure that the requirements of the Habitats Regulations are satisfied prior to giving consent or other authorisation for a plan or project. The Competent Authority must consult with a Statutory Nature Organisation (eg Natural Resources Wales, Natural England or Scottish Natural Heritage) when deciding whether a plan or project will have an adverse effect. For this Strategic HRA, Natural England are anticipated to act as the Competent Authority.

There are five principle tasks in the HRA Process (Table 4), this report and subsequent consultations will aid CPCA in any decision as to whether the next task is required.

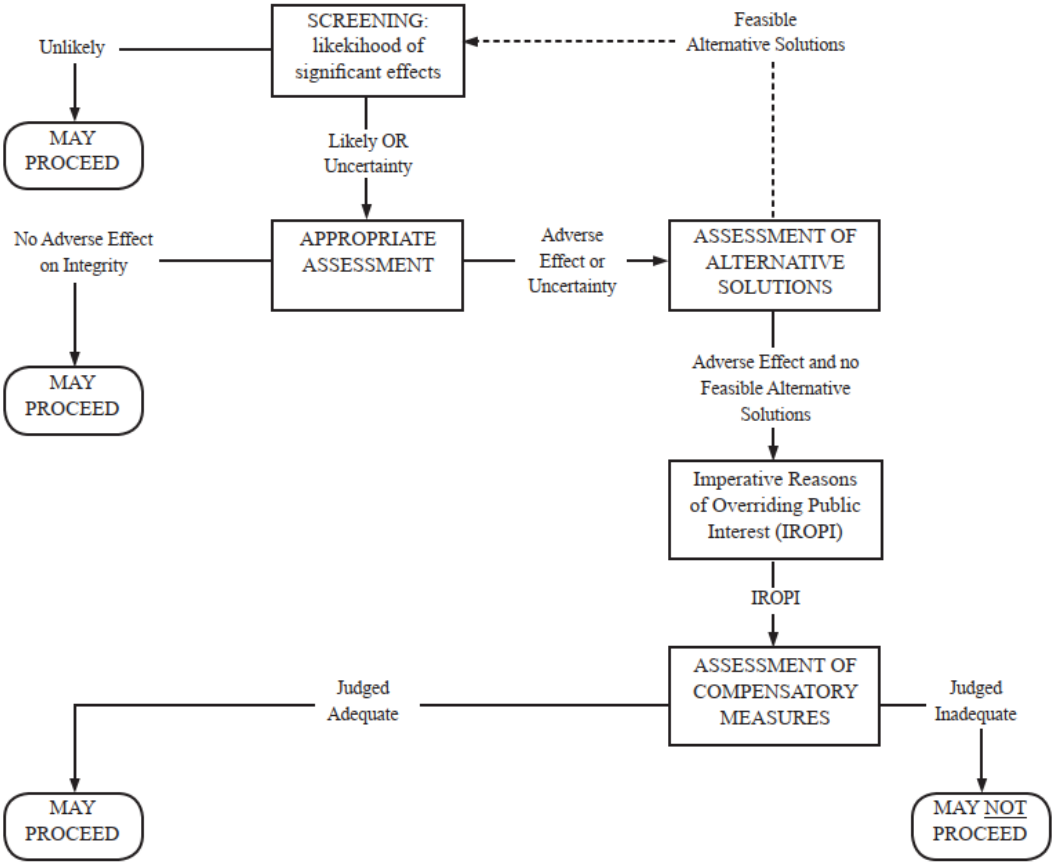
**Table 4: HRA Screening Process for a plan**

| Task | Description |
|---|---|
| 1. Screening | Screening is the determination of whether there are likely significant effects upon the relevant features of European Sites.<br>Screening comprises the identification of designated sites within the Zone of Influence. Following this, an assessment of the conservation objectives for each European site is then completed (based on the management plans or the SSSI objectives as appropriate).<br>In-combination effects (identification of potential increased effects in combination with other plans and projects) are also considered. At the level of a Strategic Habitats Regulations Assessment, this comprises an assessment of other plans and proposals on the wider scale (i.e. national, regional and local development plans or similar scale proposals) which are likely to overlap in terms of spatial and temporal effects.<br>The screening itself comprises identification of whether the proposed scheme / development is a source of likely significant effects on the identified European sites. |

| Task | | Description |
|---|---|---|
| | | A significant effect on a European site is that which could undermine the conservation objectives and/or management of the site. The likelihood of it occurring is judged on a case-by-case basis, taking account of the precautionary principle and the local circumstances of the site.<br>Proposals to mitigate any significant effects (where effectiveness can be proven), are not considered as part of Task 1 (Screening). If the screening process determines a likely significant effect without mitigation the assessment must proceed to Task 2. |
| 2. | Appropriate Assessment | Appropriate Assessment is triggered if screening identifies the potential for likely significant effects resulting from the proposed development / scheme / plan. Mitigation can be included at this stage to mitigate any likely significant effects and then screened again including the mitigation. This can be either as a standalone effect, or in-combination with other developments / schemes / plans (including alterations to existing proposals). |
| 3. | Assessment of Alternative Solutions | If the further mitigation measures prescribed at Task 2 cannot avoid adverse effects on the integrity of a European site, this process examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the European site. This stage also includes consideration of the effects of there being no scheme at all – the 'do nothing' approach, which serves to identify the likely future environmental baseline in the absence of the scheme. |
| 4. | Imperative Reasons of Overriding Public Interest | If no suitable alternative solutions are identified, Task 4 requires an assessment of compensatory measures where, in the light of an assessment of Imperative Reasons of Overriding Public Interest ("IROPI"), it is deemed that the project or plan should proceed. The IROPI justification may relate to either:<br>• Human health, public safety, or beneficial consequences of primary importance to the environment; or<br>• Any other imperative reasons of overriding public interest, having sought a prior opinion from the European Commission.<br>Consultation with other competent authorities will be required. In making this assessment, it is important to recognise that it will be appropriate to the likely scale, importance and impact of the proposed plan or project. A key outcome of the Appropriate Assessment is to identify whether the integrity of the European site(s) is likely to be adversely affected by the plan/project and whether the conservation status of the primary interest features of the site could be impacted. If it is impossible to avoid or mitigate the adverse impact, it must be demonstrated that there is Imperative Reasons of Overriding Public Interest (IROPI). This is a last resort and should be avoided if possible. |
| 5. | Compensatory Measures | Task 5 would involve the identification of compensatory measures and the assessment of the effects of these measures. The Habitats Directive requires that such measures employed 'ensure the overall coherence of the network of European sites as a whole is protected'.<br>Compensation measures can include (for example and non-exhaustively):<br>• The creation of or re-creation of a comparable habitat which can in time be designated as a European site (and in the meantime is protected as a matter of government policy as if it were a fully designated European site); or<br>• The creation or re-creation of a comparable habitat as an extension to an existing European site.<br>Evidence must be provided to ensure that the compensatory measures are sufficient to offset the likely harm caused by the proposed development. |

Each task determines whether further tasks in the process are required. The first task identifies likely significant effects by identifying the presence or absence of significance indicators. If the conclusion of Task 1 is that there will be no significant effects on the European site, there is no requirement to undertake further tasks. All the Tasks in the assessment process, including those beyond appropriate assessment are shown overleaf in Figure 2.

**Figure 2: The Habitats Regulations Assessment Process**




Source: DMRB HD44/09

## 4.1 Task 1 Screening Method

This report includes the information required to facilitate the Task 1: Screening. Through this process, the likelihood of significant effects as a result of the LTP are assessed. If it is identified that any of the options is likely to result in a significant effect, then this triggers the next task of the assessment - Task 2: Appropriate Assessment.

Task 1 consists of the following key steps as detailed below:

1. Conducting a desktop study and obtaining background data to identify European site(s) and their qualifying features which occur within the zone of influence of the plan;
2. Identifying the Conservation Objectives of the identified sites;
3. Reviewing and assessing the sensitivity of the qualifying features and the likely significant effects of the implementation of the plan on the conservation objectives of the European site(s); and
4. Assessing in-combination effects of the proposed development with other plans and projects in the area.

# 5 Identification and Management of the European Sites

## 5.1 Identification of European Sites

The following European sites are within the ZoI (as outlined in Section 4) and will therefore be assessed. The location of these European sites is shown on Drawing 402819-MMD-XX-00-GIS-Y-0004 in Appendix A.

**Table 5: Special Areas of Conservation and their key qualifying features**

| Special Area of Conservation | Annex I habitats that are a primary reason for selection of this site | Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site | Annex II species that are a primary reason for selection of this site | Annex II species present as a qualifying feature, but not a primary reason for site selection | Distance of the SAC feature to the closest part of the plan |
|---|---|---|---|---|---|
| **Ouse Washes** | - | - | Spined loach (*Cobitis taenia*) | - | Within the territory of the Plan |
| **Nene Washes** | - | - | Spined loach (*Cobitis taenia*) | - | Within the territory of the Plan |
| **Orton Pit** | Hard oligo-mesotrophic waters with benthic vegetation of *Chara spp* | - | Great Crested Newt (*Triturus cristatus*) | - | Within the territory of the Plan |
| **Fenland** | Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)<br>Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* | - | - | Spined loach (*Cobitis taenia*)<br>Great crested newt (*Triturus cristatus*) | Within the territory of the Plan |
| **Portholme** | Lowland hay meadows (*Alopecurus pratensis, Sanguisorba officinalis*) | - | - | - | Within the territory of the Plan |
| **Devils Dyke** | Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) | - | - | - | Forms the boundary of the territory |
| **Eversden and Wimpole Woods** | - | - | Barbastelle bats (*Barbastella barbastellus*) | - | Within the territory of the Plan |

| Special Area of Conservation | Annex I habitats that are a primary reason for selection of this site | Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site | Annex II species that are a primary reason for selection of this site | Annex II species present as a qualifying feature, but not a primary reason for site selection | Distance of the SAC feature to the closest part of the plan |
|---|---|---|---|---|---|
| **Barnack Hills and Holes** | Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) | - | - | - | Within the territory of the Plan |

Source: JNCC website (www.JNCC.gov.uk)

**Table 6: Special Protection Areas and Ramsar sites and their key qualifying features**

| Special Protection Area and Ramsar Site | Key Qualifying Features | Distance of the SPA feature to the closest part of the plan |
|---|---|---|
| **Nene Washes** | The site supports an important assemblage of nationally rare breeding birds. In addition, a wide range of raptors occur through the year. The site also supports several nationally scarce plants, and two vulnerable and two rare British Red Data Book invertebrate species have been recorded.<br>Species/populations occurring at levels of international importance.<br>Species with peak counts in winter:<br>Tundra swan (*Cygnus columbianus bewickii*), NW Europe 694 individuals, representing an average of 2.3% of the population (5-year peak mean 1998/9-2002/3) | Within the territory of the Plan |
| **Ouse Washes** | The site is one of the most extensive areas of seasonally-flooding washland of its type in Britain.<br>The site supports several nationally scarce plants, including small water pepper (*Polygonum minus*), whorled water-milfoil (*Myriophyllum verticillatum*), greater water parsnip (*Sium latifolium*), river water-dropwort (*Oenanthe fluviatilis*), fringed water-lily (*Nymphoides peltata*), long-stalked pondweed (*Potamogeton praelongus*), hair-like pondweed (*Potamogeton trichoides*), grass-wrack pondweed (*Potamogeton compressus*), tasteless water-pepper (*Polygonum mite*) and marsh dock Rumex palustris. Invertebrate records indicate that the site holds relict fenland fauna, including the British Red Data Book species large darter dragonfly (*Libellula fulva*) and the rifle beetle (*Oulimnius major*).<br>The site also supports a diverse assemblage of nationally rare breeding waterfowl associated with seasonally-flooding wet grassland.<br>Assemblages of international importance:<br>Species with peak counts in winter: 59,133 waterfowl (5-year peak mean 1998/99-2002/2003)<br>Species/populations occurring at levels of international importance<br>Species with peak counts in winter:<br>Tundra swan (*Cygnus columbianus bewickii*), NW Europe 1,140 individuals, representing an average of 3.9% of the population (5-year peak mean 1998/9-2002/3)<br>Whooper swan (*Cygnus cygnus*), Iceland/UK/Ireland 653 individuals, representing an average of 3.1% of the population (5-year peak mean 1998/9-2002/3)<br>Eurasian wigeon (*Anas penelope*), NW Europe 22,630 individuals, representing an average of 1.5% of the population (5-year peak mean | Within the territory of the Plan |

| Special Protection Area and Ramsar Site | Key Qualifying Features | Distance of the SPA feature to the closest part of the plan |
|---|---|---|
| | 1998/9-2002/3)<br>Gadwall (*Anas strepera strepera*), NW Europe 438 individuals, representing an average of 2.5% of the GB population (5-year peak mean 1998/9-2002/3)<br>Eurasian teal (*Anas crecca*), NW Europe 3,384 individuals, representing an average of 1.7% of the GB population (5-year peak mean 1998/9-2002/3)<br>Northern pintail (*Anas acuta*), NW Europe 2,108 individuals, representing an average of 3.5% of the population (5-year peak mean 1998/9-2002/3)<br>Northern shoveler (*Anas clypeata*), NW & C Europe 627 individuals, representing an average of 1.5% of the population (5-year peak mean 1998/9-2002/3) | |
| **Upper Nene Valley Gravel Pits** | Assemblages of international importance: Species with peak counts in winter: 23,821 individual water birds (5-year peak mean 1999/2000 – 2003/04)<br>Species/populations occurring at levels of international importance<br>Species with peak counts in winter:<br>Mute swan (*Cygnus olor*) 629 individuals – wintering 5-year peak mean 1999/2000 – 2003/04 1.7% Britain<br>Gadwall (*Anas Strepera*) 773 individuals – wintering 5-year peak mean 1999/2000 – 2003/04 2.0% *strepera,* NW Europe (breeding) | Within the territory of the Plan |
| **Wood Walten Fen** | The site is within an area that is one of the remaining parts of East Anglia which has not been drained. The fen is near natural and has developed where peat-digging took place in the 19th Century. The site has several types of open fen and swamp communities.<br>The site supports two species of British Red Data Book plants, fen violet, (*Viola persicifolia*) and fen wood-rush (*Luzula pallidula*). Woodwalton also supports a large number of wetland invertebrates including 20 British Red Data Book species. Aquatic beetles, flies and moths are particularly well represented. | Within the territory of the Plan |
| **Chippenham Fen** | A spring-fed calcareous basin mire with a long history of management, which is partly reflected in the diversity of present-day vegetation.<br>The invertebrate fauna is very rich, partly due to its transitional position between Fenland and Breckland. The species list is very long, including many rare and scarce invertebrates characteristic of ancient fenland sites in Britain.<br>The site supports diverse vegetation types, rare and scarce plants. The site is the stronghold of Cambridge milk parsley (*Selinum carvifolia*). | Within the territory of the Plan |
| **Wicken Fen** | One of the most outstanding remnants of the East Anglian peat fens. The area is one of the few which has not been drained. Traditional management has created a mosaic of habitats from open water to sedge and litter fields.<br>The site supports one species of British Red Data Book plant, fen violet (*Viola persicifolia*), which survives at only two other sites in Britain. It also contains eight nationally scarce plants and 121 British Red Data Book invertebrates. | Within the territory of the Plan |
| **Breckland** | The site qualifies under Article 4.1 of t Directive (79/409/EEC) as it is used regularly by 1.0% or more of the Great Britain populations of the following species listed in Annex I in any season:<br>Stone curlew (*Burhinus oedicnemus*) 115 pairs – breeding 5 year mean (1994 – 98) 60.1% GB<br>Nightjar (*Caprimulgus europaeus*) 415 males – breeding Count as at 1998 12.2% GB<br>Woodlark (*Lullula arborea*) 430 pairs – breeding Count as at 1997 28.7% GB | 1km east |

Source: JNCC

# 6 Characteristics of the European Sites

Table 7 details the characteristics of the European Sites in terms of the vision, current status and the vulnerabilities of the sites.

**Table 7: Vision and Management of the European Sites**

| European Site | Vision of the site | Current status of species or habitats and vulnerabilities | |
|---|---|---|---|
| | | Species or habitats | Status and vulnerabilities |
| Ouse Washes SAC, SPA and Ramsar | One of the country's few remaining areas of extensive washland habitat. A long, narrow area of seasonally flooded grassland provides flood storage, set between two channelised rivers. The dykes and rivers hold a great variety of aquatic plants and fauna. The Counter Drain, with its clear water and abundant aquatic plants, is particularly important, and a healthy population of spined loach (*Cobitis taenia*) is known to occur. Wintering water birds regularly exceed 20,000 individuals, including nationally and internationally important numbers of wintering swans and various duck species. | Spined loach<br>Plant assemblage<br>Invertebrate assemblage<br>Tundra swan<br>Whooper swan<br>Eurasian wigeon<br>Gadwall<br>Eurasian teal<br>Northern pintail<br>Northern shoveler | 15.0% FAVOURABLE: Areas of improved grassland acta as flood defence. Barriers can act as a refuge for grazing winter ducks and breeding birds. The Hundred Foot River forms a part of the River Great Ouse which runs along the south-eastern boundary of the Ouse Washes. This river supplies water, through slackers, to the internal ditch system during dry, unflooded summers. There is no botanical interest in this river and no evidence that there ever has been.<br>4.0% UNFAVOURABLE – RECOVERING: A range of actions and timetables have been detailed in the Diffuse Water Pollution Plan agreed by the Environment Agency and Natural England to address pollution of streams and rivers.<br>81% UNFAVOURABLE - NO CHANGE: Assessment based on the decline of the majority of breeding bird features, some wintering bird features and the loss of extent and quality of neutral grassland feature.<br><br>Increased flooding and water quality deterioration are identified in the Site Improvement Plan as issues that are currently impacting or threatening the designated features. |
| Nene Washes SAC, SPA and Ramsar | The Nene Washes is one of the country's few remaining areas of washland habitat. It is an extensive area of seasonally flooded wet grassland along channelised river reaches. The site is notable for the diversity of plant and associated animal life within its network of dykes. The site is important for various species of breeding and wintering water birds. Moreton's Leam, a large drainage channel running along the eastern flank of the washes, contains a high density of spined loach. | Spined loach<br>Plant assemblage<br>Invertebrate assemblage<br>Tundra swan<br>Black-tailed godwit<br>Northern pintail<br>Ruff<br>Spotted crake<br>Bewick's swan | 20.0% FAVOURABLE<br>80.0% UNFAVOURABLE – RECOVERING: The continued international importance of the site is dependent on the maintenance of a winter flooding regime and a high, but controlled, summer water table. There is concern about the long-term sustainability of summer water supplies in a region where demand for water (domestic and agricultural) is rising.<br>Hydrological changes due to flooding and water pollution, specifically elevated phosphate levels, have been identified as issues currently impacting or threatening the condition of the designated features. |
| Orton Pit SAC | Extensive pond system, occupying the disused ridge-and-furrow created by clay extraction, contains alkaline water low in nutrients.<br>The site supports a total of ten species of charophyte including one of the main English | Hard oligo-mesotrophic waters with benthic vegetation of Chara spp<br>Great Crested Newt | 29.0% FAVOURABLE: Standing open water and canals. Broadleaved, mixed and yew woodland<br>71.0% UNFAVOURABLE – RECOVERING: Standing open water and canals. Broadleaved, mixed and yew woodland. |

| European Site | Vision of the site | Current status of species or habitats and vulnerabilities | |
|---|---|---|---|
| | | Species or habitats | Status and vulnerabilities |
| | populations of bearded stonewort (*Chara canescens*). Other nationally scarce stonewort species present include *Chara aspera, C. contraria, C. pedunculata* and *Tolypella glomerata*. The distribution of Chara species across the site varies according to the age and stage of succession of the ponds.<br>Orton Pit supports a large population of great crested newts (*Triturus cristatus*). Areas of grassland and scrub around the ponds provide good conditions for breeding, feeding and sheltering newts. | | Disease and predation have been identified as threats to the great crested newt population. Other issues that are currently impacting or threatening the designated features include: Inappropriate scrub control, inappropriate weed control and illegal activity at the site (e.g. off-roading, vandalism, arson). |
| Fenland SAC | One of the best examples in the United Kingdom of molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*). Calcareous fens with Cladium mariscus and species of the Caricion davallianae, for which this is considered to be one of the best areas in the United Kingdom. The site also supports a significant presence of both spined loach (*Cobitis taenia*) and great crested newt (*Triturus cristatus*). | Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)<br>Spined loach<br>Great Crested Newt | Chippenham Fen and Snailwell Poor's Fen SSSI:<br>90.0% FAVOURABLE: Fenland, marsh and swamp (lowland) vegetation is as expected. Varied topography with diverse pools provides a range of microhabitats for macroinvertebrates. Large areas dominated by saw sedge. Mosaic of tall herb fen and shorter fen vegetation, with high flora diversity in areas. Broadleaved, mixed and yew woodland is managed with minimal intervention. Developing into interesting wet wood.<br>10.0% UNFAVOURABLE – RECOVERING: Fen meadows responding well to grazing management. Areas of fen, marsh and swamp undergrazed (2010 season) and hard rush cover increasing.<br>Wicken Fen SSSI:<br>47.0% FAVOURABLE: Mosaic of reed, water and open wet grassland seems balanced in fen, marsh and swamp areas. Understory and canopy cover within targets ranges. Managed as non-intervention woodland, trees left to grow through maturity and dead wood to be left standing. No non-native species found.<br>53.0% UNFAVOURABLE – RECOVERING: Areas of Sedge fen and Verrall's fen are gradually becoming too dry. An input of calcareous, low nutrient water is needed to maintain botanical and macroinvertebrate communities.<br>Woodwalton Fen SSSI:<br>53.0% FAVOURABLE: Broadleaved, mixed and yew woodland (lowland)<br>45.0% UNFAVOURABLE – RECOVERING: Trend towards coarse grasses dominating sward in fen, marsh and swamp (lowland) areas. Unchecked, this could lead to a decline in species diversity as areas of the fen are changed to reed bed habitat. Drivers of change are prolonged waterlogging during winter and associated phosphate and sediment inputs.<br>Reed growth cover in areas of neutral grassland (lowland) is high. Outside influences, e.g. the timing and duration of flood events and nutrient enrichment, are likely to be the primary drivers of this change. Solutions include revision of the Water Level Management Plan, increased grazing and cutting, and targeted use of herbicides |

| European Site | Vision of the site | Current status of species or habitats and vulnerabilities | |
|---|---|---|---|
| | | Species or habitats | Status and vulnerabilities |
| Portholme SAC | Considered one of the best examples of lowland hay meadow in the country. It is the largest surviving traditionally-managed meadow in the UK, with an area of 104 ha of alluvial flood meadow (7.0% of the total UK resource). There has been a long history of favourable management and very little of the site has been subject to agricultural improvement. It supports a small population of fritillary (*Fritillaria meleagris*). | Lowland hay meadows (*Alopecurus pratensis, Sanguisorba officinalis*) | UNFAVOURABLE – RECOVERING: Excessive winter flooding and the associated input of phosphates and sediments are having a detrimental effect upon habitats. |
| Devils Dyke SAC | Linear earthen barrier thought to be of Anglo-Saxon origin. Hosts the priority habitat type "orchid rich sites". Devil's Dyke consists of a mosaic of *Bromus erectus* and *Bromus erectus – Brachypodium pinnatum* calcareous grasslands. It is the only known UK semi-natural dry grassland site for lizard orchid (*Himantoglossum hircinum*). | Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) | 50.0% FAVOURABLE<br>Broadleaved, mixed and yew woodland comprises mature trees, young trees, roots covered in mosses, open scrub and plentiful dead wood.<br>Calcareous grassland determined as having acceptable extent of important plant communities, proportion of herbs in the sward, frequency of the characteristic plant species, limited agricultural weeds and other coarse species, as well as having an appropriate sward height and a lack of plant litter.<br>50.0% UNFAVOURABLE - RECOVERING<br>Low tree and scrub cover, and areas of bare ground caused by rabbit activity are cause for concern in some areas of calcareous grassland.<br>Plant community in areas is not the characteristic chalk grassland that is a notified feature of this SSSI.<br>Continued careful management by appropriate grazing and cutting, combined with rabbit control, should encourage the establishment of chalk grassland in time.<br>Inappropriate scrub control and air pollution (atmospheric nitrogen deposition) have been identified as issues that are currently impacting or threatening the condition of the features. |
| Eversden and Wimpole Wood SAC | The site comprises a mixture of ancient coppice woodland and high forest woods, likely to be of more recent origin. A colony of barbastelle (*Barbastella barbastellus*) is associated with the trees in Wimpole Woods. These trees are used as a summer maternity roost. Bats also use the site as a foraging area and as a flight path. Considered to be one of the best areas in the UK for this bat species.<br>Other bat species recorded include: Pipistrelles (*Pipistrellus pygmaeus* and *P. pipistrellus*), brown long-eared (*Plecotus auritus*), Natterer's (*Myotis nattereri*) and noctule (*Nyctalus noctule*). | Barbastelle bats | 40.0% FAVOURABLE<br>60.0% UNFAVOURABLE - RECOVERING<br>Issues impacting or threatening the condition of the features: Nearby barbastelle roosts and foraging sites are not protected, bats have limited area in which to roost/forage, woodland management, air pollution (atmospheric nitrogen deposition). |

| European Site | Vision of the site | Current status of species or habitats and vulnerabilities | |
|---|---|---|---|
| | | Species or habitats | Status and vulnerabilities |
| Barnack Hill and Holes SAC | An area of Jurassic Limestone grassland which has developed on the site of a disused mineral quarry. The grassland is of a type which is characteristic of eastern England and which is now scarce in Britain because of reclamation for agriculture. | Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (*important orchid sites) | FAVOURABLE<br>Area of species-rich grassland has increased from the 1980s baseline due to ongoing scrub removal and grazing management.<br>Average herb cover c. 70.0%; average Brachypodium cover c. 10.0%; bare ground cover low.<br>Small areas with individual ragwort plants but cover falls below the threshold for concern. Varied sward height throughout site. Litter mainly absent.<br>Change in the distribution of Man Orchid (*Aceras anthropophora*), public access/disturbance and air pollution (atmospheric nitrogen deposition) have been identified as issues that are currently impacting or threatening the condition of SAC features. |
| Upper Nene Valley Gravel Pits SPA and Ramsar | This chain of both active and disused sand and gravel pits form an extensive series of shallow and deep open waters which occur in association with a wide range of marginal features, such as sparsely-vegetated islands, gravel bars and shorelines and habitats including reedswamp, marsh, wet ditches, rush pasture, rough grassland and scattered scrub.<br>This range of habitats and the varied topography of the lagoons provide valuable resting and feeding conditions for concentrations of wintering waterbirds, especially ducks and waders. Species such as golden plover and lapwing also spend time feeding and roosting on surrounding agricultural land outside the Ramsar site. | Mute swan<br>Gadwall | 42.0% FAVOURABLE<br>Habitat is managed appropriately in some areas of the site, and key bird species remain in appropriate numbers.<br>Minimum intervention in areas of woodland. Structure is varied and there is no evidence of non-native species encroachment. Ground flora as expected for this site.<br>58.0% UNFAVOURABLE – RECOVERING<br>Parts of the site are not appropriately managed, which will eventually lead to a loss of bird feeding habitat.<br>There are a number of invasive plants recorded on the site:<br>Floating pennywort (*Hydrocotyle ranunculoides)*<br>New Zealand Pigmy Weed (*Crassula helmsii)*<br>Nuttall's Pondweed (*Elodea nuttallii)*<br>Off site development can cause disturbance. A lack of grazing within the site is leading to succession for short grassland to rank grassland, scrub and woodland, which whilst desirable in some areas can, if left unchecked, lead to loss of suitable habitat for key species.<br>Access by people and dogs both on and off of pubic rights of way is a significant cause of disturbance in some areas. The site is also subject to a variety of recreational activities including fishing & water sports. |
| Wood Walten Fen Ramsar | The site consists of a range of wetland communities, once characteristic of large areas of the East Anglian fens but now restricted to a few isolated sites. The site includes several types of open fen and swamp communities, a relict area of acid peat, some mixed fen and an important network of ditches. The site supports an appreciable assemblage of wetland plants and invertebrates. | Open fen and swamp<br>Fen violet, fen wood-rush<br>Invertebrate assemblage | 53.0% FAVOURABLE: Broadleaved, mixed and yew woodland (lowland)<br>45.0% UNFAVOURABLE – RECOVERING: Trend towards coarse grasses dominating sward in fen, marsh and swamp (lowland) areas. Unchecked, this could lead to a decline in species diversity as areas of the fen are changed to reed bed habitat. Drivers of change are prolonged waterlogging during winter and associated phosphate and sediment inputs.<br>Reed growth cover in areas of neutral grassland (lowland) is high. Outside influences, e.g. the timing and duration of flood events and nutrient enrichment, are likely to be the primary drivers of this change. Solutions include revision of the |

| European Site | Vision of the site | Current status of species or habitats and vulnerabilities | |
|---|---|---|---|
| | | **Species or habitats** | **Status and vulnerabilities** |
| | | | Water Level Management Plan (WLMP; revised 2014/15), increased grazing and cutting, and targeted use of herbicides.<br>2.0% UNFAVOURABLE - NO CHANGE: In lowland fen, march and swamp areas cover of large graminoids indicated a longer-term negative trend of larger, coarse dominant grasses taking an increasing proportion of the sward, which could lead to loss of diversity and prolonged water logging. Revision of WLMP and NNR management plan (2015 – 2020) to address issues.<br>Standing open waters and canals are adversely impacted by siltation and pollution via agricultural run-off.<br>Issues impacting or threatening the condition of the features: Water pollution (elevated nutrient levels), hydrological changes (winter flood water introduces high nutrient and silt load) and air pollution (atmospheric nitrogen deposition). |
| Chippenham Fen Ramsar | A spring-fed calcareous basin mire with a long history of management. The site is notable for its ecological diversity, from characteristic sedge fen to fen meadow, chalk grassland, willow (Alnus/Salix) carr and ancient woodland. More than 300 species of flowering plants have been recorded, including very rare, regionally rare or local species, as have several rare invertebrates (moths). A notable assemblage of breeding birds includes common snipe (*Gallinago gallinago*), Eurasian woodcock (*Scolopax rusticola*), common nightingale (*Luscinia megarhynchos*), reed warbler (*Acrocephalus spp.)* and common grasshopper warbler (*Locustella naevia*). Scrub is periodically removed, and the fen meadows are mown. | A spring-fed calcareous basin mire with a long history of management, which is partly reflected in the diversity of present-day vegetation.<br>The invertebrate fauna is very rich, partly due to its transitional position between Fenland and Breckland. The species list is very long, including many rare and scarce invertebrates characteristic of ancient fenland sites in Britain.<br>The site supports diverse vegetation types, rare and scarce plants. The site is the stronghold of Cambridge milk parsley (*Selinum carvifolia*). | 90.0% FAVOURABLE: Fenland, marsh and swamp (lowland) vegetation is as expected. Varied topography with diverse pools provides a range of microhabitats for macroinvertebrates. Large areas dominated by saw sedge. Mosaic of tall herb fen and shorter fen vegetation, with high flora diversity in areas.<br>Broadleaved, mixed and yew woodland is managed with minimal intervention. Developing into interesting wet wood. |
| Wicken Fen Ramsar | This site is a marginal remnant of the original peat fenland of the East Anglian basin. It has been preserved as a flood catchment area and its water level is controlled by sluice gates. The vegetation has a strongly mosaic character due to extensive peat-cutting and different systems of crop exploitation. Areas of the site subjected to frequent cutting have a greater species diversity including | Mosaic of habitats from open water to sedge and litter fields.<br>Fen violet. | 47.0% FAVOURABLE:<br>Woodland passed on all but one target - presence of saplings and young trees. Understory and canopy cover within target ranges. Managed as non-intervention woodland, trees left to grow through maturity and dead wood to be left standing. Dead wood apparent, although mainly fallen. No non-native species found. No evidence of deer damage, but advice given to continue to monitor for deer presence. Ground flora completely referable to NVC community although sparse cover in some dense areas. |

| European Site | Vision of the site | Current status of species or habitats and vulnerabilities | |
|---|---|---|---|
| | | Species or habitats | Status and vulnerabilities |
| | many sedges, rushes, spike rushes and marsh orchids with corresponding insect associations. Vegetation invasion by bushes resulting in closed Frangula carr, has occurred in the absence of mowing. The dykes, abandoned clay pits and the main lode support many aquatic angiosperms. Wildfowl interests include, mallard, teal, wigeon, shoveler, pochards and tufted duck. | | Balance of reed, water and open wet grassland seems balanced in the lowland fen, marsh and swamp areas. Grazing by large herbivores should continue as part of the desired management of the area. It is recommended that any future surveys of this unit should also focus on the more southerly areas which were missed in this assessment, if suitable to do so.<br>53.0%: UNFAVOURABLE – RECOVERING<br>Areas of Sedge Fen and Verrall's Fen are gradually becoming too dry and an input of calcareous, low nutrient status water is needed to maintain notified botanical communities and invertebrate habitats. A Water Level Management Plan has been implemented to address the problem.<br>Work carried out on the nearby river system to prevent flooding in the 1960s means that the site no longer receives the amount of winter water as it did in the past. This has brought about a lowering of the water table over the past 40 years. |
| Breckland SPA | The remnants of dry heath and grassland which have not been planted with coniferous plantation support heathland breeding birds, where grazing by rabbits and sheep is sufficiently intense to create short turf and open ground. These breeding birds have also adapted to live in forestry and arable habitats. Woodlark and nightjar breed in clear-fell and open heath areas, whilst stone curlews establish nests on open ground provided by arable cultivation in the spring, as well as on Breckland grass-heath. | Dry heath and grassland | FAVOURABLE<br>The component of the SPA which is close to the CPCA territory is the Breckland Farmland SSSI. This area is noted for stone curlew which use the fields for nesting. Spring sown crops that develop slowly are ideal in providing suitable nesting conditions. Areas of autumn sown crops or those that grow to greater than 10cm in height or cover greater than 10% of the ground surface by late May are generally avoided. |

Source: JNCC, Natural England

# 7 Assessment of Likely Effects

## 7.1 Screening

Each policy within the LTP has been assessed in terms of whether an adverse impact on European Sites is likely based on the description of that policy's objectives. Table 8 assesses each policy and identifies those policies where an adverse impact is possible (shaded) and also where implementing the policy is considered to lead to beneficial effects.

**Table 8: Assessment of Policies and Identification their Potential Impacts**

| Policy | Potential Impact |
|---|---|
| Deliver strategic transport and complementary connectivity infrastructure | This policy contains nine projects which have the objective of enabling development across the region. These are explored in detail in Section 7.2. No impact envisaged. |
| Early engagement with developers | No impact envisaged. This policy will encourage local planning and highway authorities to engage with developers. |
| Secure developer contributions for strategic and local infrastructure | Potential for beneficial effects through reductions in transport impacts from new developments. This policy encourages sustainable transport systems. |
| Support the provision of sustainable connectivity to and within developments | Potential for beneficial effects through reduced car journeys and improvements in air quality. |
| Ensure developers provide sufficient transport capacity and connectivity to support and meet the requirements arising from development | No impact envisaged. This policy sets out a number of requirements to be placed on developers to provide sustainable transport infrastructure, mitigate any cumulative impacts arising and make provision for monitoring targets for reducing transport impacts. |
| The design of parking | No impact envisaged. Parking provision will be targeted at urban centres and this policy encourages use of electric vehicles and requires improved walking and cycling facilities as well as links to public transport which should encourage fewer car journeys... |
| Support measures to reduce peak demand on the highway network | Potential for beneficial effects through reduced car journeys and improvements in air quality. This policy will encourage less use of private cars for short journeys and reduce the need to travel. |
| Improve the accessibility and connectivity of our public transport links to expand our labour market catchments | Potential for beneficial effects through reduced car journeys and improvements in air quality through making public transport more attractive. |
| Invest in our highway network to improve accessibility | Highway development that leads to increases in traffic may cause deterioration of European sites that are sensitive to air pollution. Road runoff may become polluted which could increase pollutant loadings on surface watercourses receiving rainfall run off. New roads located adjacent to European sites may increase disturbance to key species. |
| Support improvements to our transport infrastructure to enable efficient access for freight travelling to Felixstowe and Harwich, particularly by rail | Highway development that leads to increases in traffic may cause deterioration of European sites that are sensitive to air pollution. Road runoff may become polluted which could increase pollutant loadings on surface watercourses receiving rainfall run off. New roads located adjacent to European sites may increase disturbance. |

| Policy | Potential Impact |
|---|---|
| | Increasing use of rail freight would be expected to have positive effects on air quality across the region. This policy will seek to improve existing rail freight links with the purpose of reducing HGV use of the A14. |
| Support improved road and rail connectivity to nearby airports, in particular at Stansted | Increasing the capacity of passenger rail and coach services would be expected to have positive effects on air quality across the region. This policy will encourage less reliance on private car journeys. |
| Support the region's visitor economy through efficient passenger connectivity at Harwich | Highway development that leads to increases in traffic may cause deterioration of European sites that are sensitive to air pollution. Road runoff may become polluted which could increase pollutant loadings on surface watercourses receiving rainfall run off. New roads located adjacent to European sites may increase disturbance. This policy could lead to an increased number of car journeys from Harwich along the existing road network. |
| Work in partnership with port and airport operators to encourage sustainable commuting patterns to their sites for workers commuting from within the Combined Authority | Potential for beneficial effects through reduced car journeys and improvements in air quality. This policy will encourage less reliance on single occupant car journeys and encourage for sustainable modes of transport. |
| Improving connectivity to international gateways and larger centres | Highway development that leads to increases in traffic may cause deterioration of European sites that are sensitive to air pollution. Road runoff may become polluted which could increase pollutant loadings on surface watercourses receiving rainfall run off. New roads located adjacent to European sites may increase disturbance. |
| | Increasing the capacity of passenger rail and coach services would be expected to have positive effects on air quality across the region. This policy will encourage less reliance on private car journeys. |
| Delivering an integrated transport network navigable by passengers who are visiting the region for the first time | No impact envisaged, this policy relates to the provision of passenger information. |
| Delivering sustainable transport connectivity to tourist destinations in rural areas | Potential for beneficial effects through reduced car journeys and improvements in air quality. This policy supports the creation of sustainable travel options. |
| Providing sufficient space and appropriate infrastructure for coach services to manage the impacts of day visitors on our highway and parking infrastructure | Potential for beneficial effects through reduced car journeys and improvements in air quality. This policy will seek to make tourist journeys by coach more attractive. |
| Invest in our rail and highway networks to allow our firms, organisations and workers to trade and travel easily across the country and abroad | Highway development that leads to increases in traffic may cause deterioration of European sites that are sensitive to air pollution. Road runoff may become polluted which could increase pollutant loadings on surface watercourses receiving rainfall run off. New roads located adjacent to European sites may increase disturbance. |
| | Increasing the capacity of passenger and freight rail services would be expected to have positive effects on air quality across the region. This policy will encourage less reliance on private car journeys and make using rail for freight more attractive. |
| Improve local connectivity to bring firms and organisations in our towns and cities closer together | No impact envisaged. Any changes to urban transport patterns would not be expected to effect European Sites. This policy will encourage walking, cycling and use of mass transit systems. |
| Promoting rail freight | Potential for beneficial effects through increasing use of rail freight with positive effects on air quality across the region. This policy will encourage moving freight onto the rail system. |

| Policy | Potential Impact |
|---|---|
| Promoting and enforcing appropriate Heavy Commercial Vehicle routing | No impact envisaged. This policy will encourage commercial vehicles to use the strategic road network rather than minor roads. |
| Promoting sustainable urban freight distribution | No impact envisaged, any changes to freight movements in urban areas would not be expected to have any effect on European Sites. |
| Improving road freight facilities | No impact envisaged. This policy seeks to improve the provision of driver rest areas and encourage urban edge click and collect as well as freight consolidation to reduce vehicles entering urban areas. |
| Supporting efficient air freight and the aviation sector | No impact envisaged. This policy will maintain existing access provisions to airports. |
| Managing the risks to the transport network presented by climate change | No impact. This policy will require any new development to take account of climate change effects. |
| Sustainable road network maintenance | No impacts envisaged. This policy will encourage use of sustainable materials and promote asset management systems that reduce environmental impacts. |
| Utilising proven technologies as they become available to help the transport network adapt to the challenges presented by climate change | No impacts envisaged. This policy will encourage the adoption of appropriate technology. |
| Investigating the feasibility of harmonising highways and transport asset maintenance standards and performance indicators | No impact envisaged. This policy deals with the management of maintenance. |
| Supporting highway authorities in minimising the whole life costs of the highway | No impact envisaged. This policy deals with cost control. |
| Addressing the challenges of climate change and enhancing our communities and environment | Measures which address climate change impacts are unlikely to cause significant negative effects on European Sites and may cause improvements through improved air and water quality. |
| A multi-agency approach to improving road safety | No impact envisaged. This policy covers the management of safety across various responsible organisations. |
| Continuous and comprehensive monitoring and evaluation of key road safety indicators | No impact envisaged. This policy requires the authority to manage safety across the transport network. |
| Support improvement in road user behaviour through education, training and publicity programmes | No impact envisaged. This policy deals with education. |
| Adoption of the Safe System Approach into the mainstream of highway engineering | No impact envisaged. This policy deals with modifying highway infrastructure where safety improvements have been identified. |
| Addressing personal safety and security issues | No impact envisaged. This policy deals with safety of members of the public. |
| Improving the security of public transport stops, stations and hubs | No impact envisaged. This policy covers passenger safety. |
| Supporting and promoting demand-responsive community transport services | Potential for beneficial effects through reduced car journeys and improvements in air quality. This policy will encourage community transport schemes. |
| Facilitating access to education and wider mobility for vulnerable children | No impact envisaged. This policy deals with the provision of transport for a small number of people. |
| Improving the accessibility of transport infrastructure | No impact envisaged. This policy deals with accessibility to transport systems. |
| Promoting the provision of accessible transport information | No impact envisaged. This policy deals with provision of information. |

| Policy | Potential Impact |
|---|---|
| Optimise the use of new technologies in improving accessibility | No impact envisaged. This policy deals with accessibility to transport systems. |
| Improve our public transport to provide an affordable alternative to the car | Potential for beneficial effects through reduced car journeys and improvements in air quality. This policy will encourage improved provision of public transport. |
| Improve the affordability of travelling by bus and rail | Potential for beneficial effects through reduced car journeys and improvements in air quality. This policy will make using public transport more attractive. |
| Access to education | No impact envisaged. This policy may lead to reduced private car journeys by provision of transport to educational centres, but this is not expected to have any effects on European Sites. |
| Access to non-emergency healthcare and other key services | No impact envisaged. This policy may lead to reduced private car journeys by provision of transport to healthcare facilities, but this is not expected to have any effects on European Sites. |
| Digital inclusion | No impact is envisaged. This policy deals with information technology. |
| Promote and support research, innovation and engagement work undertaken by Smart Cambridge | No impact is envisaged. This policy promotes the use of information technology to manage data. |
| Provide the infrastructure which will enable the uptake and optimisation of new transport and digital connectivity technologies | Potential for beneficial effects through increased use of electric vehicles reducing emissions and improving air quality. This policy encourages the use of technology to monitor and manage vehicle movements which may increase transport efficiency, reducing vehicle emissions. |
| Guiding the development of a regulatory framework under which new transport technology providers operate | No impact is envisaged. This policy deals with regulating technology. |
| Align policies for Public Rights of Way across Cambridgeshire and Peterborough | No impact is envisaged. This policy seeks to promote a common management plan across the combined authority. |
| Improve access to the green spaces for all | Increased public access to European sites could cause deterioration of habitats and disturbance of species. |
| Develop a network which is safe and encourages healthy activities | No impact is envisaged. This policy deals with pedestrian safety. |
| Ensure new development is integrated into the Public Rights of Way network without damaging the countryside | No impact is envisaged. This policy will protect existing right of way from development. |
| Ensure high quality, definitive information, maps and records are available on the network | No impact is envisaged. This policy deals with the provision of information. |
| Ensure the network is complete to meet the needs of todays' users and land managers | No impact is envisaged. This policy seeks to enhance the public rights of way network where appropriate. |
| Support better land and waterway management | No impact is envisaged. This policy considers the management of green spaces. |
| Support travel plan development and implementation of travel plan measures within workplaces to ensure healthy, safe, low carbon travel options for commuters are actively encouraged and supported | Potential for beneficial effects through reduced car journeys and improvements in air quality. |
| Ensure the adoption and enforcement of local travel plan guidance, for new planning applications | Potential for beneficial effects through reduced car journeys and improvements in air quality. |
| Promote existing and new walking and cycling routes to commuters and residents | Potential for beneficial effects through reduced car journeys and improvements in air quality. |

| Policy | Potential Impact |
|---|---|
| Continue to promote cycle training in schools and for adults | Potential for beneficial effects through reduced car journeys and improvements in air quality. |
| Improve availability, type and quality of information on sustainable modes ensuring health and air quality benefits are emphasised | Potential for beneficial effects through reduced car journeys and improvements in air quality. |
| Reducing physical inactivity through active travel infrastructure, education, training and promotion | Potential for beneficial effects through reduced car journeys and improvements in air quality. |
| Reducing air pollution through supporting zero and low emissions transport options and developing green infrastructure | Any measures implemented through this policy would have beneficial effects on European Sites through reduced air pollution. |
| Improving street scene / public realm to improve safety | No impact envisaged. This policy will have no effects on European Sites. |
| Increasing ability to access health care and leisure facilities / amenities | No impact envisaged. This policy will have no effects on European Sites. |
| Increasing ability to access to wider opportunities - employment, social activities | No impact envisaged. This policy will have no effects on European Sites. |
| Reducing vehicle emissions | Any measures implemented through this policy would have beneficial effects on European Sites through improved air quality. |
| Keeping emissions low in the future | Any measures implemented through this policy would have beneficial effects on European Sites through improved air quality. |
| Improving public health | This policy is aimed at encouraging use of sustainable modes of transport and so should lead to improvements in air quality through reduction in car journeys. |
| Protection and enhancement of the natural environment | Any measures implemented through this policy would have beneficial effects on European Sites. |
| Improving sustainable access to the natural environment | No impact is envisaged. This policy will make sustainability a key factor in managing access to sensitive sites. |
| Delivering green infrastructure | No impact is envisaged. This policy focusses on providing non-vehicle transport routes in urban areas. |
| Support to enhance our built environment and protect our historic environment | No impact envisaged. This policy deals with development in the built environment. |
| Utilising new technologies as they become available to minimise the environmental impacts of transport | Any measures implemented through this policy would have beneficial effects on European Sites. |
| Managing and reducing transport emissions | Any measures implemented through this policy would have beneficial effects on European Sites. |
| Encouraging and enabling sustainable alternatives to the private car including reducing the need to travel | Any measures implemented through this policy would have beneficial effects on European Sites. |
| Support an increased number of walking trips by establishing safe, interconnected pedestrian connections between key destinations across our cities and towns | No impact envisaged. This policy will be used in urban areas to increase the number of walking trips made over short distances. |
| Enhance and expand the existing cycle networks in Cambridge and Peterborough and develop or improve cycling links to the surrounding settlements | Potential for beneficial effects through reduced car journeys and improvements in air quality. |
| Enhance the cycle network within market towns with high quality links to key destinations and in rural areas provide cycle routes which | Potential for beneficial effects through reduced car journeys and improvements in air quality. |

| Policy | Potential Impact |
|---|---|
| connect to public transport hubs as well as key destinations such as major employment sites and secondary schools | |
| Ensure that cycle parking is secure, conveniently located and meets demand | Potential for beneficial effects through reduced car journeys and improvements in air quality. |
| Ensure that new developments provide a high-quality cycling environment as well as linkages into the existing cycle network and new links to key destinations where needed | Potential for beneficial effects through reduced car journeys and improvements in air quality. |
| Promote cycling as a healthy, convenient and environmentally friendly mode of transport to residents, businesses and visitors | Potential for beneficial effects through reduced car journeys and improvements in air quality. |
| Explore new methods of ticketing to improve the ease and affordability of travel, including across transport modes and operators | No impact is envisaged. Increasing use of mass transit would be expected to have positive effects on air quality across the region. |
| Improve journey information to maximise the ease of travelling by public transport | No impact is envisaged. Increasing use of mass transit would be expected to have positive effects on air quality across the region. |
| Support the delivery of new and improved integrated, multi-modal transport hubs | No impact is envisaged. Increasing use of mass transit would be expected to have positive effects on air quality across the region. |
| Support additional Park & Ride provision, in conjunction with CAM, where fully integrated into local transport networks | No impact is envisaged as there are no designated sites within towns and cities which would be affected by park and ride facilities. |
| Explore different mechanisms to help deliver a more integrated, coherent rural transport network, in collaboration with operators, local councils, communities and stakeholders | No impact is envisaged. Increasing use of mass transit would be expected to have positive effects on air quality across the region. |
| Work with operators to develop a frequent, attractive rural bus network, forming the backbone of the rural public transport network | No impact is envisaged. Increasing use of mass transit would be expected to have positive effects on air quality across the region. |
| Support local community transport, fully integrated into the rural public transport network, for communities not served by the bus or rail network | No impact is envisaged. Increasing use of mass transit would be expected to have positive effects on air quality across the region. |
| Support the continued development of urban bus networks by working in partnership with bus operators and local authorities to improve service quality, reliability and frequency | No impact is envisaged. Increasing use of mass transit would be expected to have positive effects on air quality across the region. |
| Deliver transformational mass transit within our cities to support growth and deliver a step-change in accessibility | No impact is envisaged. Increasing use of mass transit would be expected to have positive effects on air quality across the region. |
| Support measures to better manage demand for road space following the provision of high-quality public transport infrastructure | No impact is envisaged. Increasing use of mass transit would be expected to have positive effects on air quality across the region. |
| Providing sufficient space and appropriate infrastructure for coach services | No impact is envisaged. Increasing use of mass transit would be expected to have positive effects on air quality across the region. |
| Integrating coach services with wider public transport and highway networks | No impact is envisaged. Increasing use of mass transit would be expected to have positive effects on air quality across the region. |

| Policy | Potential Impact |
|---|---|
| Support measures to deliver a more reliable, integrated, passenger-friendly rail network | No impact is envisaged. Increasing use of mass transit would be expected to have positive effects on air quality across the region. |
| Facilitate improvements to our rail stations to improve the experience of travelling by train | No impact is envisaged. Increasing use of mass transit would be expected to have positive effects on air quality across the region. |
| Explore options to expand the rail network to link to new settlements, corridors and growth areas | Potential impact if new railway corridors were placed through or adjacent to European Sites. Any proposed new development would be assessed through the planning system. |
| Support frequency and journey time enhancements our rural and intercity rail links to improve connectivity and capacity | No impact is envisaged. Increasing use of mass transit would be expected to have positive effects on air quality across the region. |
| Identifying a Key Road Network | No impact envisaged. This policy will identify the strategic road network to manage its maintenance. |
| Promoting more efficient use of the existing network | Potential for beneficial effects through improvements in air quality from reduced congestion. |
| Aligning approaches to management and maintenance | No impact envisaged; this policy deals with ensuring CPCA highway maintenance activities are coordinated with Dept for Transport and Highways England. |
| The design of parking | No impact envisaged. Parking provision will be targeted at urban centres. |
| Managing parking demand | No impact envisaged. Parking provision will be targeted at urban centres. |
| Parking technology and implications of disruptive technology | No impact envisaged. Parking provision will be targeted at urban centres. |
| Improve our highway network to alleviate congestion, improve reliability and enhance our region's accessibility | Highway development that leads to increases in traffic may cause deterioration of European sites that are sensitive to air pollution. Road runoff may become polluted which could increase pollutant loadings on surface watercourses receiving rainfall run off. New roads located adjacent to European sites may increase disturbance. |
| Develop new road corridors where required to support development and housing growth | Highway development that leads to increases in traffic may cause deterioration of European sites that are sensitive to air pollution. Road runoff may become polluted which could increase pollutant loadings on surface watercourses receiving rainfall run off. New roads located adjacent to European sites may increase disturbance. |
| Support improvements on regional and national corridors to improve accessibility to the rest of the UK and abroad | Highway development that leads to increases in traffic may cause deterioration of European sites that are sensitive to air pollution. Road runoff may become polluted which could increase pollutant loadings on surface watercourses receiving rainfall run off. New roads located adjacent to European sites may increase disturbance. |

Source: Mott MacDonald

The following policies are considered to have the potential for adverse effects on European sites due to the effects of their implementation:

- Invest in our highway network to improve accessibility;
- Support improvements to our transport infrastructure to enable efficient access for freight travelling to Felixstowe and Harwich, particularly by rail;
- Support the region's visitor economy through efficient passenger connectivity at Harwich;
- Improving connectivity to international gateways and larger centres;

- Invest in our rail and highway networks to allow our firms, organisations and workers to trade and travel easily across the country and abroad;
- To improve access to the green spaces for all;
- Explore options to expand the rail network to link to new settlements, corridors and growth areas;
- Improve our highway network to alleviate congestion, improve reliability and enhance our region's accessibility;
- Develop new road corridors where required to support development and housing growth; and
- Support improvements on regional and national corridors to improve accessibility to the rest of the UK and abroad.

## 7.2 Assessment of Impacts

The individual projects undertaken in accordance with the LTP are likely to involve a variety of construction and operation activities which could potentially result in a significant effect on a European site. Each policy considered to have a potential to cause an adverse effect on a European site is assessed against the direct and indirect impacts in Table 9. Table 10 assesses each policy element against anticipated impacts considered appropriate for the types of projects a transport plan would be expected to promote. Impacts have been split into direct and indirect:

- Direct Impacts
  - Habitat loss (including loss of breeding and resting sites);
  - Habitat fragmentation (including changes to habitat structure and function);
  - Wildlife casualties (due to increased frequency of traffic); and
  - Disturbance and/or displacement of species due to increased frequency of transport.
- Indirect Impacts
  - Air pollution for designated sites within 200m (DMRB Vol 11 Section 3 Part 1);
  - Noise and vibration;
  - Artificial lighting;
  - Water pollution; and
  - Contamination.

**Table 9: Policies with Potential Adverse Effects**

| Policy | Direct Effects | | | Indirect Effects | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Habitat loss (including loss of breeding and resting sites); | Habitat fragmentation (including changes to habitat structure and function); | Wildlife casualties (due to increased frequency of traffic) | Disturbance and/or displacement of species due to increased frequency of transport | Air pollution for designated sites within 200m | Noise and vibration; | Artificial lighting; | Water pollution | Contamination |
| Invest in our highway network to improve accessibility | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Support improvements to our transport infrastructure to enable efficient access for freight travelling to Felixstowe and Harwich, particularly by rail | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Support the region's visitor economy through efficient passenger connectivity at Harwich | No | No | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Improving connectivity to international gateways and larger centres; | No | No | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Invest in our rail and highway networks to allow our firms, organisations and workers to trade and travel easily across the country and abroad | No | No | Yes | Yes | Yes | Yes | No | Yes | Yes |
| To improve access to the green spaces for all | No | No | No | Yes | No | Yes | No | No | No |
| Explore options to expand the rail network to link to new settlements, corridors and growth areas | Yes | Yes | No | No | No | Yes | No | No | No |
| Improve our highway network to alleviate congestion, improve reliability and enhance our region's accessibility | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Develop new road corridors where required to support development and housing growth | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Support improvements on regional and national corridors to improve accessibility to the rest of the UK and abroad | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Source: Mott MacDonald

The LTP contains many policies, all of which act in conjunction with each other, rather than in isolation. Where a project is put forward for development it must be assessed against all the policies within the LTP to ensure that the project does not have the potential for significant adverse effects on European Sites. The direct and indirect impacts identified are assessed in terms of whether or not a potential impact would be caused in Table 10.

**Table 10: Assessment of potential impacts**

| Type of impact | Site feature(s) potentially impacted | Activity which may cause impact | Assessment of a potential impact to be caused by the plan? | Explanation/Justification |
|---|---|---|---|---|
| Habitat loss | All habitats and species | Direct land loss through construction of highway or railway.<br>Loss through increased trampling as a result of promoting walking. | No | One of the policy themes requires that the transport network protects and enhances the natural environment. Any adverse effects on a European site would directly contravene this requirement. Projects put forward to implement the LTP would be required to be located outside the zone of influence of any European site. Breckland is designated for ground nesting birds which could be vulnerable to trampling by walkers. This site is however commercial farmland not open to public access and so no significant effects are anticipated.<br>Any proposed project that was located within the zone of influence of a European site would require project level HRA. It is considered highly unlikely that a project would be proposed that had the potential for a direct impact on a European site |
| Habitat fragmentation | All habitats | Creation of new transport infrastructure could create barriers between habitats. | No | One of the policy themes requires that the transport network protects and enhances the natural environment. Any adverse effects on a European site would directly contravene this requirement. Projects put forward to implement the LTP would be required to be located outside the zone of influence of any European site.<br>Any proposed project that was located within the zone of influence of a European site would require project level HRA. |
| Wildlife casualties | Bird species<br>Bats | Policies which could generate increases in traffic. | No | The existing road network will be responsible for causalities amongst birds and those species which search for food along roads are more likely to be killed. European sites designated for birds are designated for species which would not be expected to be searching for food or nesting along roads, such as water fowl, and so these species are considered unlikely to be significantly affected.<br>The only site designated for bats, Eversden and Wimpole Wood, is remote from roads and so it is considered unlikely that a significant effect would be realised. Any proposed project that was located within the zone of influence of a European site would require project level HRA. |
| Disturbance/ displacement | Bird species | Policies which could generate increases in traffic or increase built environment. | No | Nesting and foraging birds are already conditioned to tolerate road and rail traffic on the existing network. Any increases in traffic density on the existing network will not significantly increase this existing impact.<br>Any new transport infrastructure located within the zone of influence of a European site designated for birds would require project level HRA to assess this potential effect. |
| Air pollution | Plant assemblages | Policies which lead to increases in nitrogen dioxide emissions. | No | One of the policy themes of the LTP is to conserve and enhance the environment and any projects brought forward will be assessed against this policy objective. Another policy theme is to reduce emissions in order to minimise climate change effects which would have a positive effect on air quality.<br>Most Air Quality Management Areas within the CPCA territory are associated with town and city centres. An AQMA in Peterborough overlaps the Nene Washes SAC, however this site is vulnerable to hydrological effects rather than air quality. An AQMA in Huntingdon overlaps the Portholme SAC, however this site is vulnerable to sedimentation and water pollution from phosphates rather than air quality. The diversion of the A14 to the south of the site is likely to improve air quality in the immediate vicinity of Portholme. |

| Type of impact | Site feature(s) potentially impacted | Activity which may cause impact | Assessment of a potential impact to be caused by the plan? | Explanation/Justification |
|---|---|---|---|---|
| Noise/Vibration | Breeding birds<br>Bats | Policies which lead to increases in noise or vibration. | No | One of the policy themes of the LTP is to conserve and enhance the environment and any projects brought forward will be assessed against this policy objective.<br>Sensitive species will be conditioned to accept noise and vibration from the existing road network and any increases in noise through increased traffic density are unlikely to cause a significant effect. Any maintenance of the network or upgrading of infrastructure could have a temporary effect during construction periods, however any construction work would be undertaken in accordance with standard methods to control such operations. Any work undertaken within the zone of influence of any European site would require a project specific HRA. |
| Artificial lighting | Breeding birds<br>Bats | Policies which lead to increases in light pollution. | No | Nesting birds are already conditioned to tolerate lighting on the existing road network. Any increases in light levels on the existing network will not significantly increase this impact. New lighting schemes will be designed to modern standards limiting the amount of overspill.<br>Any new transport infrastructure located within the zone of influence of a European site designated for birds would require project level HRA. |
| Water pollution | All species | Policies which could generate increases in road traffic. | No | Portholme and Nene Washes are adjacent to roads and are suffering from phosphate contamination from surface water. Fenland/Wood Walton Fen is also vulnerable to water pollution but is remote from any transport network.<br>The source of phosphates is discharges from sewage treatment works and agricultural run off with a very minor component attributable to road runoff and so it is considered unlikely that there will be any significant effect on any European site from water pollution attributable to the policies within the LTP. Any projects brought forward through the LTP which have the potential to cause water pollution would be subject to project specific HRA. |
| Contamination | All species | Policies which could generate increases in road traffic. | No | One of the objectives of the LTP is to conserve and enhance the environment and any projects brought forward will be assessed against this policy objective.<br>Contamination arising from the existing transport network is managed to prevent significant effects. Any new transport development will go through the planning process which will examine potential effects. Any potential effects on a European site will be assessed through a project specific HRA. |

Source: Mott MacDonald

## 7.3 Potential for Significant Effects on European Sites

The European sites considered within this study have varying sensitivities based on the features which make up the designation.

**Table 11: Screening Table**

| Site | Qualifying Feature | Assessment of significance | Likely significance of impacts of the plan |
|---|---|---|---|
| Ouse Washes SAC, SPA and Ramsar | Spined loach<br>Plant assemblage<br>Invertebrate assemblage<br>Tundra swan<br>Whooper swan<br>Eurasian wigeon<br>Gadwall<br>Eurasian teal<br>Northern pintail<br>Northern shoveler | This site is mostly in unfavourable condition due to the decline in features supporting breeding birds and loss of extent and quality of grassland. The site is suffering from diffuse pollution from sewage treatment works and agricultural run-off. It is considered that this site is not sensitive to any effects that might be caused by implementation of the policies within the LTP and so NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable. | NO LIKELY SIGNIFICANT EFFECT |
| Nene Washes SAC, SPA and Ramsar | Spined loach<br>Plant assemblage<br>Invertebrate assemblage<br>Tundra swan<br>Black-tailed godwit<br>Northern pintail<br>Ruff<br>Spotted crake<br>Bewick's swan | This site is mostly in unfavourable condition due to increased spring flooding and winter flood depths causing a decline in features supporting breeding birds. The site is suffering from diffuse pollution from sewage treatment works and agricultural run-off. It is considered that this site is not sensitive to any effects that might be caused by implementation of the policies within the LTP and so NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable. | NO LIKELY SIGNIFICANT EFFECT |
| Orton Pit SAC | Hard oligo-mesotrophic waters with benthic vegetation of *Chara spp*<br>Great Crested Newt | This site is mostly in unfavourable condition due to disease and predation of great crested newts, inappropriate scrub control, inappropriate weed control and illegal activity at the site. It is considered that this site is not sensitive to any effects that might be caused by implementation of the policies within the LTP and so NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable. | NO LIKELY SIGNIFICANT EFFECT |
| Fenland SAC | Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)<br>Spined loach<br>Great Crested Newt | This site is generally in unfavourable condition with pressures from grazing management and water level causing unfavourable conditions. It is considered that this site is not sensitive to any effects that might be caused by implementation of the policies within the LTP and so NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable. | NO LIKELY SIGNIFICANT EFFECT |

| Site | Qualifying Feature | Assessment of significance | Likely significance of impacts of the plan |
|---|---|---|---|
| Portholme SAC | Lowland hay meadows (*Alopecurus pratensis, Sanguisorba officinalis*) | This site is in unfavourable condition due to excessive winter flooding with phosphate diffuse pollution and sedimentation. The current upgrading of the A14 project will remove a major trunk road from the boundary of this site which will reduce pollutant loading from highway runoff and vehicle emissions. It is considered that this site is not sensitive to any effects that might be caused by implementation of the policies within the LTP and so NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable. | NO LIKELY SIGNIFICANT EFFECT |
| Devils Dyke SAC | Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) | 50.0% of the woodland and grassland habitat in this site is considered to be in favourable condition with the other 50.0% in unfavourable condition though recovering due to low tree and scrub cover and areas of bare ground caused by over grazing of rabbits. The grassland species present are also not characteristic of the chalk grassland which forms the notifiable feature. The management plan for the site sets out a regime of appropriate grazing and cutting combined with control of the rabbit population to encourage the establishment of chalk grassland. Inappropriate scrub control and air pollution (atmospheric nitrogen deposition) have been identified as issues that are currently impacting or threatening the condition of the features. The published site improvement plan has an action on Natural England to investigate causes of nitrogen deposition. The site is adjacent to the A14/A11, a strategic trunk road connecting the ports of Harwich and Felixstowe with the Midlands and Norwich with London. The LTP will advance policies to protect the existing environment and reduce emissions from vehicles which will have beneficial effects on air quality. The cause of the unfavourable condition of the site is not related to impacts associated with traffic and so NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable. | NO LIKELY SIGNIFICANT EFFECT |
| Eversden and Wimpole Wood SAC | Barbastelle bats | This site is generally in unfavourable condition due to poor protection of nearby roosting and foraging sites. The supporting habitat is sensitive to changes in air quality, particularly nitrogen and acidity. The site is isolated from any major trunk roads in the region and is some 650m at closest approach to the nearest A class road (A1198). This separation is considered sufficient to reduce any possible impacts from traffic emissions to an insignificant level and so NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable. Furthermore, the LTP has a policy to reduce emissions from vehicles which will have beneficial effects on air quality. | NO LIKELY SIGNIFICANT EFFECT |
| Barnack Hill and Holes SAC | Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (*important orchid sites) | This site is currently in favourable condition due to grazing management. Atmospheric nitrogen deposition has been identified as threatening the condition of the site. The site is located 2.2km from the nearest trunk road (A1M) and 1.7km from the nearest railway line with only minor roads approaching the site. This separation is | NO LIKELY SIGNIFICANT EFFECT |

| Site | Qualifying Feature | Assessment of significance | Likely significance of impacts of the plan |
|---|---|---|---|
| | | considered sufficient to reduce any possible impacts from traffic emissions to an insignificant level and so NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable. Furthermore, the LTP ha a policy to reduce emissions from vehicles which will have beneficial effects on air quality. | |
| Upper Nene Valley Gravel Pits SPA and Ramsar | Mute swan<br>Gadwall | This site is generally in unfavourable condition due to inappropriate grazing management with invasive species present. The site is located outside the territory of the LPA and so NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable. | NO LIKELY SIGNIFICANT EFFECT |
| Wood Walten Fen Ramsar | Open fen and swamp<br>Fen violet, fen wood-rush<br>Invertebrate assemblage | This site is generally in favourable condition. Habitat succession from grassland to reeds due to poor water management is being countered by revision to the water level management plan with increased grazing and cutting. It is considered that this site is not sensitive to any effects that might be caused by implementation of the policies within the LTP and so NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable. | NO LIKELY SIGNIFICANT EFFECT |
| Chippenham Fen Ramsar | A spring-fed calcareous basin mire with a long history of management, which is partly reflected in the diversity of present-day vegetation.<br>The invertebrate fauna is very rich, partly due to its transitional position between Fenland and Breckland. The species list is very long, including many rare and scarce invertebrates characteristic of ancient fenland sites in Britain.<br>The site supports diverse vegetation types, rare and scarce plants. The site is the stronghold of Cambridge milk parsley (*Selinum carvifolia*). | The site is almost entirely in favourable condition. The site is isolated from the trunk road network being over 2km from the nearest (A14). It is considered that this site is not sensitive to any effects that might be caused by implementation of the policies within the LTP and so NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable. | NO LIKELY SIGNIFICANT EFFECT |
| Wicken Fen Ramsar | Mosaic of habitats from open water to sedge and litter fields.<br>Fen violet. | This site is generally in unfavourable condition with pressures from grazing management and water level causing unfavourable conditions. It is considered that this site is not sensitive to any effects that might be caused by implementation of the policies within the LTP and so NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable. | NO LIKELY SIGNIFICANT EFFECT |
| Breckland SPA | Dry heath and grassland | The site is in favourable condition and is managed farmland. As long as the land continues to be used sensitively with crop rotation | NO LIKELY SIGNIFICANT EFFECT |

| Site | Qualifying Feature | Assessment of significance | Likely significance of impacts of the plan |
|---|---|---|---|
| | | patterns that favour ground nesting birds the condition of the site is not expected to deteriorate. It is considered that this site is not sensitive to any effects that might be caused by implementation of the policies within the LTP and so NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable. | |

Source: Mott MacDonald Limited

## 7.4 Projects

Various projects will be taken forward in order to implement the LTP. Each proposed project is assessed by the local planning authority in terms of its potential for environmental impacts and effects on European sites. Appendix B lists various projects that have gone through the planning system, many of which have undergone screening in accordance with the Town and Country Planning (Environmental Impact Assessment) (England) Regulations. The established planning mechanisms take account of in-combination effects a proposed development would have, and these are assessed before the proposal achieves consent.

It is considered reasonable to assume that there will be no likely significant effects arising from adoption of the LTP in combination with projects that have been already consented.

The LTP refers to projects that are currently being planned or developed. These are discussed below.

**Cambridgeshire Autonomous Metro**

This system will operate on key corridors connecting Cambridge with outlying settlements such as Waterbeach, St Ives, Cambourne, Trumpington, Mildenhall and Granta Park. It is envisaged that it will operate with electrically powered vehicles on existing highway or segregated routes. When this system is operational it is envisaged that there will be fewer car journeys leading to improvements in air quality. It is considered reasonable to assume no likely significant effect on any European site from this project.

**Smart Cambridge and Peterborough Smart City**

These initiatives re studying ways in which adopting new technologies and data analysis can be used to improve transport provision amongst other areas. They have already trialled autonomous transport systems, developed web-based applications to allow passengers to access services, supported shared and on-demand mobility services operating in the area, worked with operators towards shared ticketing systems and worked with Cambridge City Council to develop an electric charging network. All of these initiatives are geared towards increasing the use of mass transit and reducing single occupancy car journeys as well as encouraging the transition to electrically powered vehicles. It is considered reasonable to assume no likely significant effect on any European site from these projects.

### Alconbury Travel Hub

Creating hubs where existing and new mass transit systems converge will make travelling by mass transit easier and more attractive, reducing car journeys and so reducing air pollution. Alconbury is not located within the ZoI of any European site and therefore no significant effect is reasonably predicted.

### Rail Services

The LTP includes new railway stations at Soham, Waterbeach and south Cambridge and is exploring the feasibility of providing new stations south of Peterborough as well as connecting Wisbech. The east-west rail arc between Cambridge and Oxford will connect communities along this route with direct rail services. Improvements to the existing rail system will encourage fewer car journeys, improving air quality. It is considered reasonable to assume no likely significant effect on any European site from this project.

Network Rail have a number of projects aimed at increasing freight capacity from Felixstowe and are planning to dual the single track from Ely to Soham and make network improvements to increase train speeds and lengths. All of these measure swill lead to improvements in air quality and reduce road traffic.

### Road Schemes

A number of road schemes are being developed.

A10 – dualling this road between Milton (north Cambridge) and Waterbeach in conjunction with a new segregated public transport link is designed to reduce congestion and reduce journey times. An extension of the dualling to Ely is also being considered. Implementation of this project should reduce car journeys and lead to improvements in air quality along the road corridor. There are no European Sites close to the A10, the nearest being Wicken Fen 4.5km away. It is considered reasonable to assume no likely significant effect on any European site from this project.

A47 – completion of the dualling between Wisbech and the A1(M) west of Peterborough along with improvements at the A141 junction. This road lies adjacent to the Nene Washes SAC/Ramsar site at its eastern end. As noted previously this site is in unfavourable condition due to increased spring flooding and winter flood depths causing a decline in features supporting breeding birds. The site is suffering from diffuse pollution from sewage treatment works and agricultural run-off. The dualling of the A47 and junction improvements will reduce congestion along the single-track sections of road and it is considered no likely significant effect is reasonably predicted.

A505 – there is a long term aim to dual this road from its junction with the A11 and Royston to the south. The A505 is not located within the ZoI of any European Site and so no significant effect is reasonably predicted.

M11 - there is a long term aim to upgrade this road to a 3-lane smart motorway between Stansted airport and the Girton interchange north of Cambridge. The M11 is not located within the ZoI of any European Site and so no significant effect is reasonably predicted.

A428 – dualling the last section of this road between Caxton Gibbet and St Neots. This road is not located within the ZoI of any European Site and so no significant effect is reasonably predicted.

A1 – upgrading to motorway standard. This road is not located within the ZoI of any European Site and so no significant effect is reasonably predicted.

A605 King's Dyke Level Crossing Bypass – the existing level crossing causes traffic congestion on the A605. A new bridge over the railway will prevent this congestion. The site is 1.1km from the Nene Washes Ramsar/SAC. Reducing stationary traffic on the road should improve air quality and so no significant effect is reasonably predicted.

Huntingdon 3rd River Crossing – this project in feasibility stage will consider linking the A141 with the A14 east of Huntingdon with a new crossing of the River Great Ouse. The nearest European site is Portholme SAC, over 2.0km away. No significant effect is reasonably predicted.

# 8 In Combination Effects

Where the LTP interacts with other plans or projects there is a potential for in-combination effects.

## 8.1 Plans

The Local Plan for each local authority forms the main policy document for delivering development within each area. The Habitat Regulations Assessments of these Local Plans conclude that there are no likely significant effects on any European sites reasonably anticipated through adoption of the Local Plans; except for Huntingdon District Council where an Appropriate Assessment (Task 2 of the assessment process) has determined potential effects relating to recreational use and flooding of Portholme SAC and the Ouse Washes SAC/SPA/Ramsar site. It is considered reasonable to conclude that the Local Transport Plan will not have any in-combination effects on these impact pathways at these two European sites.

Local transport plans for the surrounding local authorities have been reviewed; all propose similar policies to CPCA. Three of the adjoining local authorities, Suffolk County Council, Rutland County Council and Central Bedfordshire Council have published HRA of their Local Transport Plans. Each of these three HRAs also conclude no likely significant effects on European sites following adoption of the LTPs.

It is considered reasonable to assume that there will be no likely significant effects arising from adoption of the LTP in combination with other plans.

## 8.2 Projects

The planning portals for each planning authority have been searched for projects being progressed in the region. Any potential effects on European sites in combination with the policy and projects have been assessed in Table 12.

**Table 12: Screening Table**

| Project | Site | Assessment of significance | Likely significance of impacts of the plan |
|---|---|---|---|
| Former Ridgeons site, Cromwell Road, Cambridge | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting. It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project |
| Old Press/Mill Lane (University of Cambridge) | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting. It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project |
| Plots 1 To 21 Cambridge Science Park Cambridge Cambridgeshire | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting. It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project |
| Cambridge City Council Mill Road Depot Mill Road Cambridge Cambridgeshire CB1 2AZ | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting. It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project |
| Lot S3 North West Development Site Madingley Road Cambridge Cambridgeshire | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting. It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project |
| ARM 100 Peterhouse Technology Park Fulbourn Road Cambridge Cambridgeshire CB1 9PT | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting. It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project |
| West Cambridge Site Madingley Road Cambridge Cambridgeshire | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting. It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project |
| Scotsdales Garden Centre 41 Market Street Fordham Ely Cambridgeshire CB7 5LH | Chippenham Fen (Ramsar) and Fenland SAC | This project is within 2.0km of the Chippenham Fen (Ramsar) and Fenland SAC designated for calcareous basin mire and great crested newts. The site is a disused garden centre which has been intensively managed. It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project |

| Project | Site | Assessment of significance | Likely significance of impacts of the plan |
|---|---|---|---|
| Site of Former Eastfield Nursery Eastrea Road Whittlesey Cambridgeshire | Nene Washes Ramsar and SPA | This project is within 2.0km of the Nene Washes Ramsar and SPA designated for rare bird assemblages and the three spined loach. The site is a disused garden centre which is being redeveloped into housing. It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Land East of 18 To 52 And Including 28 And 30 Peterborough Road Farcet | Eversden, SAC, Wimpole Wood SAC, Orton Pit SAC and Nene Washes SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>There are no impact pathways to Orton Pit or Nene Washes SACs which are 2.0km from the site.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Land North of Mill Road Buckden | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Land East of Houghton Hill Farm Houghton Road St Ives | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Land North of The Memorial Hall School Lane Alconbury | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Land West of Park Road and The Malting On Biggin Lane Ramsey | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Land North of Wyton Piggery Cottage Sawtry Way Wyton | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Cambridge Research Park, Beach Drive, Off Ely Road (A10), | Eversden and | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |

| Project | Site | Assessment of significance | Likely significance of impacts of the plan |
|---|---|---|---|
| Landbeach, Cambridge, CB25 9TL | Wimpole Wood SAC | It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | |
| Land at Site H 1/B, Babraham Road, Sawston, Cambridgeshire | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Land north of Melbourn Science Park, East of the Moor, Melbourn, Royston, Herts | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Land To The East Of Ridgeway, Papworth Everard, Cambridgeshire | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Barrington Cement Plant, Haslingfield Road, Barrington, Cambridge, Cambridgeshire, CB22 7RQ | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Relocated Railway Station, Bannold Road, Waterbeach, Cambs | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Plots 1 to 21, Cambridge Science Park | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Land at Chesterton Sidings, Cowley Road, Milton | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Screening opinion for land off Teversham Road, Fulbourn | Eversden and | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |

| Project | Site | Assessment of significance | Likely significance of impacts of the plan |
|---|---|---|---|
| | Wimpole Wood SAC | It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | |
| Land at Rampton Road, Cottenham | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Eternit UK, Whaddon Road, Meldreth, Royston, Cambridgeshire, SG8 5RL<br>Land to west of Hall Drive, Hardwick, Cambridge | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Land at The Ridgeway, Papworth Everard | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Land to the south west of Rampton Road, Cottenham, Cambridgeshire | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| land east of New Road, Melbourn | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Land off Teversham Road, Fulbourn, Cambridge. | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |
| Northstowe Primary School | Eversden and Wimpole Wood SAC | This project is within 30.0km of the Eversden and Wimpole Wood SAC designated for Barbastelle bats. There is limited vegetation clearance and the project is in an urban setting.<br>It is considered that there are NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. | NO LIKELY IN-COMBINATION EFFECTS from the plan in combination with this project. |

Source: Mott MacDonald

# 9 Consultations

Consultations will be undertaken and will be reported in this section.

# 10 Conclusion

An assessment of likely significant effects on European sites within 2.0km (20.0km for otter SAC's and 30.0km for bat SAC's) of the Local Transport Plan was undertaken. 13 European sites were identified as being within the Zone of Influence of the Plan.

The proposed Plan is not directly connected with or necessary to the management of any of the European Sites, and consequently a screening assessment has been completed.

This screening concludes that the Local Transport Plan as a standalone plan is unlikely to result in a likely significant effect on any European site or their associated features.

Further, the assessment of in-combination effects of the plan and other plans or projects identified no likely in-combination effects.

The potential impacts of projects brought through under the terms of the Local Transport Plan will be assessed as their design progresses. Any likely significant effects arising from individual projects will be assessed and where required mitigation identified during the appropriate assessment implemented.

This HRA Task 1 screening considers that the proposed Local Transport Plan, either alone or in-combination, is not likely to have a significant effect on any European site or their associated features.

# 11 References

Chapman, C. & Tyldesley, D. 2016. Functional linkage: How areas that are functionally linked to European sites have been considered when they may be affected by plans and projects - a review of authoritative decisions. Natural England Commissioned Reports, Number207.

Department for Communities and Local Government, 2006. Planning for the Protection of European Sites: Appropriate Assessment Under The Conservation (Natural Habitats, &C) (Amendment) (England and Wales) Regulations 2006 Guidance For Regional Spatial Strategies. [pdf] Available at: http://webarchive.nationalarchives.gov.uk/20120919132719/http://www.communities.gov.uk/documents/planningandbuilding/pdf/160442.pdf

European Commission (2000) Managing Natura 2000 sites: the provisions of Article 6 of the Habitats Directive 92.43.EEC

European Commission (2002) Methodological guidance on the provisions of article 6.3 and 6.4 of the Habitats Directive 92.43.EEC

Highways Agency 2009, Design Manual for Roads and Bridges (DMRB) Volume 11 HD 44/09. Assessment of Implications on European Sites.

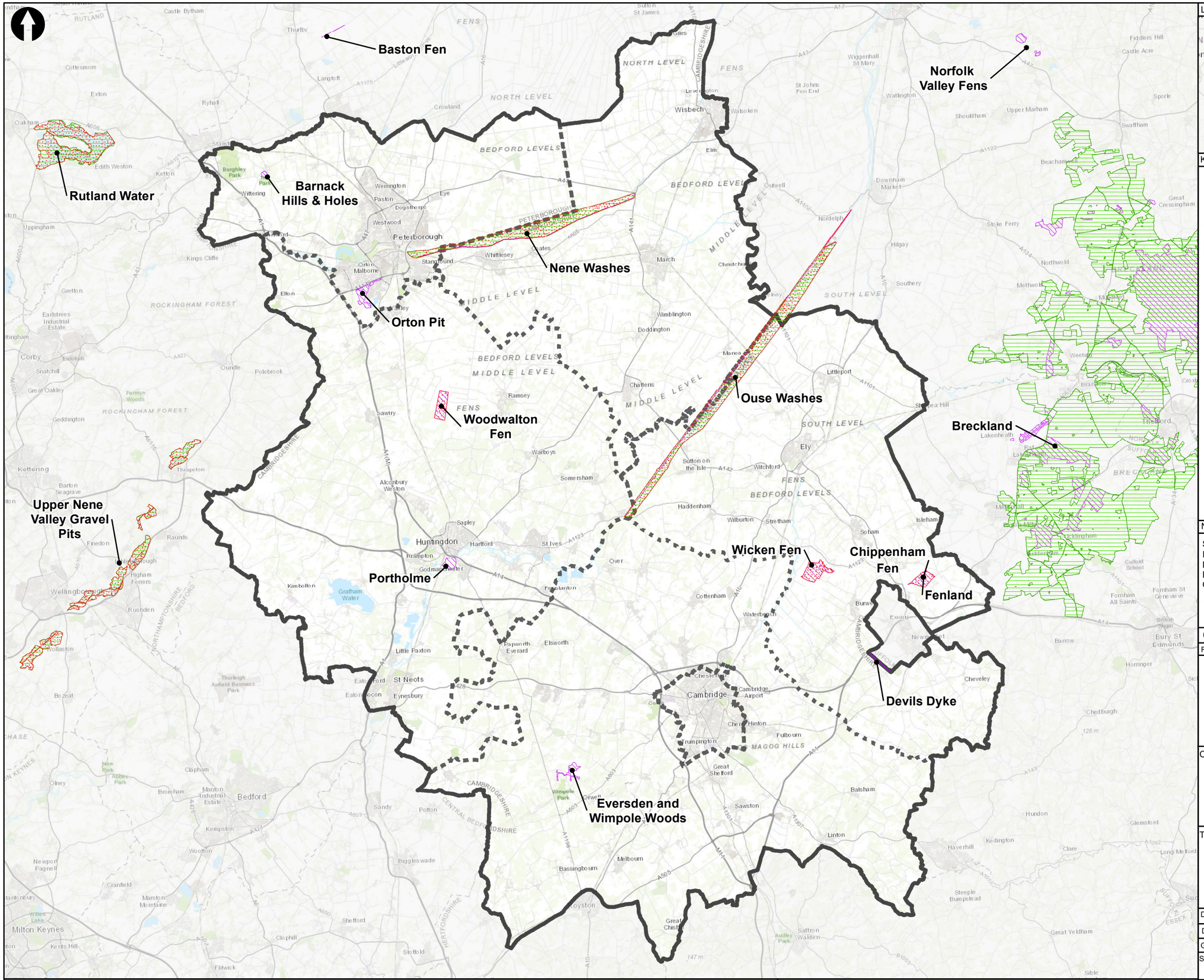
European Commission, 2001. Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. [pdf] Office for Official Publications of the European Communities. Available at: http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_assess_en.pdf

JNCC website - www.JNCC.gov.uk (All data was accessed during week commencing 25th May 2017)

Natural England, 2017. Designated Sites View. [online] Available at: https://designatedsites.naturalengland.org.uk/

# Appendices

# A. Drawings




Notes

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



| Rev | Date | Drawn | Description | Ch'k'd | App'd |
|---|---|---|---|---|---|
| 01 | 09/05/19 | NC | Local Transport Plan SEA | JB | SP |

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Client

CAMBRIDGESHIRE & PETERBOROUGH COMBINED AUTHORITY

Title

# CPCA Local Transport Plan Strategic Environmental Assessment Designated Sites

| | | | | | |
|---|---|---|---|---|---|
| Designed | N/A | | Eng Check | J Bates | |
| Drawn | N Critten | | Coordination | J Bates | |
| GIS Check | E Bacon | | Approved | S Price | |

| Scale at A3 | Status | Rev | Security |
|---|---|---|---|
| 1:310,000 | PRE | P1 | STD |

Drawing Number
402819-MMD-XX-00-GIS-Y-0004

# B. Planning Portal Search

**Cambridge City Council**

Request for EIA Screening Opinion in respect of the proposed development of the former Ridgeons site, Cromwell Road, Cambridge for the development of up to 295 dwellings, a basement car park and approximately 272m² nursery and community facility.

Ridgeons 75 Cromwell Road Cambridge Cambridgeshire CB1 3EB

Ref. No: 18/5332/SCRE | Validated: Fri 19 Oct 2018 | Status: Awaiting decision

Request for EIA Screening Opinion in respect of Old Press/Mill Lane (University of Cambridge). Redevelopment of Old Press/Mill Lane site comprising re-purposing of existing buildings, demolition and erection of new buildings for a mix of uses comprising student residential, A1,A2,A3,A4 retail floorspace, B1 office space floorspace, D1 university and teaching space, D2 leisure floorspace, landscaping, public realm and highways improvements and associated works..

Old Press Site Mill Lane Cambridge Cambridgeshire CB2 1RX

Ref. No: 18/5154/SCRE | Validated: Wed 25 Apr 2018 | Status: Awaiting decision

Request for screening opinion: Plots 1 to 21, Cambridge Science Park Demolition of existing buildings and erection of two four story buildings for B1 use and multi-storey car park, including access and landscaping.

Plots 1 To 21 Cambridge Science Park Cambridge Cambridgeshire

Ref. No: 17/1553/SCRE | Validated: Fri 01 Sep 2017 | Status: Awaiting decision

Request for EIA Screening Opinion in respect of the proposed redevelopment of the site comprising the erection of 183 dwellings together with ancillary floorspace for Community / retail use (A1, A2, A3, D1 - 72sq m), a basement car park (100 spaces), surface water pumping station, and associated open space and landscaping following demolition of all buildings at Mill Road Depot.

Cambridge City Council Mill Road Depot Mill Road Cambridge Cambridgeshire CB1 2AZ

Ref. No: 17/2057/SCRE | Validated: Mon 27 Nov 2017 | Status: Awaiting decision

Environmental Impact Assessment Screening for Lot S3 of Phase 1 of the North West Cambridge Development Construction of 184 residential units, access road, cycle parking, landscaping, utilities and associated ancillary structures

Lot S3 North West Development Site Madingley Road Cambridge Cambridgeshire

Ref. No: 17/1111/SCRE | Validated: Fri 16 Jun 2017 | Decision EIA Screening not required

This is part of the wider North West Cambridge site which was granted planning permission in February 2013 (11/1114/OUT and SS/1886/11). Subsequently superseded by the Section 73 consent (S/2036/13/VC and 13/1402/s73). The wider approved development comprises up to 3,000 dwellings, up to 2,000 student bed spaces; 100,000m² employment floorspace, of which up to 40,000m² commercial floorspace and at least 60,000m². academic floor space, up to 5,300m² gross retail floorspace; senior living, up to 6,500m²; community centre; indoor sports

provision; police; primary health care, primary school, nurseries, hotel, energy centre; and associated infrastructure including roads, pedestrian, cycle and vehicle routes, parking, drainage, open spaces and earthworks.

Request for EIA Screening Opinion in respect of the proposed development of 'ARM C', approx. 11,695m² (Class B1 Use) and associated parking, at Peterhouse Technology Park. Open for comment icon

ARM 100 Peterhouse Technology Park Fulbourn Road Cambridge Cambridgeshire CB1 9PT

Ref. No: 17/0868/SCRE | Validated: Fri 12 May 2017 | Decision: EIA Screening required

Request for EIA Screening Opinion in respect of proposed shared facilities hub for University of Cambridge, West Cambridge Site, Madingley Road.

West Cambridge Site Madingley Road Cambridge Cambridgeshire

Ref. No: 17/0735/SCRE | Validated: Mon 24 Apr 2017 | Status: Awaiting decision

**East Cambridgeshire District Council**

SCREENING OPINION - for the erection of 200 dwellings

Site Between Cherrytree Lane And Orchard Row Fordham Road Soham Cambridgeshire

Ref. No: 19/00067/SCREEN | Received: Thu 10 Jan 2019 | Validated: Thu 10 Jan 2019 | Status: Pending Consideration

SCREENING OPINION - Erection of 168 dwellings (8 self build plots) and associated access, Parking and Open space.

Land South Of Blackberry Lane Soham Cambridgeshire

Ref. No: 17/00926/SCREEN | Received: Tue 23 May 2017 | Validated: Tue 23 May 2017 | Status: Unknown

SCREENING OPINION - outline planning application for 150 new homes, a 75-bed care home and a retail unit along with public open space and associated infrastructure on approximately 9 hectares of the site.

Scotsdales Garden Centre 41 Market Street Fordham Ely Cambridgeshire CB7 5LH

Ref. No: 17/00572/SCREEN | Received: Thu 30 Mar 2017 | Validated: Thu 30 Mar 2017 | Status: Unknown

SCREENING OPINION Erection of 300 Dwellings and Associated Works

Site Northwest of Kingfisher Drive Soham Cambridgeshire

Ref. No: 16/00164/SCREEN | Received: Wed 03 Feb 2016 | Validated: Wed 03 Feb 2016 | Status: Unknown

SCREENING OPINION 126 Residential Dwellings, Open Space and Cemetery

Land West of The Cherry Tree Public House Cherrytree Lane Soham Cambridgeshire

Ref. No: 15/01569/SCREEN | Received: Thu 03 Dec 2015 | Validated: Thu 03 Dec 2015 | Status: Unknown

SCREENING OPINION 300 Dwellings

Site Northwest of Kingfisher Drive Soham Cambridgeshire

Ref. No: 15/01565/SCREEN | Received: Wed 25 Nov 2015 | Validated: Mon 21 Dec 2015 | Status: Unknown

SCREENING OPINION Food Superstore and Petrol Filling Station. Six Retail Warehouse Units. A Pub Restaurant and Associated Landscaping and Highway Enhancements.

Downham Road Playing Fields Downham Road Ely Cambridgeshire

Ref. No: 14/00434/SCREEN | Received: Tue 15 Apr 2014 | Validated: Tue 15 Apr 2014 | Status: Unknown

SCREENING OPINION Proposed Leisure Development

Land Adjacent to Ely Rugby Club Downham Road Ely Cambridgeshire

Ref. No: 14/00215/SCREEN | Received: Tue 25 Feb 2014 | Validated: Tue 25 Feb 2014 | Status: Unknown

SCREENING OPINION Development of 100 Houses and Associated Landscaping

Land South 0f 18 Wilburton Road Haddenham Cambridgeshire

Ref. No: 14/00092/SCREEN | Received: Tue 28 Jan 2014 | Validated: Tue 28 Jan 2014 | Status: Unknown

**Fenland District Council**

Screening Opinion: Construction Plant and Logistics site ( workshop, office/welfare building, car park, trailer park and storage and drainage areas)

Lattersey Field Benwick Road Whittlesey Cambridgeshire

Ref. No: F/YR18/0201/SC | Received: Mon 26 Feb 2018 | Validated: Mon 26 Feb 2018 | Status: Further information not required

Screening Opinion: Residential Development (up to 600 dwellings)

Land to the South Of Barkers Lane March Cambridgeshire

Ref. No: F/YR16/0345/SC | Received: Thu 12 May 2016 | Validated: Thu 12 May 2016 | Status: Further information not required

Screening Opinion: Residential development (139 dwellings max) with associated landscaping

The College of West Anglia Elm High Road Wisbech Cambridgeshire PE13 2SJ

Ref. No: F/YR16/0319/SC | Received: Mon 09 May 2016 | Validated: Mon 09 May 2016 | Status: Further information not required

Screening Opinion: Residential development (350 dwellings max) with associated landscaping, open space and infrastructure

Land East of Wenny Road Chatteris Cambridgeshire

Ref. No: F/YR16/0093/SC | Received: Wed 10 Feb 2016 | Validated: Wed 10 Feb 2016 | Status: Further information not required

Screening Opinion and Scoping Opinion: Residential and associated development (14.37 hectares)

Land East of Halfpenny Lane Wisbech Cambridgeshire

Ref. No: F/YR15/1125/SC | Received: Wed 23 Dec 2015 | Validated: Wed 23 Dec 2015 | Status: Further information required

Screening/Scoping Opinion: Erection of 169 dwellings with associated infrastructure and landscaping

Site of Former Eastfield Nursery Eastrea Road Whittlesey Cambridgeshire

Ref. No: F/YR15/0505/SC | Received: Wed 17 Jun 2015 | Validated: Wed 17 Jun 2015 | Status: Further information not required

**Huntingdonshire District Council**

SCREENING OPINION - Outline planning application for the demolition of two existing dwellings and erection of up to 185 dwellings with public open space, landscaping and sustainable drainage system (SuDS) and vehicular access point and separate pedestrian access from Peterborough Road and St Mary's Street. All matters reserved except for means of access

Land East Of 18 To 52 And Including 28 And 30 Peterborough Road Farcet

Ref. No: 18/70188/SCRE | Received: Wed 15 Aug 2018 | Validated: Wed 15 Aug 2018 | Status: Unknown

Screening Opinion: Up to 250 residential dwellings including 40% Affordable Housing

Land North of Mill Road Buckden

Ref. No: 18/70136/SCRE | Received: Tue 29 May 2018 | Validated: Tue 29 May 2018 | Status: Unknown

Screening Opinion: Outline planning (with all matters reserved except for means of site access) for the erection of up to 350 dwellings, provision of new internal access roads and footpaths, public open space and landscaping, surface water attenuation and associated infrastructure

Land East of Houghton Hill Farm Houghton Road St Ives

Ref. No: 18/70137/SCRE | Received: Tue 22 May 2018 | Validated: Wed 30 May 2018 | Status: Unknown

Screening Opinion: development of up to 140 residential units, open space, access and associated infrastructure.

Land North of The Memorial Hall School Lane Alconbury

Ref. No: 18/70074/SCRE | Received: Mon 26 Mar 2018 | Validated: Mon 26 Mar 2018 | Status: Unknown

Screening Opinion: Railway Track Between Woodwalton And Huntingdon Station Approach Huntingdon

Ref. No: 17/70105/SCRE | Received: Fri 19 May 2017 | Validated: Fri 19 May 2017 | Status: Unknown

Proposed Residential Development involving the Erection of 141 Dwellings, proposed access arrangements, and associated works at land to the north and south of Biggin Lane.

Land West of Park Road nd The Malting On Biggin Lane Ramsey a

Ref. No: 16/70147/SCRE | Received: Fri 09 Sep 2016 | Validated: Fri 09 Sep 2016 | Status: Unknown

Crematorium - SCREENING

Land North of Wyton Piggery Cottage Sawtry Way Wyton

Ref. No: 16/70145/SCRE | Received: Wed 31 Aug 2016 | Validated: Wed 31 Aug 2016 | Status: Unknown

**South Cambridgeshire District Council**

S/3825/18/E1 EIA screening opinion Plots 4,000 (formerly Zone X), 500 (formerly Zone W) and, 6200/6300 (formerly Part Zone Y), Cambridge Research Park, Beach Drive, Off Ely Road (A10), Landbeach, Cambridge, CB25 9TL

S/3078/18/E1 EIA Screening Opinion: Land at Site H 1/B, Babraham Road, Sawston, Cambridgeshire (160 residential units)

S/2652/18/E1 EIA Screening Opinion: Land north of Melbourn Science Park, East of The moor, Melbourn, Royston, Herts (11477 sqm GEA of office and research accommodation)

S/1026/18/E1 EIA Screening Opinion: Land To The East Of Ridgeway, Papworth Everard, Cambridgeshire (175 residential dwellings)

S/1097/18/E1 EIA Screening Opinion: for reserved matters application for 220 residential units Barrington Cement Plant, Haslingfield Road, Barrington, Cambridge, Cambridgeshire, CB22 7RQ

S/4177/17/E1 EIA Screening Opinion: Relocated Railway Station, Bannold Road, Waterbeach, Cambs

S/3156/17/E1 EIA Screening Opinion: Relocated Railway Station, Bannold Road, Waterbeach, Cambs

S/3051/17/E1 Screening Opinion: request Plots 1 to 21, Cambridge Science Park

S/1245/17/E1 Screening Opinion: Land at Chesterton Sidings, Cowley Road, Milton (Up to 1,000 residential units, up to 3,000m² of ancillary communal space, up to 1,500 m² of retail space, associated landscaping, public space, car and cycle parking, sustainable drainage and other infrastructure).

S/0626/17/E1 Screening Opinion: for land off Teversham Road, Fulbourn (110 new residential dwellings)

S/2828/16/E1 Screening Opinion: for land at Rampton Road, Cottenham (154 dwellings)

S/2228/16/E1 EIA Screening Opinion: for mixed use development (up to 150 dwellings) Eternit UK, Whaddon Road, Meldreth, Royston, Cambridgeshire, SG8 5RL

S/0113/16/E1 EIA Screening Opinion: for up to 200 dwellings, associated Land to west of Hall Drive, Hardwick, Cambridge.

S/2636/15/E1 EIA Screening Opinion: Land at The Ridgeway, Papworth Everard (215 dwellings)

S/1816/15/E1 Proposed residential development screening opinion Land to the south west of Rampton Road, Cottenham, Cambridgeshire (225 residential dwellings and 70 apartments with care)

S/2749/14/E1 Request for EIA Screening Opinion: in respect of proposed development on land east of New Road, Melbourn (199 dwellings with care home of up to 75 beds)

S/1642/14/E1 Request for Screening Opinion for Residential Development Land off Teversham Road, Fulbourn, Cambridge. 100 - 125 new residential dwellings)

S/0847/14/E1 Screening Opinion carried out by Cambridgeshire County Council for Northstowe Pr' off B1050 in the parish of Longstanton' (Primary school and pre-school)

**Peterborough City Council**

Planning application lists are online, but associated documents are not, so there is insufficient details to screen projects in or out. Various residential applications listed but number of units are not detailed, all applications currently screened out based on lack of available information.