

## 4. WIDER SOCIAL DETERMINANTS OF HEALTH

### 4.3 Place

#### 4.3.1 Housing and Homelessness (coming soon)

#### 4.3.2 Geographic Accessibility

The ability to access key services, education, employment and green spaces is essential to the well-being of Buckinghamshire residents. Due to the rural nature of the county, those without sufficient access, particularly the elderly, young and disabled, can become isolated, leading to health issues and sedentary lifestyles. Poor access can result in both social deprivation and economic exclusion, affecting quality of life; however interventions such as improved planning and transport can play an important role to help ensure that the barriers of geographic accessibility can be overcome.

##### 4.3.2.1 The impact of geographic accessibility

Buckinghamshire is a predominantly rural county, with over a third of the population living within the main centres of Aylesbury and High Wycombe. The county is set to grow significantly, with the population projected to increase by nearly 5% to 531,400 between 2011 and 2026. The majority of this growth will be seen in the urban areas (particularly the two main centres) meaning that rural areas are likely to continue to face issues with geographic accessibility.

This growth will lead to a significant increase in vulnerable age-groups, particularly the elderly. There will be an additional 32,900 people aged 65 and over, rising from 84,900 to 117,800. The number of people aged 90 and over is expected to more than double by 2026 (with the most pronounced increase in Aylesbury Vale, projected at 57%). Aylesbury Vale is the most rural and therefore potentially inaccessible district within the county, therefore it is essential that the accessibility needs of the ageing population are considered and catered for.

##### i) Car ownership and use trends:

- 87% of households in Buckinghamshire have access to one or more cars. This is higher than the South East (82%) and significantly higher than the national average (74%)<sup>1</sup>
- Since the 2001 census, vehicle ownership has increased further with vehicles with more households owning four or more cars (with a decrease in those owning only one car)
- 13% of households in Buckinghamshire don't have access to a car, which is significantly lower than the national average (27%). This reflects the economic affluence and rural nature of the majority of the county

- Around 70% of people travel to work by car, significantly higher than the national average (63%). This varies slightly between those from rural (71%) and urban areas (69%)

For the 13% that do not have access to a car (and those that do), it is important that alternative options are in place to allow access to key services and facilities. This could include providing public or alternative transport (such as buses or car share schemes); bringing facilities to rural areas; or providing broadband to negate the need to travel.

#### 4.3.2.2 Trends

Graph 1 highlights the areas of the county which suffered from low levels of accessibility to a combination of key local services by road in 2007 (i.e. GP surgeries, general stores and supermarkets, primary schools, post office or sub post offices). As would be expected, the rural areas are more isolated than the urban due to proximity of services, facilities and availability of public transport. Since this time car ownership has risen, local services have reduced, and therefore those without access to a car (particularly in the more rural, isolated areas) have suffered further in terms of accessibility.<sup>2</sup>

As indicated in map 1, there is a clear correlation between accessibility and proximity to urban centres. Consequently the more rural Districts such as Aylesbury Vale have the greater expanses of geographic inaccessibility.

#### 4.3.2.3 Demand

Buses and community transport are an important way of overcoming geographical barriers and increasing accessibility to services and amenities. The Council currently invests around £24 million a year in supporting public transport services (including: home to school services; services for adult social care; concessionary fares; and supporting buses which aren't commercially viable). However the county is set to significantly grow (causing more demand, particularly from the elderly) and funding from central Government is reducing, putting pressure onto public transport provision. Consequently it is essential that future planning and funding for public transport in the county is targeted to best meet the needs of residents (particularly the most vulnerable and isolated).

The Travel Bucks Strategy (2012)<sup>3</sup> set out how accessible transport options could be provided for residents living in Buckinghamshire with reduced budgets, smarter partnership working and development of an innovative combination of core bus services and community led transport solutions. The Council has since worked closely with partners to encourage and deliver improvements, i.e. with:

- Bus operators and other partners to promote and develop more commercial bus routes, and ensure that subsidised services are targeted at areas most in need

- Rail operators to better integrate bus and rail timetables, and to improve services
- Buckinghamshire NHS Trust to:
  - create new and improved bus routes serving the three main hospitals in the county; and
  - develop a Community Transport Information Hub to help signpost those unable to access mainstream public transport
- Third sector organisations such as Community Impact Bucks to support and develop community transport schemes (ranging from small voluntary car schemes through to Dial-a-Ride and Community Minibuses operating daily timetables)

#### 4.3.2.4 Horizon scanning

Following on from the initial progress made through the Travel Bucks Strategy, BCC is progressing with a new 'Total Transport' approach to meet Buckinghamshire's access needs, making the most of new opportunities provided by technology and the increasing power being given to our communities.

This 'Total Transport' approach will:

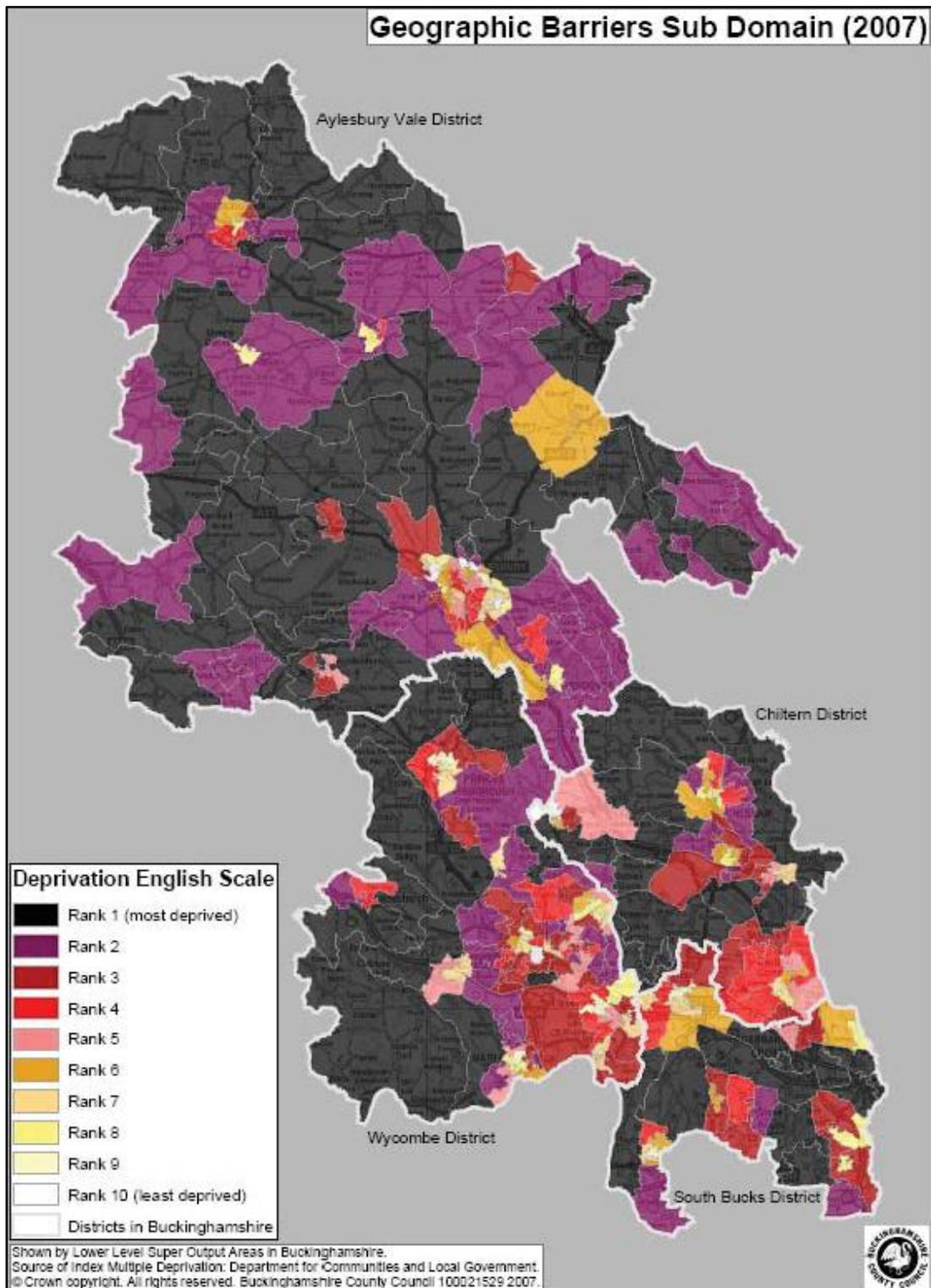
- Establish an 'Integrated Transport Hub' – bringing the teams in the Council that deal with public transport together in one Business Unit. This will allow for more efficient working and assist with identifying new ways to provide transport services
- Create an Improvement Plan to implement 'quick wins' that improve the way BCC works in the short term
- Develop pilot studies, involving local communities and other stakeholders, to try out new ways of providing transport services

BCC will also continue to work closely with partners to improve geographic accessibility by:

- Ensuring that new developments:
  - create travel plans to understand and cater for the access needs of their residents / users
  - deliver the right public transport provision; and
  - create an integrated cycling, walking and public transport network (on and off site).
- Helping to improve public transport information
- Ensuring that public transport services best meet the county's need, now and in the future
- Exploring opportunities for car clubs and car sharing initiatives (as an alternative to car ownership and also to improve accessibility);
- Pursuing innovative taxi-sharing schemes to save public cost and increase usage

- Improving our rail stations and supporting rail partnerships to get the best out of the existing transport network

**Map 1: Geographic barriers sub domain deprivation indicator (2007) (Source: Index of Multiple Deprivation: DCLG)**



### 4.3.3 Air Quality

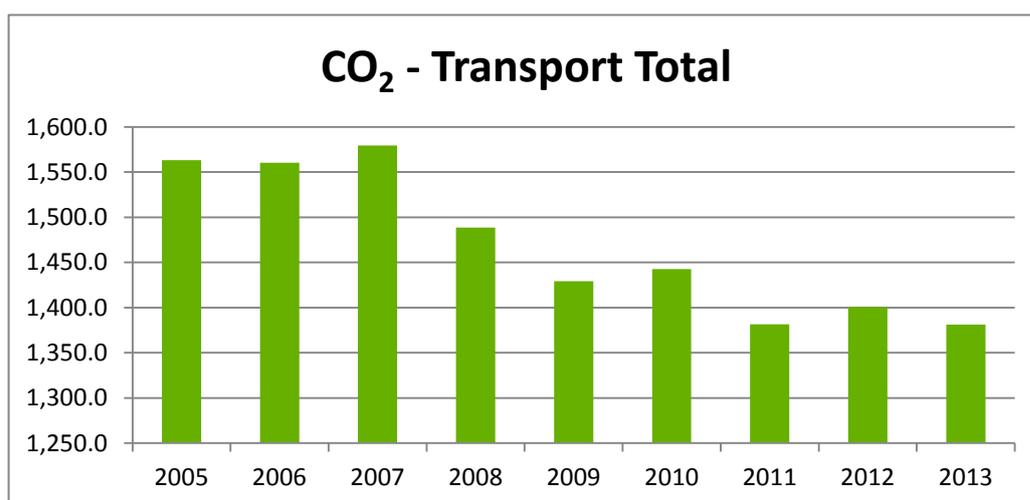
Poor air quality is a risk to public health and wellbeing. It can lead to respiratory problems such as asthma, with children and the elderly being particularly susceptible. Buckinghamshire's population is projected to increase by nearly 5% between 2011 and 2026, the greatest percentage increase will be the proportion of people aged 65 and above. It is essential that this growth is managed appropriately to minimise impact on air quality and therefore reduce potential impact on health and wellbeing of the most vulnerable.

#### 4.3.3.1 The impact of air quality

Whilst air quality in the Buckinghamshire area is generally good compared to the National Air Quality Standard; there are a number of areas in the county with unacceptably high levels of pollution which mainly originate from vehicle emissions on busy roads. Local authorities in the UK have a statutory duty for local air quality management. In an attempt to minimise the effects of air pollution on health and the environment, the Bucks Air Quality Management Group was established (consisting of the District and County Councils, Milton Keynes Council, and the Strategic Health Authority). This group subsequently published the Buckinghamshire and Milton Keynes Regional Air Quality Strategy in 2006, setting out a framework for future air quality management (particularly in terms of local transport planning). A recent court case has resulted in DEFRA being obligated to improve their Local Air Quality Monitoring Plans for Nitrogen Dioxide. This resulted in a consultation and new Local Air Quality Plans will be published in early/mid 2016. The BAQM has inputted to this and will in line with other Local Authorities make the necessary changes to support and carry out the new plans.

Vehicular traffic is the main source of most air pollutants. Car ownership in Buckinghamshire is high and in 2007 the average CO<sub>2</sub> emissions released per person across the county from cars, lorries and vans was 50% higher than the national average<sup>4</sup>. This is likely to relate to the county's relative affluence (which tends to support higher levels of energy use) and semi-rural nature (with high levels of car use and above average journey distances). However, overall Buckinghamshire has reduced its transport related carbon footprint year on year.

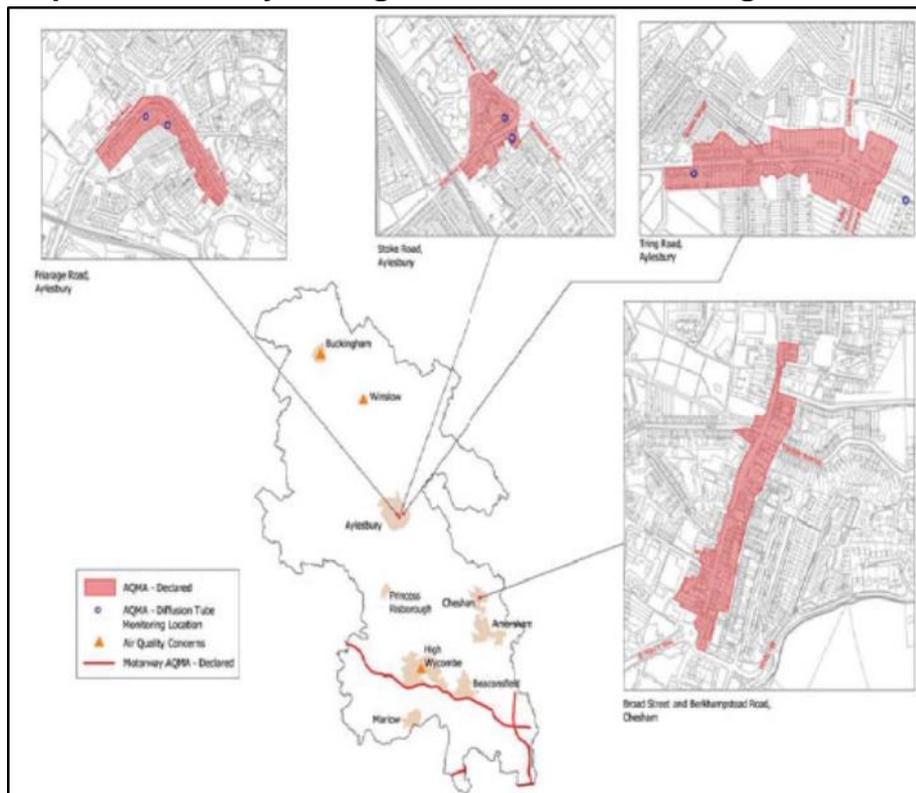
**Graph 2: Yearly CO<sub>2</sub> emissions from Transport in Buckinghamshire**



#### 4.3.3.2 Trends

There are currently four Air Quality Management Areas (AQMAs) in Buckinghamshire, where air quality standards are not met and where Action Plans are in place. These are the M40 throughout Wycombe and South Bucks districts, sections of the M4 and M25 that pass through South Bucks district, Aylesbury (3 individual sites) and Chesham. Air quality problems are also apparent in High Wycombe and Marlow; it is proposed to declare AQMA's in these areas as soon as practicable (See map 1).

**Map 1: Air Quality Management Areas in Buckinghamshire<sup>5</sup>**



#### 4.3.3.3 Inequalities

There appears to be no correlation between social inequality and deprivation as a result of living close to an AQMA. However, most of the AQMAs in Buckinghamshire are as a result of a major road (M40) or areas with known traffic congestion (Tring Road and the Gyratory, Aylesbury).

Surrounding Local Authorities vary between having 1 and 5 AQMA's. Buckinghamshire is similar in that each of the Local Authorities has 1 with the exception of Aylesbury which has 3.

Buckinghamshire's population is projected to increase by nearly 5% between 2011 and 2026 to 531,400. During this time it is predicted that there will be an increase in

the proportion of age groups that are most vulnerable to poor air quality, which is a major concern:

- Aged 65 and above - increase from 17% (84,900) to 22% (117,800)
  - slightly higher than the rate for the South East
  - number aged 90 and over is expected to more than double by 2026
- Age 0-19 – increase by 5%

To accommodate population growth, there are currently plans to build a further 17,000 houses across Buckinghamshire, predominantly in Aylesbury and High Wycombe. Aylesbury already has 3 AQMAs, and High Wycombe has recognised air quality problems. Due to the amount of growth planned increased vehicular use is inevitable, therefore it is essential that traffic is appropriately planned for and managed to mitigate against the impact on air quality. Alternatives to vehicle use (especially during the busy peak periods) will be heavily promoted in order to help minimise the increase in traffic and congestion.

#### 4.3.3.4 Horizon scanning

Nitrogen dioxide (NO<sub>2</sub>) is the main pollutant responsible for Buckinghamshire's existing AQMAs. The main source of nitrogen dioxide is road traffic, so the way we manage transport has an important part to play in improving air quality in these AQMAs. The Local Transport Plan 4 will set the policy context and future plans to help minimise air pollution caused by vehicular traffic. For example through:

- Encouraging the use of alternative fuel vehicles, such as hybrid or electric cars and buses
- Promoting the use of sustainable forms of travel such as walking, cycling and public transport through creation of more cycling lanes, bike stands, and electric charge points etc.
- Promoting car clubs and lift-sharing for journeys where the car is necessary
- Appropriate routing of HGVs (Freight Strategy)
- Encouraging, where possible, the transport of freight by train
- Working with partners to minimise the impact of traffic (such as Government and Highways England)
- Urban Traffic Management Control (UTMC) - the integrated use of technology to better manage and monitor traffic through, among other things, the use of variable message signs, real time public transport information, traffic counters, traffic signals, CCTV and ANPR cameras
- Traffic Management plans to prevent stalled traffic such as parking enforcement, no idling of cars, smarter road work operations
- Implementation of low emission zones where feasible to encourage take up of less polluting vehicles and more sustainable forms of travel

- Promoting the retrofitting of buses and taxis and purchasing of new low emission vehicles

#### 4.3.4 Noise

Noise can significantly impact on people's health and wellbeing. Whilst noise is often more of a severe problem in urban, built up areas, rural communities in many parts of the County also suffer. Noise pollution is more normally associated with neighbourhood noise or commercial noise (i.e. pubs, clubs etc.) however transport can also cause high levels of noise pollution, especially near major settlements, industry, main roads, rail and airports. It can affect our quality of life, health and our special environments.

##### 4.3.4.1 The impact of noise

Government's Noise Policy Statement for England came into force in 2010. It applies to all forms of noise including environmental noise, neighbour noise and neighbourhood noise (but not noise in the workplace). The Policy's long-term vision is to *"Promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development"*. It aims to ensure that noise is effectively managed at an appropriate stage, in conjunction with other decisions (not in isolation).

The National Planning Policy Framework (NPPF) came into force in March 2012, with s.123, stating that planning policies and decisions should aim to *"avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of new development"*. With the current and future growth planned for Buckinghamshire in terms of housing, employment and also strategic transport infrastructure, it is vital that noise impact is considered at an early stage and managed accordingly.

As part of the European Environmental Noise Directive, Department for Environment, Food and Rural Affairs (DEFRA) have undertaken a strategic survey to identify noise issues on railways and roads. As part of the directive, DEFRA developed Noise Action Plans in 2014 for the 65 END Agglomerations (urban areas with a population in excess of 100,000 persons and a population density equal to or greater than 500 people per km<sup>2</sup>). The Action Plans aim to promote health and good quality of life through effective noise management. The High Wycombe Urban Area is one of the Agglomerations included within the Action Plans. Additionally for various sections of roads and railways as well as Wycombe Air Park the noise producers have been required to draw up Action Plans.

##### 4.3.4.2 Trends

Neighbourhood noise can differ across the county, however transport related noise is most prevalent near to major roads (such as the motorways and A-roads), urban centres, industry, railways and proximity to airports (i.e. South Bucks in relation to Heathrow). This is indicated in the Agglomeration Noise Action Plan published in January 2014 where data from the High Wycombe Urban Area shows that the noise pollution from traffic (75,000 total  $L_{den}^1$ ) is far greater than that of railways (7,000 total  $L_{den}$ )

District Councils have legal powers under The Environmental Protection Act (EPA) 1990 to deal with noise where it is defined as a statutory nuisance (i.e. noise that is seriously affecting the peace and quiet of someone's home or is as a result of unreasonable behaviour). There are some exemptions to this legislation, including: aircraft in flight; children playing; road traffic and domestic living noises.

In Buckinghamshire, the majority of noise pollution is in the south of the County in the Wycombe and South Bucks Districts. This is due to the more urban nature of these districts and their proximity to major motorways. That is not to say that there is no noise pollution in Aylesbury Vale and Chiltern districts, however the effects are more localised in these regions.

Buckinghamshire's population is projected to increase by nearly 5% between 2011 and 2026 to 531,400. It is predicted that by 2026, 69% of the population in Buckinghamshire will live in either Aylesbury or High Wycombe. To accommodate population growth, there are currently plans to build a further 17,000 houses across Buckinghamshire (primarily in the two main towns). This will inevitably impact on noise, particularly in relation to road traffic; therefore it is essential that this growth is managed, with the impact on noise being considered at an early stage in transport planning. Development Management will be particularly important from the outset of planning applications in order to influence construction traffic.

There are also a number of strategic transport schemes which are either underway or proposed for the county. This will significantly impact on noise, therefore BCC is working closely with Government and other key organisations in order to minimise the impact and gain mitigation measures. These schemes include:

- Rail – High Speed 2; Crossrail; East West Rail; Western Rail Access to Heathrow (noise impact from construction traffic, new depots, and new/increased rail services)
- Aviation – Heathrow expansion (noise impact from construction, increased flights, closeness to runways, and increased ground traffic)

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<sup>1</sup>  $L_{den}$  : Day-evening-night equivalent level : A-weighted, Leg. noise level, measured over the 24 hour period, with a 10 dB penalty added to the levels between 23.00 and 07.00 hours and a 5 dB penalty added to the levels between 19.00 and 23.00 hours to reflect people's extra sensitivity to noise during the night and the evening.

- Road – M40 ‘Smart Motorway’, Oxford to Cambridge Expressway, local strategic road schemes (noise impact from construction traffic and funnelling traffic (including HGVs) through new routes)

#### 4.3.4.3 Horizon scanning

Transport can play a big part in reducing noise pollution. The Local Transport Plan 4 will set the policy context and future plans to help combat noise pollution caused by road travel generally. For example through:

- Encouraging the use of quieter vehicles options, such as hybrid or electric cars and buses
- Promoting the use of sustainable forms of travel (such as walking, cycling and public transport, and encouraging the use of travel plans)
- Appropriate routing of HGVs (Freight Strategy)
- Encouraging, where possible, the transport of freight by train;
- Resurfacing roads with noise reducing tarmac
- Managing the transport impacts of new developments
- Working with partners to minimise the impact of noise (such as Government, airports, rail operating companies, and Highways England)
- In addition, due to the amount of growth identified in the Vale of Aylesbury Local Plan, two Transport Strategies are being developed; the Aylesbury Transport Strategy and the Buckingham Transport Strategy. These strategies are high level documents that will help to mitigate the impact of new development through various transport schemes (including both physical and behavioural measures) and this will in turn help to reduce the additional noise pollution that may occur from the developments

#### *4.3.5 Green Spaces*

Green infrastructure (GI) is a planned network of multifunctional green spaces and interconnecting links, designed, developed and managed to meet environmental aims to link and support habitats and biodiversity, as well as social and economic needs. GI is set within, and contributes to, a high quality natural and built environment and is required to enhance the quality of life for both present and future residents and visitors. GI benefits the health and mental wellbeing of local people and communities as well as wildlife, biodiversity and the economy – particularly inward investment, regeneration and tourism. For example, green infrastructure needs to be provided in and around areas close to where people live and work to accommodate healthy lifestyles and provide opportunities for active and passive recreation, exercise, enjoyment, to connect people with nature and promote general wellbeing. The GI network can also connect urban areas with surrounding countryside and so provide opportunities for communities to access, and enjoy a variety of green spaces<sup>6</sup>.

It is important that the JSNA considers the potential impact that the huge level of growth planned within Buckinghamshire could have on our green space, by continuing to plan to enhance and protect existing green infrastructure (GI<sup>2,3</sup>), or, where resources are limited, to supply new GI. The JSNA must ensure that communities have access to high quality, bio-diverse and valued green spaces by utilising all available opportunities to enhance our natural environment. This includes for planners and developers to give due consideration to linking and enhancing GI opportunities falling beyond development site boundaries. GI planning should have equal importance to traditional “grey” infrastructure planning.

GI and green spaces help to facilitate the delivery of multiple public health objectives as it can frame and shape the growth of sustainable communities and strengthen their image. It can help to define people’s quality of life and liveability, and underpins the quality, character and distinctiveness of new neighbourhoods. The JSNA has a unique opportunity to support community’s entitlement to access to green spaces, and understand that use and access to green spaces are an essential part of community life and place making. It is also important that that we consider the availability and types of green space and infrastructure within Buckinghamshire, and to understand where there are gaps.

#### 4.3.5.1 The impact of green spaces

GI is an important resource that needs to be protected, planned for and managed into the long-term. We must be seeking to promote the development and linkage of GI and green spaces in urban and rural areas across the County. We have an opportunity to utilise Buckinghamshire’s Green Infrastructure Strategy<sup>7</sup> which identifies priority areas for GI investment and identifies the need for ongoing long-term management and maintenance of GI assets, and to minimise pressure on GI assets and to maximise opportunities to enhance them so that the multiple benefits are maximised.

The GI Strategy also outlines various options for delivering, and funding investment in, green infrastructure to create long term health benefits for our residents. Buckinghamshire’s residents need to have the right infrastructure in place to use green spaces, so that they can work together and support their natural environments, encouraging ecological habitats and allowing community’s ownership of green spaces to encourage their use and ongoing improvement. Town and parish councils should lead on engaging residents to encourage the use of GI and to

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<sup>2</sup> The National Planning Policy Framework (NPPF, March 2012) redefined GI as: ‘a network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities’

<sup>3</sup> The Buckinghamshire Green Infrastructure Consortium endorsed the following definition: “*Green Infrastructure provides a vital life-support system, encompassing a network of green spaces, access routes, landscapes and natural and historic elements that intersperse and connect Buckinghamshire’s urban and rural settlements with each other and the surrounding countryside. Operating at all spatial scales, it enables a holistic overview of the natural and historic environment, acknowledging its multi-functional benefits for economy, wildlife and health and wellbeing of local people and communities*”.

develop a sense of community ownership. Parish and Town Councils need to be including in GI strategy from an early stage.

Government advice stresses the importance of retaining green spaces in cities, towns and villages, and the need for new green spaces in conjunction with new housing development. Their guidance states that Local Green Space designation is a way to provide special protection against development for green areas of particular importance to local communities. Open green space is required to accommodate a variety of special recreational pursuits and to contribute to the visual amenity of the locality.

The GI resource available in Buckinghamshire is highly varied and includes land which is normally available for open access on foot. This includes:

- Country Parks e.g. Black Park, Langley Park, Denham and Thorney
- 43ha of Open Access land provided under the provisions of the Countryside and Rights of Way Act 2000 which includes commons, heaths and downs. The County has a 3324km Rights of Way network, which is predominantly a 'walking' network with c. 2600km of footpaths of which c. 1270km are promoted recreational routes
- Forestry Commission land; National Trust land; Woodland Trust land
- Nature Reserves managed by the Royal Society for the Protection of Birds and the Berkshire, Buckinghamshire, Oxfordshire Wildlife Trust (BBOWT) , the Chiltern Society and Chiltern Rangers
- Designated sites include 3 Special Areas for Conservation, 2 National Nature Reserves, 60 Sites of Special Scientific Interest, 342 Local Wildlife Sites (formerly County Wildlife Sites), 15 Local Nature Reserves and over 1000 Biological Notification Sites
- Historic Environment which includes ancient forests and woodland, 34 registered historic parks and gardens, 141 scheduled monuments, 6,000 listed buildings including 17 National Trust properties, and 16,000 archaeological sites
- Distinctive, High Quality and Diverse Landscapes which includes Chilterns AONB and the Metropolitan Green belt which currently covers a third of Buckinghamshire
- Parks and public spaces located in towns and parishes, some of which includes sports pitches, play areas, meadows, woodland, and areas for informal recreation
- Canals and Rivers Trust land, which are key to providing links to wider countryside

#### 4.3.5.2 Trends

Local government funding reductions are seeing a transfer of green spaces from council management to third parties, sometimes via long term lease, freehold transfer or management contract.

Increasing pressure from Government, from developers and from landowners to increase house building nationally is placing pressure on green space within and around urban areas.

Reductions in funding are also affecting the regular maintenance of green spaces: reduced management regimes can have beneficial consequences for biodiversity balanced with a reduction in access or use by local residents if maintained as meadowland. Reductions also reduce projects to increase use or promote green space activity and the development of new green spaces.

#### 4.3.5.3 Inequalities

While areas such as the Chilterns, South Bucks and the Thames Valley are well-provided for in terms of strategic level accessible Green Infrastructure, much of Aylesbury Vale, which forms approximately 50 per cent of the County, is deficient of provision<sup>8</sup>. The county is also deficient in larger-scale accessible natural greenspace (see figure 7 Publicly Accessible Green infrastructure in Buckinghamshire)<sup>9</sup>.

For example, the GI Strategy found that only 5 of the 19 settlements assessed has access to green space over 100ha (Aston Clinton, Buckingham, Wendover, Amersham, Chesham); and the County does not have its own “sub-regional” scale of GI (a 500ha site) – communities rely on visiting assets across the county’s boundaries. But a large-scale site could be developed through extending existing site boundaries or improving linkages between sites – for example the 325ha site of Wendover Woods near Aylesbury.

The Buckinghamshire Green Infrastructure Strategy assessed green infrastructure provision, opportunity and deficiency at the strategic scale<sup>4</sup>, and modelled, over the next 20 years, proposed development growth, current GI assets and the needs of growth communities. As a result, the Strategy established three “Priority Action Areas” in the County, where targeting investment in GI is most likely to deliver multiple benefits, address existing GI deficiencies and/or respond to expected pressure from growth. These are:

- Priority Action Area 1: North Aylesbury Vale – where deficiency in accessible GI is most prominent. This Action Area aims to provide for the needs of communities on the west side of Milton Keynes, Leighton-

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<sup>4</sup> By examining accessible greenspace, biodiversity, heritage, access routes and landscapes using the “ANGSt model” (Accessible Natural Greenspace Standard) which is a best-fit model for GI planning and assessment. ANGSt emphasises the importance of communities having easy access to different sizes of natural and semi-natural green spaces close to where they live; the standard can enable comparable measures of provision and quality of life opportunities between communities.

Linslade, Buckingham and Winslow; and to help buffer associated pressures of growth between counties

- Priority Action Area 2: Aylesbury Environs – there are plans for significant growth to 2026 in this area, and there is a need to address both existing and future community needs, including GI
- Priority Action Area 3: Wycombe District South and South Bucks – which, although is served by a range of GI assets, much is fragmented and under pressure from large surrounding “catchment” populations, so needs to be protected and new GI identified.<sup>10</sup>

The county is primarily rural, with a rich and varied landscape. The green space assets within the southern parts of the county are significantly influenced by the Chilterns AONB and the Metropolitan Green Belt designations, which sit next to the contrasting open landscape of Aylesbury Vale. Buckinghamshire holds important GI links such as the River Thames, Grand Union Canal and several Royal Hunting Forests such as Bernwood Forest and Whaddon Chase. It also has 800 acres of park land, a large rights of way network including 580km of bridleways, 60 SSSI’s and 342 Local Wildlife Sites, Historic Environments such as Ancient Woodlands, and Stowe Park and Waddesdon Manor, and distinctive high quality landscapes such as Clayland Farms and Whittlewood Ridge. It is important that the JSNA provides a link between these strategic GI assets and the future growth of the county, including residential and commercial development, transport, as well as national infrastructure projects such as HS2.

**Table 14: Percent of households that meet ANGSt requirements in Buckinghamshire**

District area	No. of dwellings	% of households meeting requirement						
		Within 300m of 2ha+ site	Within 2km of 20ha+ site	Within 5km of 100 ha+ site	Within 10km of 500ha+ site	Meeting all ANGSt requirements	Meeting none of the ANGSt requirements	Served only by linear greenspaces
Aylesbury Vale	68,248	7	16	27	15	1	69	32
Chiltern	37,514	16	59	70	33	2	0	0
South Bucks	26,727	24	86	100	46	7	0	0
Wycombe	66,689	28	89	96	0	0	2	1
<b>Total County</b>	<b>199,178</b>	<b>18</b>	<b>58</b>	<b>68</b>	<b>18</b>	<b>2</b>	<b>24</b>	<b>11</b>

Applying Accessible Natural Greenspace Standard (ANGSt) to the county's database of Green Infrastructure opportunities identifies a broad range of issues and opportunities. At a strategic level it establishes that, whilst areas such as the Chilterns, South Bucks and Wycombe are well provided for, much of Aylesbury Vale is deficient of accessible Green Infrastructure provision (see table 14)<sup>11</sup>.

The GI Strategy set out green infrastructure priorities at a county-level by looking at access to green space mainly over 2 ha in size, and countryside access routes, so largely outside the urban areas in Buckinghamshire. The Strategy aims to link, guide and underpin local Green Infrastructure Plans, Greenspace Strategies, and green space planning that may be required of housing development through local planning policy. The Strategy acts to underpin and inform Local Green Infrastructure Plans to be developed within the Priority Action Areas to suit local circumstances.

The Districts local plans, which are at the heart of our planning system, set out the vision and framework for the future development of their areas, and they are required to address the local area needs, which includes open space and local green space. Their allocations for housing delivery is required to include the provision of appropriate public open space, of which they must respect the historic layout, scale and form of buildings, street patterns, links to existing open space, and natural features in areas that contribute to the individual character and appearance of each district. Protecting existing open spaces, whatever their function, contribute a great deal to the character of the district, the quality of the environment, and the health and wellbeing of residents and workers.

Difficulties in providing new open spaces within the existing built-up area serve to emphasise the importance of retaining, linking to, and making best use of those that already exist. These challenges also highlight the most important point of new developments, in that developers must provide sufficient open space and not seek to avoid this by provided a financial contribution for off-site provision. The need to protect open space that contributes towards meeting community needs for both formal and informal recreation is vital in creating sustainable communities.

Conservation of the environment features prominently throughout the Plans, and policy themes include the maintenance of the Green Belt, the conservation of the landscapes of the Chilterns AONB, historic areas, and other landscapes with special qualities. The retention and creation of attractive residential areas relies on the provision of public open spaces, sustaining quality lifestyles, as well as contributing to the local economy, job opportunities, and the safeguarding and conservation of the District's ecological, historical and cultural heritage. In recognition of the significant amenity value of open spaces to the local communities in which they are located, the District's local plans should aim to safeguard them against inappropriate development and to conserve and where possible enhance their character.

**Table 15: Green belt figures**

<b>Green belt figures</b>	
<b>District</b>	<b>Hectares</b>
Aylesbury Vale	4,800
Chiltern	17,380
South Bucks	12,350
Wycombe	15,630

Current pressures on the county include the countywide green belt assessment and BCC's Replacement Minerals and Waste Local Plan. Between the four district councils, there is over 50,000 hectares of green belt within the county. A green belt assessment is currently being undertaken between the four districts and BCC, to provide evidence of how different areas perform against the Green Belt purposes set out in national policy. The authorities may then take this into consideration through their land supply assessment and this may lead to possible changes to the green belt.

BCC's Replacement Minerals and Waste Local Plan will make new sites allocations for both mineral extraction and waste recovery uses throughout the county. It needs to identify land for additional capacity of local recycling and composting, and new sites for future sand and gravel working so as to maintain a land bank sufficient for 7 years working throughout the Plan period. This could potentially put pressure on the green space available for areas where reserve sites are allocated, and their surrounding landscapes. However, an additional after use policy for mineral extraction is to be included, as minerals sites are required by planning law to be reclaimed. Reclamation options related to community green space include creating new or extended habitats for wildlife, enhancing or extending public rights of way, and opportunities for protecting geodiversity.

#### 4.3.5.4 Horizon scanning

The future projections of housing and employment growth will also impact how local authorities ensure local green space is provided and existing retained. Based on the Housing and Economic Development Needs Assessment (HEDNA), Buckinghamshire has been identified to need over 50,000 dwellings during the 20 year period 2013-33. It is critical that new green space of a variety of types is incorporated within the major new housing developments.

Buckinghamshire has a "Green Infrastructure Delivery Plan" – a schedule of Green Infrastructure projects within each Priority Action Area. This Plan is key to the delivery of strategic Green Infrastructure, responds to the needs and opportunities assessed in the Buckinghamshire GI Strategy and reflects actions to address perceived needs for enhanced GI provision across the county<sup>12</sup>.

Looking to the future, BCC and Local Planning Authorities must work together to map existing green infrastructure and future needs, as well as using this information to encourage and promote use of green space within existing and new communities, and in turn, promote physical activity amongst residents. BCC planning policy is also considering the use of reclamation of minerals working land by turning it into public green space and for enhancing biodiversity. Investment to create, develop, and maintain green space is important and must be fully accounted for to ensure financial sustainability. Alongside this consideration should be given to the health benefits of providing quality green space that will help reduce costs for future health issues that arise due to a lack physical activity and/or mental wellbeing.

## References

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<sup>1</sup> Source: 2001 Census

<sup>2</sup> Source: Buckinghamshire's Local Transport Plan 3 (<http://www.transportforbucks.net/Strategy/Local-Transport-Plan/LTP3.aspx>)

<sup>3</sup> Source: Travel Bucks Strategy 2012

<sup>4</sup> Source: Buckinghamshire's Local Transport Plan 3 (<http://www.transportforbucks.net/Strategy/Local-Transport-Plan/LTP3.aspx>)

<sup>5</sup> Source: Buckinghamshire's Local Transport Plan 3 (<http://www.transportforbucks.net/Strategy/Local-Transport-Plan/LTP3.aspx>)

<sup>6</sup> Buckinghamshire Green Infrastructure Strategy (2009). The long term vision for Green Infrastructure in Buckinghamshire. Available at: <http://www.buckscc.gov.uk/services/environment/green-infrastructure/>

<sup>7</sup> Buckinghamshire Green Infrastructure Strategy, Available at: <http://www.buckscc.gov.uk/services/environment/green-infrastructure/>

<sup>8</sup> Buckinghamshire Green Infrastructure Strategy (2009): pg 5. Available at: <http://www.buckscc.gov.uk/services/environment/green-infrastructure/> (table on pgs 5 and 62 summarise GI accessibility, relating to areas over 2ha (not urban sites). Also further data on pg 64)

<sup>9</sup> IBID

<sup>10</sup> Buckinghamshire Green Infrastructure Strategy (2009): pgs 4-7. Available at: <http://www.buckscc.gov.uk/services/environment/green-infrastructure/>

<sup>11</sup> Buckinghamshire Green Infrastructure Strategy (2009): pg 5. Available at: <http://www.buckscc.gov.uk/services/environment/green-infrastructure/>

<sup>12</sup> Buckinghamshire Green Infrastructure Delivery Plan (2013)