Cambridgeshire and Peterborough Combined Authority Local Transport Plan

Community Impact Assessment

May 2019
### Issue and Revision Record

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<th>Date</th>
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<td>08/05/2019</td>
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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 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

<table>
<thead>
<tr>
<th>Goals</th>
<th>Economic</th>
<th>Social</th>
<th>Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Deliver economic growth and opportunity for all our communities</td>
<td>Provide an accessible transport system to ensure everyone can thrive and be healthy</td>
<td>Protect and enhance our environment and tackle climate change together</td>
</tr>
<tr>
<td>Objectives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Support new housing and development to accommodate a growing population and workforce, and address housing affordability issues</td>
<td>● Embed a safe systems approach into all planning and transport operations to achieve Vision Zero – zero fatalities or serious injuries</td>
<td>● Deliver a transport network that protects and enhances our natural, historic and built environments</td>
</tr>
<tr>
<td></td>
<td>● Connect all new and existing communities sustainably so all residents can easily access a good job, spreading the region’s prosperity</td>
<td>● Promote social inclusion through the provision of a sustainable transport network that is affordable and accessible for all</td>
<td>● Reduce emission to as close to zero as possible to minimise the impact of transport and travel on climate change</td>
</tr>
<tr>
<td></td>
<td>● Ensure all of our region’s businesses and tourist attractions are connected sustainably to our main transport hubs, ports and airports</td>
<td>● Provide ‘healthy streets’ and high-quality public realm that puts people first and promotes active lifestyles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Build a resilient and adaptive network that is less susceptible to human and environmental disruption, improving journey time and reliability</td>
<td>● Ensure transport initiatives improve air quality across the region to exceed good practice standards</td>
<td></td>
</tr>
</tbody>
</table>

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                                                                 | Parking |
| ---                                                                                                      |         |
| Accessing ports and airports                                                                            | Supporting and promoting health and wellbeing |
| Building a resilient and adaptive transport network to climate change                                   | Protecting our natural environment |
| Planning and designing developments sustainably                                                          | Public rights of way and waterways |
| Cycling                                                                                                  | Raising awareness of sustainable transport options |
| Delivering a seamless public transport system                                                           | Reducing the carbon emissions from travel |
| Enabling development                                                                                     | Rural transport services |
| Enhancing our built environment and protecting our historic environments                               | Safety for all – a safe systems approach |
| Ensuring transport security                                                                               | Supporting business clusters |
| Expanding labour markets                                                                                | Supporting the local visitor economy |
| Freight                                                                                                  | The future of mobility |
| Improving air quality                                                                                    | The local road network |
| Improving public transport in our towns and cities                                                       | Transport accessibility for all |
| Maintaining and managing the transport network                                                           | Transport pricing and affordability |
| Making long distance journeys by car                                                                     | 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. 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.
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):\(^2\)

<table>
<thead>
<tr>
<th>Protected characteristic</th>
<th>Equality and Human Rights Commission (EHRC) definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>A person belonging to a particular age (for example 32-year olds) or range of ages (for example 18 to 30-year olds).</td>
</tr>
<tr>
<td>Disability</td>
<td>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.</td>
</tr>
<tr>
<td>Gender reassignment</td>
<td>The process of transitioning from one gender to another.</td>
</tr>
<tr>
<td>Marriage and civil partnership</td>
<td>Marriage is a union between a man and a woman or between a same-sex couple. 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).</td>
</tr>
<tr>
<td>Pregnancy and maternity</td>
<td>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.</td>
</tr>
<tr>
<td>Race and ethnicity</td>
<td>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.</td>
</tr>
<tr>
<td>Religion and belief</td>
<td>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.</td>
</tr>
<tr>
<td>Sex</td>
<td>A man, woman or non-binary person.</td>
</tr>
<tr>
<td>Sexual orientation</td>
<td>Whether a person’s sexual attraction is towards their own sex, the opposite sex or to both sexes.</td>
</tr>
</tbody>
</table>

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:

1. Understanding the project
   Analysis of the LTP, its vision, goals, objectives and policies.

2. Evidence, distribution, and proportionality
   Review of available demographic data and other published evidence to understand potential equality risks.

3. Engagement and analysis
   Engagement, where possible, with stakeholders to gather their views.

4. Impact assessment
   Understanding the extent and scale of any impacts arising, taking mitigation measures into account.

5. Drawing conclusions and action planning
   Setting out the overall effects of the LTP and identifying opportunities and further actions to manage and mitigate.

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


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

<table>
<thead>
<tr>
<th>Major adverse</th>
<th>Moderate adverse</th>
<th>Minor adverse</th>
<th>Neutral</th>
<th>Minor beneficial</th>
<th>Moderate beneficial</th>
<th>Major beneficial</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXX</td>
<td>XX</td>
<td>X</td>
<td>0</td>
<td>✓</td>
<td>✓✓</td>
<td>✓✓✓</td>
</tr>
</tbody>
</table>

Source: Mott MacDonald, 2019
<table>
<thead>
<tr>
<th>Local transport plan objectives (OB)</th>
<th>Policy themes</th>
<th>Assessment objectives (AO)</th>
<th>Assessment guide questions: Does the policy</th>
</tr>
</thead>
</table>
| 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?  
• Help to facilitate the delivery of housing that meets the needs of the population including ensuring access to new and existing sustainable residential developments?  
• 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  
Policy theme 2.2: Expanding labour markets | AO3. To strengthen the area’s position as a growing and diverse economy, providing opportunities for all  
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?  
• Creates or addresses deficiencies for green spaces that are safe and accessible to all?  
• Help to facilitate the delivery of housing that meets the needs of the population including ensuring access to new and existing sustainable residential developments?  
• Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?  
• 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  
Policy theme 3.2: Supporting the local visitor economy  
Policy theme 3.3: Supporting business clusters  
Policy theme 3.4: Freight | AO1. To enhance and improve accessibility and connectivity for all  
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?  
• Improve access to sustainable transport modes including public transport and active travel?  
• Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?  
• Help reduce overall unemployment, particularly long-term and youth unemployment, by removing barriers, improving resilience and enabling growth?  
• 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? |
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<th>Assessment guide questions: Does the policy...</th>
</tr>
</thead>
</table>
| 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  
● 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  
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?  
● Improve access to sustainable transport modes including public transport and active travel?  
● Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?  
● 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?  
● 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  
● Policy theme 5.2: Ensuring transport security | 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 | ● Create a travel environment that is (and feels) safe for all users, day and night?  
● Improve access to sustainable transport modes including public transport and active travel?  
● Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?  
● 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?  
● Creates or addresses deficiencies for green spaces that are safe and accessible to all? |
| 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  
● Policy theme 6.2: Transport pricing and affordability  
● Policy theme 6.3: Access to education and key services  
● Policy theme 6.4: The future of mobility | 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 | ● Create a travel environment that is (and feels) safe for all users, day and night?  
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| 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  
• Policy theme 7.2: Promoting and raising awareness of sustainable transport options  
• Policy theme 7.3: Supporting and promoting health and wellbeing | 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  
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?  
• Improve access to sustainable transport modes including public transport and active travel?  
• Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?  
• 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?  
• 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?  
• Improve access to sustainable transport modes including public transport and active travel?  
• Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?  
• 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?  
• Creates or addresses deficiencies for green spaces that are safe and accessible to all? |
| OB9: Deliver a transport network that protects and enhances our natural, historic and built environments | • Policy theme 9.1: Protecting our natural environment  
• 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?  
• 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? |
<table>
<thead>
<tr>
<th>Local transport plan objectives (OB)</th>
<th>Policy themes</th>
<th>Assessment objectives (AO)</th>
<th>Assessment guide questions: Does the policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>OB10: Reduce emissions to as close to zero as possible to minimise the impact of transport and travel on climate change</td>
<td>● Policy theme 10.1: Reducing the carbon emissions from travel</td>
<td>AO2. To increase the proportion of journeys made by public transport and active travel modes</td>
<td>● Create a travel environment that is (and feels) safe for all users, day and night?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>● Improve access to sustainable transport modes including public transport and active travel?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>● Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>● 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?</td>
</tr>
<tr>
<td>Modal Policies</td>
<td>● Policy theme 11: Walking</td>
<td>AO2. To increase the proportion of journeys made by public transport and active travel modes AO3. To strengthen the area’s position as a growing and diverse economy, providing opportunities for all</td>
<td>● Create a travel environment that is (and feels) safe for all users, day and night?</td>
</tr>
<tr>
<td></td>
<td>● Policy theme 12: Cycling</td>
<td>AO1. To enhance and improve accessibility and connectivity for all AO5. To protect, connect and enhance the region’s natural capital and the services and benefits it provide</td>
<td>● Improve access to sustainable transport modes including public transport and active travel?</td>
</tr>
<tr>
<td></td>
<td>● Policy theme 13: Delivering a seamless public transport system</td>
<td></td>
<td>● Improve accessibility, connectivity and reduce severance to address deficiencies and inequalities in access to services, facilities and communities?</td>
</tr>
<tr>
<td></td>
<td>● Policy theme 14: Rural transport services</td>
<td></td>
<td>● 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?</td>
</tr>
<tr>
<td></td>
<td>● Policy theme 15: Improving public transport in our towns and cities</td>
<td></td>
<td>● Help reduce overall unemployment, particularly long-term and youth unemployment, by removing barriers, improving resilience and enabling growth?</td>
</tr>
<tr>
<td></td>
<td>● Policy theme 16: Travelling by coach</td>
<td></td>
<td>● Creates or addresses deficiencies for green spaces that are safe and accessible to all?</td>
</tr>
<tr>
<td></td>
<td>● Policy theme 17: Travelling by train</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Policy theme 18: The road network</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Policy theme 19: Parking</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Policy theme 20: Making long-distance journeys by car</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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. 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.

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'
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

<table>
<thead>
<tr>
<th></th>
<th>Peterborough</th>
<th>Huntingdonshire</th>
<th>South Cambridgeshire</th>
<th>Cambridge</th>
<th>Fenland</th>
<th>East Cambridgeshire</th>
<th>Combined Authority</th>
<th>England</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion of children (under 16 years old)</td>
<td>22.9%</td>
<td>18.4%</td>
<td>20.1%</td>
<td>16.6%</td>
<td>17.8%</td>
<td>20%</td>
<td>19.6%</td>
<td>19.1%</td>
</tr>
<tr>
<td>Proportion of younger people (aged 16 to 24 years old)</td>
<td>9.8%</td>
<td>8.8%</td>
<td>8.3%</td>
<td>22.4%</td>
<td>9.5%</td>
<td>8.4%</td>
<td>11%</td>
<td>10.9%</td>
</tr>
<tr>
<td>Proportion of older people (65 years and older)</td>
<td>14.6%</td>
<td>19.6%</td>
<td>19.2%</td>
<td>12.7%</td>
<td>22.4%</td>
<td>19.8%</td>
<td>17.7%</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Disability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion of people with a LLTI</td>
<td>16.7%</td>
<td>14.9%</td>
<td>13.9%</td>
<td>13%</td>
<td>21%</td>
<td>15.4%</td>
<td>15.6%</td>
<td>17.6%</td>
</tr>
<tr>
<td><strong>Pregnancy and maternity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total fertility rate</td>
<td>2.26</td>
<td>1.79</td>
<td>1.79</td>
<td>1.55</td>
<td>2.3</td>
<td>1.84</td>
<td>1.88</td>
<td>1.76</td>
</tr>
<tr>
<td>Proportion of total population of child bearing age (16-44)</td>
<td>19%</td>
<td>17%</td>
<td>17%</td>
<td>16%</td>
<td>17%</td>
<td>18%</td>
<td>18%</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Race and ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion of White British people</td>
<td>70.9%</td>
<td>89.5%</td>
<td>87.3%</td>
<td>66%</td>
<td>90.4%</td>
<td>89.7%</td>
<td>81.4%</td>
<td>79.8%</td>
</tr>
<tr>
<td>Proportion of BAME people</td>
<td>29.1%</td>
<td>10.5%</td>
<td>12.7%</td>
<td>34%</td>
<td>9.6%</td>
<td>10.3%</td>
<td>18.6%</td>
<td>20.2%</td>
</tr>
<tr>
<td><strong>Religion or belief</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion of those from a minority faith</td>
<td>12%</td>
<td>8.3%</td>
<td>1.6%</td>
<td>1.4%</td>
<td>2.4%</td>
<td>3%</td>
<td>5.4%</td>
<td>8.7%</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion of males</td>
<td>50.1%</td>
<td>51.8%</td>
<td>49.3%</td>
<td>49.4%</td>
<td>50%</td>
<td>49.4%</td>
<td>50%</td>
<td>49.4%</td>
</tr>
<tr>
<td>Proportion of females</td>
<td>49.9%</td>
<td>48.2%</td>
<td>50.7%</td>
<td>50.6%</td>
<td>50%</td>
<td>50.6%</td>
<td>50%</td>
<td>50.6%</td>
</tr>
<tr>
<td><strong>Deprivation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion of population in the most deprived quintile</td>
<td>37.2%</td>
<td>2.4%</td>
<td>0%</td>
<td>21.1%</td>
<td>2.1%</td>
<td>0%</td>
<td>12%</td>
<td>20.4%</td>
</tr>
<tr>
<td><strong>Travel access</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion of those without access to a private vehicle</td>
<td>24.9%</td>
<td>33.6%</td>
<td>13%</td>
<td>18.1%</td>
<td>13.6%</td>
<td>11%</td>
<td>19.1%</td>
<td>25.8%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Major adverse</th>
<th>Moderate adverse</th>
<th>Minor adverse</th>
<th>Neutral</th>
<th>Minor beneficial</th>
<th>Moderate beneficial</th>
<th>Major beneficial</th>
</tr>
</thead>
<tbody>
<tr>
<td>XX XX</td>
<td>XX</td>
<td>X</td>
<td>0</td>
<td>✓</td>
<td>✓✓</td>
<td>✓✓✓</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Local transport plan objectives (OB)</th>
<th>Policy Themes</th>
<th>Assessment Objectives (AO)</th>
<th>Assessment Guide Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>OB1</td>
<td>1.1: Enabling development</td>
<td>AO4</td>
<td>N/A</td>
</tr>
<tr>
<td>OB2</td>
<td>2.1: Planning and designing developments sustainably</td>
<td>AO3 &amp; AO4</td>
<td>✓</td>
</tr>
<tr>
<td>OB3</td>
<td>2.2: Expanding labour markets</td>
<td>AO1 &amp; AO3</td>
<td>✓</td>
</tr>
<tr>
<td>OB4</td>
<td>3.1: Accessing ports and airports</td>
<td>AO2 &amp; AO5</td>
<td>✓</td>
</tr>
<tr>
<td>OB5</td>
<td>4.1: Building a resilient and adaptive transport network to climate change</td>
<td>AO1 &amp; AO2</td>
<td>0</td>
</tr>
<tr>
<td>OB6</td>
<td>5.1: Safety for all – a safe systems approach</td>
<td>AO1 &amp; AO2</td>
<td>0</td>
</tr>
<tr>
<td>OB6</td>
<td>5.2: Ensuring transport security</td>
<td>AO1 &amp; AO2</td>
<td>✓</td>
</tr>
<tr>
<td>OB6</td>
<td>6.1: Transport accessibility for all</td>
<td>AO1 &amp; AO2</td>
<td>✓</td>
</tr>
<tr>
<td>OB6</td>
<td>6.2: Transport pricing and affordability</td>
<td>AO1 &amp; AO2</td>
<td>✓</td>
</tr>
<tr>
<td>OB6</td>
<td>6.3: Access to education and key services</td>
<td>AO1 &amp; AO2</td>
<td>✓</td>
</tr>
<tr>
<td>OB6</td>
<td>6.4: The future of mobility</td>
<td>AO1 &amp; AO2</td>
<td>✓</td>
</tr>
<tr>
<td>Local transport plan objectives (OB)</td>
<td>Policy Themes</td>
<td>Assessment Objectives (AO)</td>
<td>Assessment Guide Questions</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---------------</td>
<td>----------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AO1, AO2 &amp; AO5</td>
<td>Reduce the number of people, particularly the vulnerable, exposed to particulates and nitrogen dioxide concentrations, helping to attain targets for air quality and reduce carbon emissions?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AO1, AO2 &amp; AO5</td>
<td>Improve accessibility, connectivity and reduce severance in the delivery of housing that meets the needs of the population including ensuring accessible and sustainable developments?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AO1, AO2, AO3 &amp; AO5</td>
<td>Help to reduce overall unemployment, help women, young people and ethnic minorities, by encouraging employment opportunities, improving resilience and enabling growth?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AO1, AO2, AO3 &amp; AO5</td>
<td>Create or addresses efficiencies for passengers and freight that are accessible to all?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AO1, AO2, AO3 &amp; AO5</td>
<td>Create a travel environment that is (and feels) safe for all users, day and night?</td>
</tr>
</tbody>
</table>

| OB7 7.1: Public rights of way and waterways | 7.2: Promoting and raising awareness of sustainable transport options | 7.3: Supporting and promoting health and wellbeing | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ |
| OB8 8.1: Improving air quality | AO2 | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ |
| OB9 9.1: Protecting our natural environment | AO5 | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ |
| OB10 10.1: Reducing the carbon emissions from travel | AO2 | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ |

| Modal Policies | 11: Walking | AO1, AO2, AO3 & AO5 | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ |
|               | 12: Cycling | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ |
|               | 13: Delivering a seamless public transport system | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ |
|               | 14: Rural transport services | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ |
|               | 15: Improving public transport in our towns and cities | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ |
|               | 16: Travelling by coach | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ |
|               | 17: Travelling by train | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ |
|               | 18: The local road network | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ |
|               | 19: Parking | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ |
|               | 20: Making long-distance journeys by car | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ |

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

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>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</td>
<td>Helps to prevent community severance and its associated impacts from occurring in new developments</td>
<td>Younger people</td>
<td>Alconbury</td>
</tr>
<tr>
<td></td>
<td>Helps to facilitate housing that meets the needs of the population including benefits to public health.</td>
<td>Older people</td>
<td>Cambridge</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disabled people</td>
<td>Cambridge South</td>
</tr>
<tr>
<td></td>
<td></td>
<td>People from a BAME background</td>
<td>Cambridgeshire</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Women</td>
<td>Deprived areas</td>
</tr>
<tr>
<td>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</td>
<td>Helps to reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health</td>
<td>Children and younger people</td>
<td>Ely</td>
</tr>
<tr>
<td></td>
<td>Helps to improve access to public and sustainable transport</td>
<td>Older people</td>
<td>Huntingdon</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disabled people</td>
<td>New developments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pregnant women</td>
<td>Soham</td>
</tr>
<tr>
<td></td>
<td></td>
<td>People from a BAME background</td>
<td>Walton</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Wisbech</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encourage the location of new developments to be within easy walking and cycling distance of key services and facilities</td>
<td>Helps to prevent community severance and its associated impacts from occurring in new developments&lt;sup&gt;1&lt;/sup&gt;</td>
<td>● Children and younger people&lt;br&gt;● Older people&lt;br&gt;● Disabled people&lt;br&gt; ● Women</td>
<td>Deprived areas New developments Air Quality Management Areas (AQMAs)</td>
</tr>
<tr>
<td></td>
<td>Helps to reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health</td>
<td>● Children and younger people&lt;br&gt;● Older people&lt;br&gt;● Disabled people&lt;br&gt;● Pregnant women&lt;br&gt;● People from a BAME background</td>
<td></td>
</tr>
<tr>
<td>Encourage developers to implement safe, convenient and sustainable modes of transportation (including high quality public transport and electric vehicle charging points)</td>
<td>Helps to ensure access to services, facilities and communities including health, education and employment</td>
<td>● Children and younger people&lt;br&gt;● Older people&lt;br&gt;● Disabled people&lt;br&gt; ● Women</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Helps to improve access to public and sustainable transport</td>
<td>● Children and younger people&lt;br&gt;● Older people&lt;br&gt;● Disabled people&lt;br&gt; ● Pregnant women&lt;br&gt;● People from a BAME background&lt;br&gt;● Women</td>
<td></td>
</tr>
<tr>
<td>Encourage Local Authority partners to implement quality cycle facilities at workplaces (including secured and covered cycle parking, showering and changing facilities at workplaces)</td>
<td>Helps to ensure access employment</td>
<td>● Older people&lt;br&gt;● Disabled people&lt;br&gt;● People from a BAME background&lt;br&gt;● Women</td>
<td>Deprived areas AQMAs</td>
</tr>
<tr>
<td></td>
<td>Helps to improve public health overall through increased physical activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Helps to reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health</td>
<td>● Children and younger people&lt;br&gt;● Older people&lt;br&gt;● Disabled people&lt;br&gt;● Pregnant women&lt;br&gt;● People from a BAME background</td>
<td></td>
</tr>
</tbody>
</table>

<sup>1</sup> 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

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
</table>
| 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  
• Disabled people  
• People from a BAME background  
• Women | Deprived areas  
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  
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 | • Older people  
• Pregnant women  
• People from a BAME background  
• Women  
• Children and younger people  
• Older people  
• Disabled people  
• Pregnant women  
• People from a BAME background | Deprived areas  
AQMAs |

#### 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

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
</table>
| 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
Older people
Disabled people
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
Older people
Disabled people
Pregnant women
People from a BAME background | Deprived areas 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
Disabled people
People from a BAME background
Women | Deprived areas |
### 6.4.2 Policy theme 3.2: Supporting the local visitor economy

**Table 12: Policy theme 3.2 impacts**

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved waiting facilities at rural train stations</td>
<td>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</td>
<td>Older people</td>
<td>Rural areas</td>
</tr>
<tr>
<td>Provide real-time travel information at stations, particularly during times of disruption</td>
<td>Helps to improve access to travel information for those that have concerns about its provision, resulting in a barrier to public transport usage</td>
<td>Older people, Disabled people, People from a BAME background</td>
<td></td>
</tr>
<tr>
<td>Support the development of rural travel hubs</td>
<td>Helps to improve access to public transport, decreasing levels of social isolation experienced in rural areas</td>
<td>Children and younger people, Older people, Disabled people</td>
<td>Rural areas</td>
</tr>
<tr>
<td>Deliver an integrated transport network for those visiting the region for the first time, by supporting sustainable transport connectivity to rural areas.</td>
<td>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</td>
<td>Children and younger people, Older people, Disabled people, Pregnant women, People from a BAME background</td>
<td>Deprived areas AQMAs</td>
</tr>
</tbody>
</table>

### 6.4.3 Policy theme 3.3: Supporting business clusters

**13: Policy theme 3.3 impacts**

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helps to improve access to public transport, reducing the barriers to mobility that currently exist</td>
<td></td>
<td>Younger people, Older people, Disabled people, People from a BAME background, Women</td>
<td>Deprived areas</td>
</tr>
<tr>
<td>Improved rail network increasing the frequency of key routes and reducing journey times for commuters</td>
<td>Helps to improve access to employment sites via sustainable modes of transport, reducing the barrier to employment that a lack of transport can create</td>
<td>Younger people, Disabled people, People from a BAME background, Women</td>
<td>Deprived areas</td>
</tr>
<tr>
<td></td>
<td>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</td>
<td>Children and younger people, Older people, Disabled people, Pregnant women, People from a BAME background</td>
<td>Deprived areas AQMAs</td>
</tr>
</tbody>
</table>
6.4.4  Policy theme 3.4: Freight

Table 14: Policy theme 3.4 impacts

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support freight modal shift away from road infrastructure onto rail</td>
<td>Helps to improve public safety on the road network through a decrease in large vehicle journeys</td>
<td>● Children and younger people</td>
<td>Deprived areas</td>
</tr>
<tr>
<td>Reviewing advisory routes and diversionary routes</td>
<td></td>
<td>● Older people</td>
<td>Rural areas in freight routes</td>
</tr>
<tr>
<td>Encourage deliveries to be made by alternative, more sustainable modes of freight</td>
<td></td>
<td>● Disabled people</td>
<td></td>
</tr>
<tr>
<td>Support the assessment of the feasibility of a Low Emission Zone and Charge for Cambridge</td>
<td>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</td>
<td>● Children and younger people</td>
<td>Cambridge</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Older people</td>
<td>Deprived areas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Disabled people</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Pregnant women</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>● People from a BAME background</td>
<td></td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design and build new transport infrastructure with climate change in mind, including the implementation of sustainable drainage solutions</td>
<td>Helps to reduce the risk of future community severance due to either surface transport or railway and busway infrastructure vulnerabilities and its associated impacts</td>
<td>Younger people, Older people, Disabled people, People from a BAME background, Women</td>
<td>Deprived areas</td>
</tr>
<tr>
<td>Early consideration of sustainable and adaptive design principles and the use of more sustainable materials for road network maintenance</td>
<td>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</td>
<td>Children and younger people, Older people, Disabled people, Pregnant women, People from a BAME background, Women</td>
<td>Deprived areas, AQMAs</td>
</tr>
</tbody>
</table>

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

**Table 16: Policy theme 4.2 impacts**

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing a prioritised programme of works, including active travel infrastructure, to ensure maintenance will address the most significant areas</td>
<td>Helps to improve public safety and consequent public health through increased road safety and increased maintenance of active travel facilities</td>
<td>Children and younger people, Older people, Disabled people, People from a BAME background, Women</td>
<td>Deprived areas, AQMAs</td>
</tr>
<tr>
<td></td>
<td>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</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improved lighting and signage to ensure that local journeys are safe, reliable and efficient at all times and in all weather conditions</td>
<td>Helps to improve public safety and consequent public health through increased feelings of personal safety</td>
<td>Children and younger people, Older people, Disabled people, People from a BAME background, Muslims, Women, Lesbian, gay and bisexual (LGB) individuals</td>
<td>Deprived areas</td>
</tr>
<tr>
<td>Policy content</td>
<td>Potential impacts</td>
<td>Potentially affected groups</td>
<td>Spatial consideration</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>-----------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Early consideration of sustainable and adaptive design principles, the use of more sustainable materials and the co-ordination of roadworks</td>
<td>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</td>
<td>Children and younger people, Old people, Disabled people, Pregnant women, People from a BAME background, Women</td>
<td>Deprived areas AQMAs</td>
</tr>
</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure funding for road safety education, training and campaigns across educational facilities, businesses and communities.</td>
<td>Helps to improve public safety and consequent public health through improved safety of the road network.</td>
<td>Younger people, Old people, Disabled people, Women</td>
<td>Deprived areas</td>
</tr>
<tr>
<td>Establish a road safety hub which aims to provide a single point of contact for road safety information and advice.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6.6.2  Policy theme 5.2: Ensuring transport security

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address evening, night time and early morning safety issues by illuminating urban routes</td>
<td>Helps to improve public safety and consequent public health through increased feelings of personal safety</td>
<td>Younger people, Older people, Disabled people, People from a BAME background, Women</td>
<td>Deprived areas</td>
</tr>
<tr>
<td>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</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promote walking and cycling routes that are visible to passing traffic, houses and/or shops, rather than routes on isolated areas</td>
<td>Helps to prevent community severance and its associated impacts from occurring</td>
<td>Younger people, Older people, Disabled people, People from a BAME background, Women</td>
<td></td>
</tr>
<tr>
<td>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)</td>
<td>Helps to improve public safety and consequent public health through increased feelings of personal safety</td>
<td>Younger people, Older people, Disabled people, People from a BAME background, Women</td>
<td>Deprived areas</td>
</tr>
<tr>
<td>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</td>
<td>Helps to prevent community severance and its associated impacts from occurring in new developments</td>
<td>Younger people, Older people, Disabled people, People from a BAME background, Women</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Helps to improve accessibility and safety of public transport stations, especially for people with mobility and visual impairments</td>
<td>Older people, Disabled people, specifically those with mobility and visual impairments</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Helps to improve access to and accessibility of public transport</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Helps to improve public safety and consequent public health through increased feelings of personal safety</td>
<td>Children and younger people, Older people, Disabled people, People from a BAME background, Muslims, Women, LGB individuals</td>
<td>Deprived areas</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>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</td>
<td>Helps to ensure that the transport is safe for use by improved monitoring, reducing risk for passengers</td>
<td>Children, Disabled people</td>
<td>AQMAs</td>
</tr>
<tr>
<td></td>
<td>Helps to improve air quality and consequently public health as a result of monitoring emissions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improving the quality and provision of accessible travel information using good design principles, digital infrastructure and a wider variety of platforms</td>
<td>Helps to improve access to public transport for those who currently experience difficulties due to a lack of accessible travel information</td>
<td>Older people, Disabled people, People from a BAME background</td>
<td></td>
</tr>
<tr>
<td>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)</td>
<td>Helps to improve access to public transport for those who currently experience physical access barriers, opening up this mode of travel</td>
<td>Older people, Disabled people</td>
<td></td>
</tr>
<tr>
<td>Supporting travel training programmes that help people to travel independently on the public transport network</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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</td>
<td>Helps to improve accessibility, connectivity and reduce severance, particularly with access to educational and health care facilities</td>
<td>Younger people, Disabled people</td>
<td>Deprived areas</td>
</tr>
<tr>
<td>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</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ensuring new commercial and residential developments consider access to key services via accessible transport modes</td>
<td>Helps to improve accessibility, connectivity and reduce severance with regard to key services</td>
<td>Children and younger people, Older people, Disabled people, Pregnant women, People from a BAME background, Women</td>
<td>Deprived areas</td>
</tr>
</tbody>
</table>
### Policy content

Supporting and promoting both community transport services and the accessibility of public transport

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supporting and promoting both community transport services and the accessibility of public transport</td>
<td>Helps encourage a modal shift away from the use of private vehicles, reducing emissions and consequently improving air quality and public health</td>
<td>● Children and younger people  ● Older people  ● Disabled people  ● Pregnant women  ● People from a BAME background</td>
<td>Deprived areas</td>
</tr>
</tbody>
</table>

#### 6.7.2 Policy theme 6.2: Transport pricing and affordability

**Table 20: Policy theme 6.2 impacts**

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making the public transport system more affordable by opposing inflation fare increases and maintaining the range of discounted tickets available</td>
<td>Helps to ensure that the public transport network is an affordable and viable mode of transport for everyone</td>
<td>● Young people  ● People from a BAME background</td>
<td>Deprived areas</td>
</tr>
<tr>
<td>Introducing more flexible travel passes, for example, ‘part-time’ season tickets (for those who travel regularly, but not five days a week)</td>
<td>Helps those who work shifts to benefit from the savings that can be made from using a travel pass</td>
<td>● Young people  ● Women</td>
<td></td>
</tr>
<tr>
<td>Offering multi-modal tickets to make the system easier</td>
<td>Helps to reduce the complexity of the public transport ticketing system, making the process of purchasing a ticket less confusing</td>
<td>● Disabled people</td>
<td></td>
</tr>
<tr>
<td>Creating a more inclusive transport system that is affordable, accessible and available enabling people to access key services and employment opportunities</td>
<td>Helps to improve accessibility, connectivity and reduce severance with regard to key services</td>
<td>● Children and younger people  ● Older people  ● Disabled people  ● Pregnant women  ● People from a BAME background  ● Women</td>
<td>Deprived areas AQMAs</td>
</tr>
</tbody>
</table>
6.7.3 Policy theme 6.3: Access to education and key services

Table 21: Policy theme 6.3 impacts

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supporting travel training to help people travel independently that currently</td>
<td>Helps to improve access to sustainable transport modes, ultimately improving both</td>
<td>Older people, Disabled people</td>
<td></td>
</tr>
<tr>
<td>lack confidence using the public transport network</td>
<td>access to services and facilities and levels of social inclusion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supporting travel planning measures such as car share schemes</td>
<td></td>
<td>Younger people, Older people, Disabled people, People</td>
<td>Deprived areas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>from a BAME background</td>
<td></td>
</tr>
<tr>
<td>Reviewing pre and post-16 education transport to ensure that the system supports those in need</td>
<td>Helps to improve access to education facilities and enhanced levels of social inclusion</td>
<td>Children and younger people</td>
<td></td>
</tr>
<tr>
<td>Providing financial support and free transport where needed to post-16 education for those in need</td>
<td></td>
<td>Disabled people who require support accessing education facilities</td>
<td></td>
</tr>
<tr>
<td>Implementing interventions to support access to education for those with special educational needs</td>
<td></td>
<td></td>
<td>Deprived areas</td>
</tr>
<tr>
<td>Ensuring that new developments have access to key services via good transport infrastructure</td>
<td>Helps to improve access to key services and enhanced levels of social inclusion</td>
<td>Children and younger people, Older people, Disabled people, People from a BAME background, Women</td>
<td></td>
</tr>
<tr>
<td>Promoting digital inclusion by using digital infrastructure and technological solutions to help more people have access to information about key services online</td>
<td></td>
<td>Disabled people, Older people</td>
<td></td>
</tr>
<tr>
<td>Reviewing the levels of accessibility to key healthcare services and ensuring that new healthcare developments include transport infrastructure</td>
<td>Helps to improve access to healthcare services and enhanced levels of social inclusion</td>
<td>Older people, Disabled people, Pregnant women</td>
<td>Deprived areas</td>
</tr>
<tr>
<td>Supporting travel planning activities to support healthy, greener travel choices for those accessing education sites</td>
<td>Helps to reduce emissions from vehicle journeys by encouraging active travel, minimising nitrogen dioxide concentrations improving air quality and consequently public health</td>
<td>Children and younger people, Older people, Disabled people, Pregnant women, People from a BAME background</td>
<td>Deprived areas AQMAs</td>
</tr>
</tbody>
</table>
6.7.4 Policy theme 6.4: The future of mobility

Table 22: Policy theme 6.4 impacts

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
</table>
| 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  
● Older people  
● Disabled people  
● Pregnant women  
● People from a BAME background  
● Women                                                  | Deprived areas 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**

<table>
<thead>
<tr>
<th>Policy content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhancement and improvement of PRoW through the adoption of an aligned policy between both Councils and the Local Highway Authority</td>
</tr>
<tr>
<td>Helps to improve public safety and consequent public health through reduced risks with motor and rail traffic</td>
</tr>
<tr>
<td>Helps to improve public health overall through increased physical activity associated with increased use of PRoW</td>
</tr>
<tr>
<td>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</td>
</tr>
<tr>
<td>Helps to improve public health overall through increased access to green space through the improved accessibility of PRoW routes</td>
</tr>
<tr>
<td>Ensuring new developments do not damage (and possibly improve) existing PRoW</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Potential impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helps to improve public safety and consequent public health through reduced risks with motor and rail traffic</td>
</tr>
<tr>
<td>Helps to improve public health overall through increased physical activity associated with increased use of PRoW</td>
</tr>
<tr>
<td>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</td>
</tr>
<tr>
<td>Helps to improve public health overall through increased access to green space through the improved accessibility of PRoW routes</td>
</tr>
<tr>
<td>Helps to prevent community severance and its associated impacts from occurring in new developments</td>
</tr>
<tr>
<td>Helps to ensure access to services, facilities and communities including health, education and employment for those in new developments</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Potentially affected groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children and younger people</td>
</tr>
<tr>
<td>Older people</td>
</tr>
<tr>
<td>Disabled people</td>
</tr>
<tr>
<td>People from a BAME background</td>
</tr>
<tr>
<td>Men</td>
</tr>
<tr>
<td>Women</td>
</tr>
<tr>
<td>Older people</td>
</tr>
<tr>
<td>People from a BAME background</td>
</tr>
<tr>
<td>Women</td>
</tr>
<tr>
<td>Older people</td>
</tr>
<tr>
<td>Disabled people</td>
</tr>
<tr>
<td>Younger people</td>
</tr>
<tr>
<td>Older people</td>
</tr>
<tr>
<td>Disabled people</td>
</tr>
<tr>
<td>People from a BAME background</td>
</tr>
<tr>
<td>Women</td>
</tr>
<tr>
<td>Deprived areas</td>
</tr>
<tr>
<td>New developments</td>
</tr>
</tbody>
</table>
### 6.8.2 Policy theme 7.2: Promoting and raising awareness of sustainable transport options

#### Table 24: Policy theme 7.2 impacts

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support bike loan schemes and programmes</td>
<td>Helps to improve access to services, facilities and communities including health, education and employment</td>
<td>● Older people ● People from a BAME background ● Women</td>
<td>Deprived areas AQMAs</td>
</tr>
<tr>
<td></td>
<td>Helps to improve public health overall through increased physical activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Helps to improve access to active transport for those who currently less likely to have access to a bike</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health</td>
<td>● Children and younger people ● Older people ● Disabled people ● Pregnant women ● People from a BAME background ● Women</td>
<td></td>
</tr>
<tr>
<td>Tackle the perceptions and barriers of cycling as a mode of transport via a marketing campaign</td>
<td>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</td>
<td>● People from a BAME background</td>
<td>Deprived areas</td>
</tr>
<tr>
<td>Promotion of car sharing schemes and car clubs</td>
<td>Helps to improve access to services, facilities and communities including health, education and employment services</td>
<td>● Younger people ● Older people ● Disabled people ● People from a BAME background ● Women</td>
<td>Deprived areas</td>
</tr>
<tr>
<td>Promotion of bike loan schemes may not adequately target those who are less likely to have access to a bike</td>
<td>Experience inequality and inaccessibility</td>
<td>● Older people ● People from a BAME background</td>
<td>Deprived areas</td>
</tr>
</tbody>
</table>
6.8.3 Policy theme 7.3: Supporting and promoting health and wellbeing

Table 25: Policy theme 7.3 impacts

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure walking and cycling networks are comprehensive, connecting residential</td>
<td>Helps to improve access to services, facilities and communities including health,</td>
<td>Children and younger people</td>
<td>Deprived areas AQMAs</td>
</tr>
<tr>
<td>areas to key sites of employment, education, leisure and open space and are</td>
<td>education and employment</td>
<td>Older people</td>
<td></td>
</tr>
<tr>
<td>safe and attractive for all users.</td>
<td>Helps to improve public health overall through increased physical activity</td>
<td>Disabled people</td>
<td></td>
</tr>
<tr>
<td>Ensure walking and cycling are given the highest priority when developing</td>
<td>Helps to reduce private vehicle journeys and therefore reduce emissions and</td>
<td>Pregnant women</td>
<td></td>
</tr>
<tr>
<td>streets and roads.</td>
<td>minimise nitrogen dioxide concentrations improving air quality and consequently</td>
<td>People from a BAME background</td>
<td></td>
</tr>
<tr>
<td></td>
<td>public health</td>
<td>Women</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Helps to prevent community severance and its associated impacts from occurring</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
</table>
| 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  
• Older people  
• Disabled people  
• People from a BAME background  
• Muslims  
• Transgender individuals  
• LGB individuals | Deprived areas  
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  
• Older people  
• Disabled people  
• Pregnant women  
• 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  
• Disabled people who use a wheelchair | Deprived areas  
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  
• Older people  
• Disabled people  
• People with pre-existing health conditions  
• Pregnant women  
• People from a BAME background | Cambridge City Centre  
Deprived areas  
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  
• Older people  
• Disabled people  
• People with pre-existing health conditions  
• Pregnant women  
• People from a BAME background | Deprived areas  
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

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
</table>
| 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  
   ● People from a BAME background  
   ● 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  
   ● Disabled people  
   ● People with pre-existing health conditions  
   ● Pregnant women  
   ● 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

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remove street clutter as part of development and maintenance schedules</td>
<td>Helps to improve accessibility and safety on streets, especially for people with mobility and visual impairments</td>
<td>● Older people  ● Disabled people specifically those with mobility and visual impairments</td>
<td>Deprived areas  Public open spaces / squares</td>
</tr>
<tr>
<td>Consider how the existing built environment needs to be adapted for, and new development needs to consider, the needs of an aging population</td>
<td>Helps to improve accessibility of all modes of transport  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</td>
<td>● Older people</td>
<td>Deprived areas  New developments</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhancement and improvement cycleways and bridleway networks</td>
<td>Helps to improve access through sustainable transport to services, facilities and communities including health, education and employment</td>
<td>Younger people, Older people, Disabled people, People from a BAME background, Women</td>
<td>Deprived areas AQMAs</td>
</tr>
<tr>
<td></td>
<td>Helps to improve public health overall through increased physical activity associated with improved cycleways and bridleway networks</td>
<td>Older people, People from a BAME background, Women</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health</td>
<td>Children and younger people, Older people, Disabled people, Pregnant women, People from a BAME background, Women</td>
<td></td>
</tr>
<tr>
<td>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</td>
<td>Helps to improve access to public and sustainable transport</td>
<td>Children and younger people, Older people, Disabled people, Pregnant women, People from a BAME background, Women</td>
<td>Deprived areas AQMAs</td>
</tr>
<tr>
<td></td>
<td>Helps to reduce emissions and minimise nitrogen dioxide concentrations associated with private vehicle journeys improving air quality and consequently public health</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>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</td>
<td>Helps to improve access to services, facilities and communities including health, education and employment</td>
<td>● Older people  ● Disabled people</td>
<td>Deprived areas AQMAs</td>
</tr>
<tr>
<td></td>
<td>Helps to improve public health overall through increased physical activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health</td>
<td>● Children and younger people  ● Older people  ● Disabled people  ● Pregnant women  ● People from a BAME background  ● Women</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Helps to improve access to public and sustainable transport</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improving walking infrastructure to better link the local community with key destinations (including public transport)</td>
<td>Helps to improve access to services, facilities and communities including health, education and employment</td>
<td>● Younger people  ● Older people  ● People from a BAME background  ● Women</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Helps to improve public health overall through increased physical activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Helps to increase access to active transport</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health</td>
<td>● Children and younger people  ● Older people  ● Disabled people  ● Pregnant women  ● People from a BAME background  ● Women</td>
<td>Deprived areas AQMAs</td>
</tr>
</tbody>
</table>
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
- Older people
- Disabled people
- Women

6.12.2 Policy theme 12: Cycling

Table 31: Policy theme 12 impacts

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhancement and improvements to the cycle network across the whole of the CPCA including high quality cycle network links to public transport</td>
<td>Helps to improve public health overall through increased physical activity</td>
<td>Younger people, Older people, People from a BAME background, Women</td>
<td>Deprived areas, AQMAs</td>
</tr>
<tr>
<td>Help to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health</td>
<td>Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health</td>
<td>Younger people, Older people, Disabled people, Pregnant women, People from a BAME background, Women</td>
<td>Deprived areas, AQMAs</td>
</tr>
<tr>
<td>Help to improve access to services, facilities and communities including health, education and employment</td>
<td>Helps to improve access to services, facilities and communities including health, education and employment</td>
<td>Younger people, Older people, Disabled people, People from a BAME background, Women</td>
<td>Deprived areas, AQMAs</td>
</tr>
<tr>
<td>Introduction of segregated cycleways and the reduction of vehicle speed limits</td>
<td>Helps to improve feelings of public safety and consequent public health through increased use of active travel</td>
<td>Older people, Women</td>
<td>Deprived areas</td>
</tr>
<tr>
<td>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</td>
<td>Helps to increase access to active transport for those who are currently less likely to use cycling as a mode of transport</td>
<td>Disabled people, People from a BAME background, Women</td>
<td>Deprived areas</td>
</tr>
<tr>
<td>Support bike share schemes</td>
<td>Helps to improve access to services, facilities and communities including health, education and employment</td>
<td>Older people, People from a BAME background</td>
<td>Deprived areas, AQMAs</td>
</tr>
</tbody>
</table>
Helps to improve public health overall through increased physical activity

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

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase affordability of public transport through the introduction of a clearer simpler ticket system with a range of ticket options</td>
<td>Helps to improve access to services, facilities and communities including health, education and employment</td>
<td>Younger people, Older people, Disabled people, People from a BAME background, Women</td>
<td>Deprived areas AQMAs</td>
</tr>
</tbody>
</table>

| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| 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, Older people, Disabled people, People from a BAME background, Women | Deprived areas 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
- Older people
- Disabled people
- Pregnant women
- People from a BAME background
- 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
- Older people
- Disabled people

6.12.4 Policy theme 14: Rural transport services

Table 33: Policy theme 14 impacts

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
</table>
| 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
- Older people
- Disabled people
- People from a BAME background
- Women | Deprived areas
Rural areas
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
- Older people
- Disabled people
- Pregnant women
- People from a BAME background
- 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
- Older people
- Disabled people
- Pregnant women
- People from a BAME background
- Women

### 6.12.5 Policy theme 15: Improving public transport in our towns and cities

#### Table 34: Policy theme 15 impacts

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
</table>
| 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  
• Older people  
• Women | Deprived areas  
Cambridge  
Peterborough |
| | Helps to improve public health overall through increased physical activity | • Younger people  
• Older people  
• 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  
• Older people  
• Disabled people  
• People from a BAME background  
• Women | Deprived areas  
Cambridge  
Peterborough  
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  
• Older people  
• Disabled people  
• Pregnant women  
• People from a BAME background  
• 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  
• Older people  
• Disabled people  
• People from a BAME background  
• Muslims | Deprived areas  
Cambridge  
Peterborough |
6.12.6 Policy theme 16: Travelling by coach

Table 35: Policy theme 16 impacts

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved coach pick up and drop off infrastructure.</td>
<td>Helps to improve feelings of public safety and improved road safety</td>
</tr>
<tr>
<td>Improved service frequency due to on demand services and the elimination of walk and wait</td>
<td>Helps to improve access to public and sustainable transport</td>
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<td></td>
<td>Helps to improve access to services, facilities and communities including health, education and employment</td>
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<tr>
<td></td>
<td>Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger people</td>
<td>Deprived areas</td>
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<td>Older people</td>
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<td>Disabled people</td>
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<td>Deprived areas</td>
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<td>Younger people</td>
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<td>People from a BAME background</td>
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<td>Women</td>
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<td>Children and younger people</td>
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<td>Pregnant women</td>
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<td>People from a BAME background</td>
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<td>Women</td>
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</table>
### 6.12.7 Policy theme 17: Travelling by train

**Table 36: Policy theme 17 impacts**

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expansion of the rail network linking new settlements, corridors and growth areas</td>
<td>Helps to improve access to public and sustainable transport</td>
<td>● Younger people</td>
<td>Alconbury Weald</td>
</tr>
<tr>
<td></td>
<td>Helps to improve access to services, facilities and communities including health, education and employment</td>
<td>● Older people</td>
<td>Deprived areas</td>
</tr>
<tr>
<td></td>
<td>Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health</td>
<td>● Disabled people</td>
<td>Peterborough South</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● People from a BAME background</td>
<td>Soham</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Women</td>
<td>Waterbeach</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Wisbech AOMAs</td>
</tr>
<tr>
<td>Risk of community severance by the expansion of the rail network and development of new stations</td>
<td></td>
<td>● Children and younger people</td>
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<td></td>
<td></td>
<td>● Older people</td>
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<td></td>
<td></td>
<td>● Disabled people</td>
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<td></td>
<td></td>
<td>● Pregnant women</td>
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<td>● People from a BAME background</td>
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<td>● Women</td>
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<tr>
<td>Localised increase in nitrogen dioxide concentrations as rail stations act as a trip attractor</td>
<td></td>
<td>● Younger people</td>
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<td></td>
<td></td>
<td>● Older people</td>
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<td>● Disabled people</td>
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<td>● People from a BAME background</td>
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<td>● Women</td>
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<tr>
<td>Improvements to station facilities</td>
<td>Helps to improve access to public and sustainable transport</td>
<td>● Disabled people</td>
<td>Deprived areas</td>
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<td>● Pregnant women</td>
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<td>March</td>
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<td>Peterborough</td>
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</tbody>
</table>
6.12.8 Policy theme 18: The local road network

Table 37: Policy theme 18 impacts

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
</table>
| 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  
● Older people  
● Disabled people  
● People from a BAME background  
● 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  
Helps to reduce private vehicle journeys and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health  
Helps to increase feelings of or risk of becoming a victim of crime | ● Younger people  
● Older people  
● Disabled people  
● Pregnant women  
● People from a BAME background  
● Women  
● Children and younger people  
● Older people  
● Disabled people  
● People from a BAME background  
● Muslims  
● Transgender individuals  
● LGB individuals | Deprived areas  
AQMAs |
### 6.12.9 Policy theme 19: Parking

#### Table 38: Policy theme 19 impacts

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
</table>
| Introduction of push measures (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  
 ● Women                                                                 | Deprived areas                                                                 |
|                | Helps to increase feelings of or risk of becoming a victim of crime                                                                                                                                                   | ● Children and younger people  
 ● Older people  
 ● Disabled people  
 ● People from a BAME background  
 ● Muslims  
 ● Transgender individuals  
 ● 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  
 ● Older people  
 ● Disabled people  
 ● Pregnant women  
 ● People from a BAME background  
 ● 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  
 ● Older people  
 ● Disabled people  
 ● Pregnant women  
 ● People from a BAME background  
 ● Women                                                                 | Deprived areas                                                                 |
6.12.10 Policy theme 20: Making long-distance journeys by car

Table 39: Policy theme 20 impacts

<table>
<thead>
<tr>
<th>Policy content</th>
<th>Potential impacts</th>
<th>Potentially affected groups</th>
<th>Spatial consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve the highway network, by increasing the frequency of key routes and reducing journey times through dualling highly congested A roads.</td>
<td>Helps to reduce idling and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health. Risk of community severance by the widening of road infrastructure.</td>
<td>● Children and younger people&lt;br&gt;● Older people&lt;br&gt;● Disabled people&lt;br&gt;● Pregnant women&lt;br&gt;● People from a BAME background&lt;br&gt;● Women</td>
<td>Cambridge Deprived areas&lt;br&gt;Fens&lt;br&gt;Peterborough Deprived areas&lt;br&gt;Waterbeach&lt;br&gt;Whittlesey&lt;br&gt;AQMAs</td>
</tr>
<tr>
<td>Develop new road corridors to support development and housing growth by delivering a third river crossing at Huntingdon.</td>
<td>Helps to reduce idling and therefore reduce emissions and minimise nitrogen dioxide concentrations improving air quality and consequently public health. Helps to improve access to services, facilities and communities including health, education and employment.</td>
<td>● Children and younger people&lt;br&gt;● Older people&lt;br&gt;● Disabled people&lt;br&gt;● Pregnant women&lt;br&gt;● People from a BAME background&lt;br&gt;● Women</td>
<td>Deprived areas&lt;br&gt;Huntingdon&lt;br&gt;AQMAs</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Protected characteristic or equality group</th>
<th>Geographic areas of higher proportions or higher density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children and younger people</td>
<td>• Cambridge</td>
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<td>• Ely</td>
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<td>• Huntingdon</td>
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<td>• Peterborough</td>
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<td>• Wisbech</td>
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<td>Younger people</td>
<td>• Cambridge</td>
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<td>• Peterborough</td>
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<tr>
<td>Older people</td>
<td>• Cambridge</td>
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<td>• Ely</td>
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<td>• Fenland</td>
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<td>• March</td>
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<td>• St Ives</td>
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<td>• Wisbech</td>
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<tr>
<td>Disabled people</td>
<td>• Cambridge</td>
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<td></td>
<td>• Peterborough</td>
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<tr>
<td>Pregnant women</td>
<td>• Cambridge</td>
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<tr>
<td>People from a BAME background</td>
<td>• Cambridge</td>
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<td></td>
<td>• Huntingdon</td>
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<tr>
<td>Muslims</td>
<td>• Peterborough</td>
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<tr>
<td>Deprived areas</td>
<td>• Cambridge</td>
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<td></td>
<td>• Fenland</td>
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<td>• Huntingdon</td>
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<td>• March</td>
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<td></td>
<td>• Peterborough</td>
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<td></td>
<td>• St Neots</td>
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</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Local transport plan objective</th>
<th>Potential health and equality impacts</th>
<th>Potentially affected groups</th>
<th>Potentially affected geographies</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective 1: Support new housing and development to accommodate a growing population and workforce, and address housing affordability issues</td>
<td>• Helps to achieve improvements to accessibility, connectivity and reduce severance including the holistic health benefits of greater access and reduced social isolation. • Helps to facilitate housing that meets the needs of the population including benefits to public health.</td>
<td>• Younger people • Older people • Disabled people • People from a BAME background • Women</td>
<td>New developments in: • Deprived areas • New developments • Urban areas In particular: • Alconbury • Cambridge • Cambridge South • Cambridgeshire • Ely • Fenland • Huntingdon • March • Peterborough • Soham • St Ives • St Neots • Walton</td>
<td>• Any new developments should be designed to be integrated into an inclusive transport network.</td>
</tr>
<tr>
<td>Local transport plan objective</td>
<td>Potential health and equality impacts</td>
<td>Potentially affected groups</td>
<td>Potentially affected geographies</td>
<td>Recommendations</td>
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<tr>
<td>Objective 2: Connect all new and existing communities sustainably so all residents can easily access a good job, spreading the region’s prosperity</td>
<td>Helps to reduce the health impacts of exposure to particulates and nitrogen dioxide concentrations. Helps to achieve improvements to accessibility, connectivity and reduce severance including the holistic health benefits of greater access and reduced social isolation. Helps to facilitate housing that meets the needs of the population including benefits to public health. Helps to reduce overall unemployment, by removing barriers, improving resilience and enabling growth.</td>
<td>Children and younger people Older people Disabled people Pregnant women People from a BAME background Women</td>
<td>AQMAs Deprived areas New developments Urban areas In particular: Cambridge Ely Fenland Huntingdon March Peterborough St Ives St Neots Wisbech</td>
<td>Ensure transport infrastructure is created in a safe and accessible way to those with mobility issues.</td>
</tr>
<tr>
<td>Objective 3: Ensure all of our region’s businesses and tourist attractions are connected sustainably to our main transport hubs, ports and airports</td>
<td>Helps to reduce the health impacts of exposure to particulates and nitrogen dioxide concentrations. Helps to achieve improvements to accessibility, connectivity and reduce severance including the holistic health benefits of greater access and reduced social isolation. Helps to achieve improved access to sustainable transport modes including the health benefits of increased active transport. Helps to reduce overall unemployment, by removing barriers, improving resilience and enabling growth.</td>
<td>Children and younger people Older people Disabled people Pregnant women People from a BAME background Women</td>
<td>AQMAs Deprived areas Rural areas Urban areas In particular: Cambridge Ely Fenland Huntingdon March Peterborough St Ives St Neots Wisbech</td>
<td>Include specific commitments to how facilities at train stations would be improved for all users improving door-to-door connectivity. Commit to the provision of real-time information in accessible formats.</td>
</tr>
<tr>
<td>Local transport plan objective</td>
<td>Potential health and equality impacts</td>
<td>Potentially affected groups</td>
<td>Potentially affected geographies</td>
<td>Recommendations</td>
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<tr>
<td>Objective 4: Build a transport network that is resilient and adaptive to human and environmental disruption, improving journey time reliability</td>
<td>• Helps to reduce the health impacts of exposure to particulates and nitrogen dioxide concentrations. • Helps to achieve improvements to accessibility, connectivity and reduce severance including the holistic health benefits of greater access and reduced social isolation. • Helps to achieve improved access to sustainable transport modes including the health benefits of increased active transport. • Helps to create a travel environment that is and feels safe.</td>
<td>Children and younger people</td>
<td>Urban areas</td>
<td>Include specific reference to what sustainable materials will be used and what sustainable drainage systems will be included as those that include vegetation might improve air quality.</td>
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<td>Older people</td>
<td>AQMAs</td>
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<td>Disabled people</td>
<td>Deprived areas</td>
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<td>Pregnant women</td>
<td>In particular:</td>
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<td>People from a BAME background</td>
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<td>Muslins</td>
<td>Cambridge</td>
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<td>Women</td>
<td>Huntingdon</td>
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<td>LGB individuals</td>
<td>Wisbech</td>
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<td>St Neots</td>
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<tr>
<td>Objective 5: Embed a safe systems approach into all planning and transport operations to achieve Vision Zero – zero fatalities or serious injuries</td>
<td>• Helps to achieve improvements to accessibility, connectivity and reduce severance including the holistic health benefits of greater access and reduced social isolation. • Helps to achieve improved access to sustainable transport modes including the health benefits of increased active transport. • Helps to create a travel environment that is and feels safe for all users, day and night.</td>
<td>Children and younger people</td>
<td>Urban areas</td>
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<td></td>
<td></td>
<td>Older people</td>
<td>AQMAs</td>
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<td>Disabled people</td>
<td>Deprived areas</td>
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<td>People from a BAME background</td>
<td>In particular:</td>
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<td>Muslins</td>
<td>Peterborough</td>
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<td>Women</td>
<td>Cambridge</td>
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<td>LGB individuals</td>
<td>Huntingdon</td>
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<tr>
<td>Local transport plan objective</td>
<td>Potential health and equality impacts</td>
<td>Potentially affected groups</td>
<td>Potentially affected geographies</td>
<td>Recommendations</td>
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<tr>
<td>Objective 6: Promote social inclusion through the provision of a sustainable transport network that is affordable and accessible for all</td>
<td>● Helps to reduce the health impacts of exposure to particulates and nitrogen dioxide concentrations.</td>
<td>● Children and younger people</td>
<td>● AQMAs</td>
<td>● Commit to the continued provision of information in non-digital and accessible formats.</td>
</tr>
<tr>
<td></td>
<td>● Helps to achieve improvements to accessibility, connectivity and reduce severance including the holistic health benefits of greater access and reduced social isolation.</td>
<td>● Older people</td>
<td>● New developments</td>
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<td></td>
<td>● Helps to achieve improved access to sustainable transport modes including the health benefits of increased active transport.</td>
<td>● Disabled people</td>
<td>● Urban areas</td>
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<td>● Helps to create a travel environment that is and feels safe.</td>
<td>● Pregnant women</td>
<td>In particular: Peterborough</td>
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<td></td>
<td>● People from a BAME background</td>
<td>Cambridge</td>
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<td>● Women</td>
<td>Huntingdon</td>
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<td>Objective 7: Provide 'healthy streets' and high-quality public realm that puts people first and promotes active lifestyles</td>
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<tr>
<td>Objective 8: Ensure transport initiatives improve air quality across the region to exceed good practice standards</td>
<td>● Helps to reduce the health impacts of exposure to particulates and nitrogen dioxide concentrations. ● Helps to achieve improvements to accessibility, connectivity and reduce severance including the holistic health benefits of greater access and reduced social isolation.</td>
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<td>Include commitments that public transport infrastructure will be improved to minimise crime or criminal activity and maximise feelings of public safety. Explain whether public information campaigns about the health impacts of air pollution will be designed as push or pull measures. Explain a Green Travel Area and the measures to be implemented under this.</td>
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<td>Objective 9: Deliver a transport network that protects and enhances our natural, historic and built environments</td>
<td>● Helps to reduce the health impacts of exposure to particulates and nitrogen dioxide concentrations. ● Helps to address deficiencies in green spaces</td>
<td>Children and younger people Older people Disabled people Pregnant women People from a BAME background Women</td>
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| 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.  
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• Deprived areas  
• Urban areas  
In particular:  
Peterborough  
Cambridge  
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Huntingdon  
Wisbech  
Ely  
Fenland  
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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.  
• Helps to achieve improvements to accessibility, connectivity and reduce severance including the holistic health benefits of greater access and reduced social isolation.  
• Helps to achieve improved access to sustainable transport modes including the health benefits of increased active transport.  
• Helps to reduce overall unemployment, by removing barriers, improving resilience and enabling growth.  
• Helps to address deficiencies in green spaces  
• Helps to create a travel environment that is and feels safe. | • Children and younger people  
• Older people  
• Disabled people  
• Pregnant women  
• People from a BAME background  
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• Transgender individuals  
• LGB individuals | • Rural areas  
• AQMAs  
• Urban areas  
• Deprived areas  
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Ely  
Fenland  
Fens  
Huntingdon  
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March  
Peterborough  
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St Neots | Include assurances that public transport infrastructure will be improved to minimise crime or criminal activity and maximise feelings of public safety.  
Improve the accessibility and inclusivity of transport infrastructure, information provision and vehicles for disabled passengers.  
Incorporate the provision of green space and reference its ability to improve health and wellbeing.  
Include measures that will be used to ensure a safe walking environment, or the which principles of accessibility and good design. |
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## Appendices

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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. 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. 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”.

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 (NOx) (35% of total) and particulate matter (PM) (12% of total). 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 CO₂ than diesel but lower levels of NOx. 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.

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.

A.1.1 Issues caused by air pollution

Harmful air pollutants such as particulate matter, nitrogen oxide and sulphur dioxide can impact human health 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. Air pollution can also lead to the development of new conditions.

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2 Royal College of Physicians (2016): ‘Every breath we take: The lifelong impact of air pollution’
3 DEFRA (2018): ‘Clean air strategy’
4 DEFRA (2019): ‘Air quality: Explaining air pollution – at a glance’
5 Air Quality (date unknown): ‘Air pollution emissions in the UK’
including pneumonia and cancer, and ultimately reduce life expectancy. Emerging research suggests that air pollution might also affect the brain and could be linked to dementia and cognitive decline.

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.

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. 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.

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. 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.

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.  

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.

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.

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19 British Lung Foundation (2017): ‘Risks to your child’s lungs’
21 NHS (2016): ‘Pneumonia’
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

25 DEFRA (2013): ‘Guide to UK air pollution information resources’
26 Asthma UK (2019): ‘Every breath we take: The lifelong impact of air pollution’
27 Peterborough City Council (date unknown): ‘Joint strategic needs assessment: Transport and health’
28 Royal College of Physicians (2016): ‘Every breath we take: The lifelong impact of air pollution’
30 Greater London Assembly (date unknown): ‘Health and exposure to pollution’
31 Royal College of Physicians (2016): ‘Every breath we take: The lifelong impact of 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 physical 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

38 Asthma UK (2018): ‘On the edge: How inequality affects people with asthma’
40 DfT (2016): ‘Cycling and walking investment strategy’
42 Department for Health and Social Care (2017): ‘Childhood obesity: A plan for action’
44 Paulo Rui Anciaes (2014): ‘Community severance: Where is it found and at what cost?’
Disabled people

Reduced air pollution from active travel can also significantly benefit people with a disability as they can disproportionately 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. 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. 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.

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. 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. 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. 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. Active transport, therefore, not only improves these people’s health and wellbeing but can also help to reduce health inequalities more widely.

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. The relationship between transport and social exclusion

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46 Cycling UK (2016): ‘Dr. Rachel Aldred: How disabled people are left out of UK transport strategy’; DfT (2016): ‘Cycling and walking investment strategy’
50 DfT (2016): ‘Walking and cycling statistics in England’
52 Department for Health and Social Care (2017): ‘Childhood obesity: A plan for action’
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 extracurricular 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’
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’
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’
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’
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

71 Rural England (2016): ‘Older people in rural areas: Vulnerability due to loneliness and isolation paper’
72 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

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\(^{77}\) Age UK (2014): ‘Evidence review: Loneliness’

\(^{78}\) Cambridgeshire County Council (2014): ‘Joint strategic needs assessment: Older peoples mental health’

\(^{79}\) Anciæs, P. (2014): ‘Community severance: Where is it found and what cost?’

\(^{80}\) DfT (2012): ‘Transport for everyone: An action plan to promote equality’


\(^{82}\) 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. 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.

### 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.

#### Age: children and young people

The distance children have to travel to school influences transport choices. Longer distances can result in a change from active transportation such as cycling or walking, to sedentary transportation, such as vehicular transport.

#### 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.

#### 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.

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.

#### 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. 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.

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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’
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): ‘Join 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. The amount people walk has decreased and the UK has moved towards a culture of car dependency. 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. The cost of maintaining a vehicle and associated insurance costs disproportionately affects young people due to insurance companies considering them a high risk group. 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.

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. 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. 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. 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%). 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. This means that the economic and social opportunities of people from BAME groups are likely

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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.\textsuperscript{106} 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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{111}

\textsuperscript{106} DfT (2016): ‘Road use statistics in the UK’
\textsuperscript{109} TfL (2012 – 13): ‘Customer satisfaction surveys’
\textsuperscript{110} Campaign for Better Transport (2016): ‘Why getting transport right matters to young people’
\textsuperscript{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. 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. 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. 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. 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. 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. 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. People with mobility impairments feel less confident when travelling, particularly on overcrowded services where they are concerned they may have to stand. 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. 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. 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.
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.\(^{123}\) It was also found that onboard 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

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\(^{122}\) National Literacy Trust (date unknown): ‘Adult literacy’; RNIB (2018): ‘Rail research summary and key recommendations’

\(^{123}\) Transport Focus (2012): ‘Experiences of disabled rail passengers’


\(^{126}\) Ofcom (2018): ‘Access and Inclusion 2018: Consumers’ experiences in communications markets’


\(^{128}\) 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.\(^\text{133}\)

**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.\(^\text{134}\) 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.\(^\text{135}\)

**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 accessible 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.\(^\text{136}\)

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.\(^\text{137}\)

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.\(^\text{138}\) Unemployed and low-income households face limitations in where they live, where they can travel to, and ultimately, how they can travel.\(^\text{139}\)

**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.\(^\text{140}\) Promoting active travel among children also aids development of certain cognitive, motor and physical skills, vital for a child’s growth.\(^\text{141}\) 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.\(^\text{142}\)

**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, steeped hills and a lack of places to rest have been cited in research as reasons older...
people feel anxious about walking. 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.

**Disabled people**

Regular physical activity can improve mental health among people with serious mental illness. 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.

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. 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. 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.

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%). 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.

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.

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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’
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

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. 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. Children who live in overcrowded accommodation have an increased risk of developing respiratory conditions, infections and psychological problems.

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.

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.

**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.

**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. This can make searching for appropriate properties even more challenging.

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161 House of Commons Communities and Local Government Committee (2011) ‘Regeneration Sixth Report of Session 2010-12’
165 Ministry of Housing, Communities & Local Government (2017): ‘English Housing Survey: Private rented sector, 2016-17’
166 Age UK (2014): ‘Housing in later life’
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.\textsuperscript{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,\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{172}

One report clearly states the following facts, highlighting the relationship between households with low income and unaffordable housing costs.\textsuperscript{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.

\textsuperscript{168} Department for Communities and Local Government (2015): ‘English housing survey: adaptations and accessibility report’
\textsuperscript{169} Shelter Scotland (date unknown): ‘Housing rights while pregnant’
\textsuperscript{170} Runnymede Trust (2016): ‘Ethnic inequalities in London: Capital for all’
\textsuperscript{171} Joseph Rowntree Foundation (2015): ‘Housing and poverty’
\textsuperscript{172} Joseph Rowntree Foundation (2015): ‘Housing and poverty’
\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{181}

Best practice inclusive design guidance identifies the following issues to consider:

\begin{itemize}
  \item proximity and links to transport;
\end{itemize}

\textsuperscript{174} Transport for new homes (2018): ‘Project summary and recommendations’

\textsuperscript{175} Sustrans (2016): ‘Our position on how housing growth and planning policy can increase cycling and walking’

\textsuperscript{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’

\textsuperscript{177} Transport for New Homes (2018): ‘Project summary and recommendations July 2018’


• 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

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’
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).\textsuperscript{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).\textsuperscript{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.\textsuperscript{192}

Transport barriers can also limit job search horizons. Young people are less likely to consider long journeys to work than other age groups.\textsuperscript{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.\textsuperscript{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%.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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’.\textsuperscript{198}

Gender reassignment

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\textsuperscript{190} House of Commons Library (2019): ‘Youth Unemployment Statistics’
\textsuperscript{191} House of Commons Library (2019): ‘Women and the Economy’
\textsuperscript{192} Joseph Rowntree Foundation (2010): ‘Youth unemployment in rural areas’
\textsuperscript{193} Centre for Cities (2014): ‘Delivering change: Cities and the youth unemployment challenge’
\textsuperscript{194} Roger Mackett (2013): ‘Improving accessibility for older people: investing in a valuable asset’
\textsuperscript{195} House of Commons Library (2018): ‘People with disabilities in employment’
\textsuperscript{196} DfT (2017): ‘Disabled people’s travel behaviour and attitudes to travel’
\textsuperscript{197} Equality and Human Rights Commission (2017): ‘Being disabled in Britain’
\textsuperscript{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.\(^{208}\)

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\(^{199}\) 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. 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. 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.

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.

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.

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. 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, 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. 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

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210 Sustrans (2013): ‘Why don’t more women cycle?’
211 Sustrans (2013): ‘Why don’t more women cycle?’
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’
rates of obesity and diabetes. 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. 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.

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.

Research has found that children’s physical activity increases when they live in proximity to green space. Exposure to green space at home, at school and during commuting can improve cognitive development and function and reduce the risk of ADHD in children.

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.

Age: older people

Green space can play a fundamental role in facilitating and promoting social interaction, which in turn can support belonging and community and improve happiness. 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.

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. The benefits of green space in improving mental well-being

References:


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 crime²⁴⁰ and fear of crime and concerns about safety can...
undermine their use of green space.\textsuperscript{241} Moreover, if green spaces are poorly designed and maintained they can increase the incidents of crime and anti-social behavior.\textsuperscript{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.\textsuperscript{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%.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{249}

\textsuperscript{242}Houses of Parliament, Parliamentary Office of Science & Technology (2016): ‘Green Space and Health’
\textsuperscript{243} ‘Overcoming barriers and identifying opportunities for everyday walking for disabled people’
\textsuperscript{244}WHO (2016): ‘Urban green spaces and health: A review of evidence’
\textsuperscript{245}WHO Regional Office for Europe (2012): ‘Addressing the social determinants of health: The urban dimension and the role of local government’
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.

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. ‘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.

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.

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. 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. 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.

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.

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251 Active Living Research (2015): ‘Creating places that promote physical activity: Perceiving is believing’
252 Active Living Research (2015): ‘Creating places that promote physical activity: Perceiving is believing’
253 TFL (2013): ‘Attitudes to safety and security: Annual report’
255 Ancoates, 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’
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’
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%). 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. 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.

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. 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.

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.

**Sexual orientation**

Home Office data shows that hate crimes relating to a person’s sexual orientation increased by 27% from the previous year. 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

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266 TfL (2013): ‘Attitudes to safety and security: Annual report’
269 Neighbourhood Watch (2013): ‘Street lighting and perceptions of safety survey, November 2013’
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.\textsuperscript{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%.\textsuperscript{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.\textsuperscript{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.\textsuperscript{275} Drivers aged 17 – 19 are 30% more likely to be involved in an accident than drivers aged 40 – 49.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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).\textsuperscript{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

\begin{thebibliography}{99}
\item StoneWall (2017): ‘LGBT in Britain: Hate crime’
\item Ipsos MORI (2016): ‘Public views of policing in England and Wales. Research report for Her Majesty’s Inspectorate of Constabulary’
\item Active Living Research (2015): ‘Creating places that promote physical activity: Perceiving is believing’
\item DfT (2018): ‘Reported road casualties Great Britain: 2017 annual report’
\item Brake and Direct Line (2012): ‘Young drivers’
\item RoSPA (2018): ‘RoSPA pedestrian safety policy paper’
\item RoSPA (2018): ‘RoSPA pedestrian safety policy paper’
\item RoSPA (2016): ‘Inappropriate vehicle speed’
\end{thebibliography}
is not. A 20mph speed limit also gives drivers a much-improved chance of stopping in time for a child who crosses the road.\textsuperscript{282}

**Age: older people**

Safety concerns relating to older people often focus on road crossings, as highlighted in research by Age UK.\textsuperscript{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.\textsuperscript{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.\textsuperscript{285} Evidence shows that accidents among older pedestrians are most likely to occur during the daytime within 1km of their home.\textsuperscript{286} Road accidents where the driver is elderly have been shown to be more likely to result in death or severe injury.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{291}

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\textsuperscript{282} Brake (2017): ‘Speed limits in communities: Key facts’
\textsuperscript{283} Age UK (2015): ‘The future of transport in an ageing society’
\textsuperscript{284} Age UK (2015): ‘The future of transport in an ageing society’
\textsuperscript{285} RoSPA (2018): ‘RoSPA pedestrian safety policy paper’
\textsuperscript{286} RoSPA (2018): ‘RoSPA pedestrian safety policy paper’
\textsuperscript{287} TRL (2018): ‘Data gathering on disability and driving statistics: Summary report’
\textsuperscript{288} Road Safety Observatory (date unknown): ‘Older drivers’
\textsuperscript{289} Road Safety Observatory (date unknown): ‘Older drivers’
\textsuperscript{290} TRL (2018): ‘Pedestrian safety literature review’
\textsuperscript{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’
294 Brake (2014): ‘Driver gender: Key facts’
295 RoSPA (2018): ‘RoSPA pedestrian safety policy paper’
296 RoSPA (2018): ‘RoSPA pedestrian safety policy paper’
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.\textsuperscript{299}

\begin{itemize}
\item DfT (2015): ‘Facts on pedestrian
\end{itemize}
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.

- 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.

---

300The 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>
<thead>
<tr>
<th>Area</th>
<th>Total population (MYE 2017)</th>
<th>Population under 16</th>
<th>Proportion of total population under 16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peterborough</td>
<td>198,914</td>
<td>45,460</td>
<td>22.9%</td>
</tr>
<tr>
<td>Huntingdonshire</td>
<td>176,979</td>
<td>32,640</td>
<td>18.4%</td>
</tr>
<tr>
<td>South Cambridgeshire</td>
<td>156,705</td>
<td>31,504</td>
<td>20.1%</td>
</tr>
<tr>
<td>Cambridge</td>
<td>124,919</td>
<td>20,703</td>
<td>16.6%</td>
</tr>
<tr>
<td>Fenland</td>
<td>100,776</td>
<td>17,951</td>
<td>17.8%</td>
</tr>
<tr>
<td>East Cambridgeshire</td>
<td>88,858</td>
<td>17,764</td>
<td>20.0%</td>
</tr>
<tr>
<td>Combined Authority</td>
<td>847,151</td>
<td>166,022</td>
<td>19.6%</td>
</tr>
<tr>
<td>England</td>
<td>55,619,430</td>
<td>10,637,971</td>
<td>19.1%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Area</th>
<th>Total population (MYE 2017)</th>
<th>Population 16 - 24</th>
<th>Proportion of total population 16 - 24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peterborough</td>
<td>198,914</td>
<td>19,437</td>
<td>9.8%</td>
</tr>
<tr>
<td>Huntingdonshire</td>
<td>176,979</td>
<td>15,620</td>
<td>8.8%</td>
</tr>
<tr>
<td>South Cambridgeshire</td>
<td>156,705</td>
<td>13,062</td>
<td>8.3%</td>
</tr>
<tr>
<td>Cambridge</td>
<td>124,919</td>
<td>27,959</td>
<td>22.4%</td>
</tr>
<tr>
<td>Fenland</td>
<td>100,776</td>
<td>9,548</td>
<td>9.5%</td>
</tr>
<tr>
<td>East Cambridgeshire</td>
<td>88,858</td>
<td>7,430</td>
<td>8.4%</td>
</tr>
<tr>
<td>Combined Authority</td>
<td>847,151</td>
<td>93,056</td>
<td>11.0%</td>
</tr>
<tr>
<td>England</td>
<td>55,619,430</td>
<td>6,057,265</td>
<td>10.9%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Area</th>
<th>Total population (MYE 2017)</th>
<th>Population 65 and over</th>
<th>Proportion of total population 65 and over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peterborough</td>
<td>198,914</td>
<td>28,970</td>
<td>14.6%</td>
</tr>
<tr>
<td>Huntingdonshire</td>
<td>176,979</td>
<td>34,620</td>
<td>19.6%</td>
</tr>
<tr>
<td>South Cambridgeshire</td>
<td>156,705</td>
<td>30,090</td>
<td>19.2%</td>
</tr>
<tr>
<td>Cambridge</td>
<td>124,919</td>
<td>15,880</td>
<td>12.7%</td>
</tr>
<tr>
<td>Fenland</td>
<td>100,776</td>
<td>22,611</td>
<td>22.4%</td>
</tr>
<tr>
<td>East Cambridgeshire</td>
<td>88,858</td>
<td>17,556</td>
<td>19.8%</td>
</tr>
<tr>
<td>Combined Authority</td>
<td>847,151</td>
<td>149,727</td>
<td>17.7%</td>
</tr>
<tr>
<td>England</td>
<td>55,619,430</td>
<td>10,030,511</td>
<td>18.0%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Area</th>
<th>Total population (2011 Census)</th>
<th>Population with LLTI</th>
<th>Proportion of total population with LLTI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peterborough</td>
<td>183,631</td>
<td>30,591</td>
<td>16.7%</td>
</tr>
<tr>
<td>Huntingdonshire</td>
<td>169,508</td>
<td>25,303</td>
<td>14.9%</td>
</tr>
<tr>
<td>South Cambridgeshire</td>
<td>148,755</td>
<td>20,728</td>
<td>13.9%</td>
</tr>
<tr>
<td>Cambridge</td>
<td>123,867</td>
<td>16,064</td>
<td>13.0%</td>
</tr>
<tr>
<td>Fenland</td>
<td>95,262</td>
<td>20,030</td>
<td>21.0%</td>
</tr>
<tr>
<td>East Cambridgeshire</td>
<td>83,818</td>
<td>12,902</td>
<td>15.4%</td>
</tr>
<tr>
<td>Combined Authority</td>
<td>804,841</td>
<td>125,618</td>
<td>15.6%</td>
</tr>
<tr>
<td>England</td>
<td>53,012,456</td>
<td>9,352,586</td>
<td>17.6%</td>
</tr>
</tbody>
</table>


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


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 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

<table>
<thead>
<tr>
<th>Area</th>
<th>Total population (MYE 2017)</th>
<th>Population of child bearing age (16-44)</th>
<th>Proportion of total population of child bearing age (16-44)</th>
<th>Total fertility rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peterborough</td>
<td>198,914</td>
<td>38,026</td>
<td>19%</td>
<td>2.26</td>
</tr>
<tr>
<td>Huntingdonshire</td>
<td>176,979</td>
<td>29,760</td>
<td>17%</td>
<td>1.79</td>
</tr>
<tr>
<td>South Cambridgeshire</td>
<td>156,705</td>
<td>26,051</td>
<td>17%</td>
<td>1.79</td>
</tr>
<tr>
<td>Cambridge</td>
<td>124,919</td>
<td>29,182</td>
<td>23%</td>
<td>1.55</td>
</tr>
<tr>
<td>Fenland</td>
<td>100,776</td>
<td>16,203</td>
<td>16%</td>
<td>2.03</td>
</tr>
<tr>
<td>East Cambridgeshire</td>
<td>88,858</td>
<td>14,941</td>
<td>17%</td>
<td>1.84</td>
</tr>
<tr>
<td>Combined Authority</td>
<td>847,151</td>
<td>154,163</td>
<td>18%</td>
<td>1.88</td>
</tr>
<tr>
<td>England</td>
<td>55,619,430</td>
<td>10,285,061</td>
<td>18%</td>
<td>1.76</td>
</tr>
</tbody>
</table>

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).


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

<table>
<thead>
<tr>
<th>Area</th>
<th>Total Population (2011 Census)</th>
<th>BAME population</th>
<th>Proportion of total BAME population</th>
<th>Proportion of total Black population</th>
<th>Proportion of total Asian population</th>
<th>Proportion of total Mixed population</th>
<th>Proportion of total Other population</th>
<th>Proportion of total White Other population</th>
<th>Proportion of total White British population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peterborough</td>
<td>183,631</td>
<td>53,399</td>
<td>29.1%</td>
<td>2.3%</td>
<td>11.7%</td>
<td>2.7%</td>
<td>0.8%</td>
<td>11.6%</td>
<td>70.9%</td>
</tr>
<tr>
<td>Huntingdonshire</td>
<td>169,508</td>
<td>17,814</td>
<td>10.5%</td>
<td>1.0%</td>
<td>2.5%</td>
<td>1.5%</td>
<td>0.3%</td>
<td>5.3%</td>
<td>89.5%</td>
</tr>
<tr>
<td>South Cambridges</td>
<td>148,755</td>
<td>18,943</td>
<td>12.7%</td>
<td>0.9%</td>
<td>3.7%</td>
<td>1.7%</td>
<td>0.4%</td>
<td>6.0%</td>
<td>87.3%</td>
</tr>
<tr>
<td>Cambridge</td>
<td>123,867</td>
<td>42,125</td>
<td>34.0%</td>
<td>1.7%</td>
<td>11.0%</td>
<td>3.2%</td>
<td>1.6%</td>
<td>16.5%</td>
<td>66.0%</td>
</tr>
<tr>
<td>Fenland</td>
<td>95,262</td>
<td>9,111</td>
<td>9.6%</td>
<td>0.5%</td>
<td>1.1%</td>
<td>0.9%</td>
<td>0.2%</td>
<td>6.8%</td>
<td>90.4%</td>
</tr>
<tr>
<td>East Cambridges</td>
<td>83,818</td>
<td>8,600</td>
<td>10.3%</td>
<td>0.6%</td>
<td>1.4%</td>
<td>1.4%</td>
<td>0.3%</td>
<td>6.5%</td>
<td>89.7%</td>
</tr>
<tr>
<td>Combined Authority</td>
<td>804,841</td>
<td>149,992</td>
<td>18.6%</td>
<td>1.3%</td>
<td>5.9%</td>
<td>2.0%</td>
<td>0.6%</td>
<td>8.9%</td>
<td>81.4%</td>
</tr>
<tr>
<td>England</td>
<td>53,012,456</td>
<td>10,733,220</td>
<td>20.2%</td>
<td>3.5%</td>
<td>7.8%</td>
<td>2.3%</td>
<td>1.0%</td>
<td>5.7%</td>
<td>79.8%</td>
</tr>
</tbody>
</table>


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.
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

<table>
<thead>
<tr>
<th>Area</th>
<th>Total population (2011 census)</th>
<th>Proportion of total population with minority faith</th>
<th>Proportion of total population with Christian faith</th>
<th>Proportion of total population with no religion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peterborough</td>
<td>183,631</td>
<td>12%</td>
<td>56.7%</td>
<td>24.60%</td>
</tr>
<tr>
<td>Huntingdonshire</td>
<td>169,508</td>
<td>2.40%</td>
<td>60.8%</td>
<td>29.50%</td>
</tr>
<tr>
<td>South Cambridgeshire</td>
<td>148,755</td>
<td>3%</td>
<td>58.8%</td>
<td>30.10%</td>
</tr>
<tr>
<td>Cambridge</td>
<td>123,867</td>
<td>8.30%</td>
<td>44.8%</td>
<td>37.80%</td>
</tr>
<tr>
<td>Fenland</td>
<td>95,262</td>
<td>1.40%</td>
<td>66.4%</td>
<td>25%</td>
</tr>
<tr>
<td>East Cambridgeshire</td>
<td>83,818</td>
<td>1.60%</td>
<td>62.3%</td>
<td>28.10%</td>
</tr>
<tr>
<td>Combined Authority</td>
<td>804,841</td>
<td>5.40%</td>
<td>57.9%</td>
<td>29.10%</td>
</tr>
<tr>
<td>England</td>
<td>53,012,456</td>
<td>8.70%</td>
<td>59.4%</td>
<td>24.70%</td>
</tr>
</tbody>
</table>


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

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

<table>
<thead>
<tr>
<th>Area</th>
<th>Proportion of population that are Female</th>
<th>Proportion of population that are Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peterborough</td>
<td>49.90%</td>
<td>50.10%</td>
</tr>
<tr>
<td>Huntingdonshire</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>South Cambridgeshire</td>
<td>50.60%</td>
<td>49.40%</td>
</tr>
<tr>
<td>Cambridge</td>
<td>48.20%</td>
<td>51.80%</td>
</tr>
<tr>
<td>Fenland</td>
<td>50.60%</td>
<td>49.40%</td>
</tr>
<tr>
<td>East Cambridgeshire</td>
<td>50.70%</td>
<td>49.30%</td>
</tr>
<tr>
<td>Combined Authority</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>England</td>
<td>50.60%</td>
<td>49.40%</td>
</tr>
</tbody>
</table>

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) 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.

Table 50: Proportion of population in multiple deprivation quintiles

<table>
<thead>
<tr>
<th>Area</th>
<th>Total population</th>
<th>Proportion in most deprived quintile</th>
<th>Population in second most deprived quintile</th>
<th>Population in third most deprived quintile</th>
<th>Population in fourth most deprived quintile</th>
<th>Population in least deprived quintile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peterborough</td>
<td>198,914</td>
<td>37.2%</td>
<td>23.9%</td>
<td>17.4%</td>
<td>14.6%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Huntingdonshire</td>
<td>176,979</td>
<td>2.1%</td>
<td>5.5%</td>
<td>27.5%</td>
<td>21.8%</td>
<td>43.0%</td>
</tr>
<tr>
<td>South Cambridgeshire</td>
<td>156,705</td>
<td>0.0%</td>
<td>0.0%</td>
<td>11.4%</td>
<td>35.2%</td>
<td>53.4%</td>
</tr>
<tr>
<td>Cambridge</td>
<td>124,919</td>
<td>2.4%</td>
<td>10.6%</td>
<td>23.6%</td>
<td>35.2%</td>
<td>28.2%</td>
</tr>
<tr>
<td>Fenland</td>
<td>100,776</td>
<td>21.1%</td>
<td>37.2%</td>
<td>29.7%</td>
<td>11.9%</td>
<td>0.0%</td>
</tr>
<tr>
<td>East Cambridgeshire</td>
<td>88,858</td>
<td>0.0%</td>
<td>8.1%</td>
<td>30.9%</td>
<td>24.4%</td>
<td>36.6%</td>
</tr>
<tr>
<td>Combined Authority</td>
<td>847,151</td>
<td>12.0%</td>
<td>13.6%</td>
<td>22.2%</td>
<td>23.6%</td>
<td>28.5%</td>
</tr>
<tr>
<td>England</td>
<td>55,619,430</td>
<td>20.4%</td>
<td>20.6%</td>
<td>20.1%</td>
<td>19.7%</td>
<td>19.3%</td>
</tr>
</tbody>
</table>

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 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

<table>
<thead>
<tr>
<th>Area</th>
<th>Total population</th>
<th>Proportion in most health deprived quintile</th>
<th>Proportion in second most health deprived quintile</th>
<th>Proportion in third most health deprived quintile</th>
<th>Proportion in fourth most health deprived quintile</th>
<th>Proportion in least health deprived quintile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peterborough</td>
<td>198,914</td>
<td>35.0%</td>
<td>29.1%</td>
<td>21.4%</td>
<td>14.5%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Huntingdonshire</td>
<td>176,979</td>
<td>1.1%</td>
<td>3.4%</td>
<td>20.2%</td>
<td>31.4%</td>
<td>43.8%</td>
</tr>
<tr>
<td>South Cambridgeshire</td>
<td>156,705</td>
<td>0.0%</td>
<td>0.0%</td>
<td>5.7%</td>
<td>17.1%</td>
<td>77.2%</td>
</tr>
<tr>
<td>Cambridge</td>
<td>124,919</td>
<td>2.4%</td>
<td>16.2%</td>
<td>20.0%</td>
<td>23.2%</td>
<td>38.3%</td>
</tr>
<tr>
<td>Fenland</td>
<td>100,776</td>
<td>16.8%</td>
<td>54.7%</td>
<td>22.1%</td>
<td>6.4%</td>
<td>0.0%</td>
</tr>
<tr>
<td>East Cambridgeshire</td>
<td>88,858</td>
<td>0.0%</td>
<td>0.0%</td>
<td>6.3%</td>
<td>40.2%</td>
<td>53.5%</td>
</tr>
<tr>
<td><strong>Combined Authority</strong></td>
<td><strong>847,151</strong></td>
<td>10.8%</td>
<td>16.4%</td>
<td>16.5%</td>
<td>21.5%</td>
<td>34.7%</td>
</tr>
<tr>
<td>England</td>
<td>55,619,430</td>
<td>19.9%</td>
<td>20.0%</td>
<td>19.9%</td>
<td>19.9%</td>
<td>20.2%</td>
</tr>
</tbody>
</table>

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 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

<table>
<thead>
<tr>
<th>Area</th>
<th>Total population</th>
<th>Proportion in most income deprived quintile</th>
<th>Proportion in second most income deprived quintile</th>
<th>Proportion in third most income deprived quintile</th>
<th>Proportion in fourth most income deprived quintile</th>
<th>Proportion in least income deprived quintile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peterborough</td>
<td>198,914</td>
<td>36.4%</td>
<td>22.2%</td>
<td>19.3%</td>
<td>11.0%</td>
<td>11.1%</td>
</tr>
<tr>
<td>Huntingdonshire</td>
<td>176,979</td>
<td>1.8%</td>
<td>15.3%</td>
<td>18.3%</td>
<td>32.7%</td>
<td>32.0%</td>
</tr>
<tr>
<td>South Cambridgeshires</td>
<td>156,705</td>
<td>0.0%</td>
<td>2.9%</td>
<td>15.2%</td>
<td>27.2%</td>
<td>54.7%</td>
</tr>
<tr>
<td>Cambridge</td>
<td>124,919</td>
<td>1.2%</td>
<td>12.8%</td>
<td>28.4%</td>
<td>15.1%</td>
<td>42.4%</td>
</tr>
<tr>
<td>Fenland</td>
<td>100,776</td>
<td>11.8%</td>
<td>42.3%</td>
<td>34.6%</td>
<td>11.3%</td>
<td>0.0%</td>
</tr>
<tr>
<td>East Cambridgeshires</td>
<td>88,858</td>
<td>0.0%</td>
<td>6.3%</td>
<td>29.0%</td>
<td>33.1%</td>
<td>31.6%</td>
</tr>
<tr>
<td><strong>Combined Authority</strong></td>
<td><strong>847,151</strong></td>
<td><strong>10.5%</strong></td>
<td><strong>16.5%</strong></td>
<td><strong>22.5%</strong></td>
<td><strong>21.5%</strong></td>
<td><strong>29.0%</strong></td>
</tr>
<tr>
<td>England</td>
<td>55,619,430</td>
<td>20.3%</td>
<td>20.4%</td>
<td>20.1%</td>
<td>19.7%</td>
<td>19.5%</td>
</tr>
</tbody>
</table>

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.
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

<table>
<thead>
<tr>
<th>Area</th>
<th>Total dependent children aged under 16</th>
<th>Total dependent children aged under 20</th>
<th>Percentage of under 16s in low income families</th>
<th>Percentage of all children in low income families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peterborough</td>
<td>44,910</td>
<td>51,600</td>
<td>23.1%</td>
<td>23.1%</td>
</tr>
<tr>
<td>Huntingdonshire</td>
<td>31,045</td>
<td>36,530</td>
<td>12.0%</td>
<td>11.6%</td>
</tr>
<tr>
<td>South Cambridgeshire</td>
<td>28,095</td>
<td>32,805</td>
<td>8.5%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Cambridge</td>
<td>17,055</td>
<td>19,585</td>
<td>15.9%</td>
<td>15.7%</td>
</tr>
<tr>
<td>Fenland</td>
<td>17,595</td>
<td>20,765</td>
<td>21.3%</td>
<td>20.5%</td>
</tr>
<tr>
<td>East Cambridgeshire</td>
<td>15,560</td>
<td>17,950</td>
<td>10.1%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Combined Authority</td>
<td>154,260</td>
<td>179,235</td>
<td>15.9%</td>
<td>15.6%</td>
</tr>
<tr>
<td>England</td>
<td>10,494,895</td>
<td>12,277,080</td>
<td>20.3%</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

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

---

204 Children counted as dependent children under the age of 20 for whom Child Benefit is received

205 Ibid

206 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

207 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

<table>
<thead>
<tr>
<th>Area</th>
<th>Total households</th>
<th>Households with no access to vehicles</th>
<th>Households with access to 1 or more vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peterborough</td>
<td>74,023</td>
<td>24.9%</td>
<td>75.1%</td>
</tr>
<tr>
<td>Huntingdonshire</td>
<td>69,333</td>
<td>13.6%</td>
<td>86.4%</td>
</tr>
<tr>
<td>South Cambridgeshre</td>
<td>59,960</td>
<td>11.0%</td>
<td>89.0%</td>
</tr>
<tr>
<td>Cambridge</td>
<td>46,714</td>
<td>33.6%</td>
<td>66.4%</td>
</tr>
<tr>
<td>Fenland</td>
<td>40,620</td>
<td>18.1%</td>
<td>81.9%</td>
</tr>
<tr>
<td>East Cambridgeshre</td>
<td>34,614</td>
<td>13.0%</td>
<td>87.0%</td>
</tr>
<tr>
<td>Combined Authority</td>
<td>325,264</td>
<td>19.1%</td>
<td>80.9%</td>
</tr>
<tr>
<td>England</td>
<td>22,063,368</td>
<td>25.8%</td>
<td>74.2%</td>
</tr>
</tbody>
</table>


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

![Map showing proportion of households with no car](image)


### 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

<table>
<thead>
<tr>
<th>Area</th>
<th>Life expectancy at birth for male babies born between 2010 and 2012</th>
<th>Life expectancy at birth for female babies born between 2010 and 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peterborough</td>
<td>77.9</td>
<td>82.5</td>
</tr>
<tr>
<td>Huntingdonshire</td>
<td>80.9</td>
<td>84.4</td>
</tr>
<tr>
<td>South Cambridgeshire</td>
<td>82.8</td>
<td>85.9</td>
</tr>
<tr>
<td>Cambridge</td>
<td>79.9</td>
<td>84.5</td>
</tr>
<tr>
<td>Fenland</td>
<td>79.1</td>
<td>82.8</td>
</tr>
<tr>
<td>East Cambridgeshire</td>
<td>81.5</td>
<td>85.3</td>
</tr>
<tr>
<td>Combined Authority</td>
<td>80.4</td>
<td>84.2</td>
</tr>
<tr>
<td>England</td>
<td>79.2</td>
<td>83.0</td>
</tr>
</tbody>
</table>

Source: Life expectancy at birth and age 65 for local areas in England and Wales 2010-2012
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