

Chapter 9 Population and human health, including noise

Population and human health, including noise summary		
Key messages of policy		
<ul style="list-style-type: none"> Importance of locating new developments in existing built up areas with good links to the road and public transport network, rather than locate in low density areas which will require new infrastructure. Have regard to the influence of housing, transport and environment policies and allocations in the various local development documents, both within the county and beyond. Ensure adequate consideration is given to the public health value of schemes to increase walking and cycling. Ensure that tackling the barriers to behavioural change are addressed. Continue to address the barriers to work and training. Be mindful of the importance of allowing opportunities for social interaction within communities, reducing community severance where possible. Incorporate the latest thinking on achieving challenging road safety targets beyond 2010, in line with 'A Safer Way' consultation (2009) and Advice about Local Road Safety Strategies (2009). LTP policies and programmes need to include measures to reduce the impact of traffic noise and safeguard tranquil areas. Consider potential for links between Greenways and urban facilities to reduce car use for local journeys. 		
Environmental baseline		
Environmental description	Baseline condition	Future trend without LTP3
Population	Increased by 3.7% since 2001. Derbyshire is the second most populated authority in East Midlands	Population is predicted to rise a further 14.6% by 2026
Older population (60+)	Increased by 16.2% since 2001. Derbyshire has a higher percentage of older residents to England	Predicted to increase by 42% by 2026. Over 30% of population will be 60+ >E Midlands & England
Ethnicity	Minimal change in ethnicity. Proportion of non-white ethnic groups in 2008 is 3.3% of population	Previous change in ethnicity suggests that this will not significantly change during the Plan period.
Car ownership	Ownership levels in Derbyshire has increased and is greater than East Midlands and England.	Likelihood of increased vehicles in future, particularly as a result of increase in population.
Homes	Approx 318,000 homes in Derbyshire in 2004.	62,600 new houses to be built by 2026. Will increase demands on transport network.
Accessibility	Majority of population has good accessibility. Lesser populations in rural areas not so well served.	Commercial services in the main population centres are unlikely to change. Supported rural bus services may suffer.
Limiting long-term illness	Derbyshire has highest proportion in East Midlands, focused on North East of County	Correlates with deprivation. Increased population of elderly residents may increase this.
Healthy life expectancy	Life expectancy and healthy life expectancy similar to region and national. Healthy life expectancy is comparable too.	Greater proportion of elderly residents may mean more people in long healthy retirement but also more needing social care when in poor health.
Levels of physical exercise	Levels of physical exercise comparable with England. Correlates with high deprivation. However half of Derbyshire population are deemed inactive.	No data on trends but increase in population could lead to more non-active people.
Obesity - adults	Has trebled in UK since 2008. 28.7% of adults in Derbyshire are obese compared to 23.6% England	No data on trends but assume that any decrease in percentage could be offset by increased population
Obesity - children	18.3% of children in Yr 6 are classified obese. This appears comparable to Derbyshire Districts.	Obesity expected to worsen without action.
Road casualties	Casualties have reduced since 1995-98 average. Have not reduced as quickly as other areas of England.	Without measures to tackle casualties they could increase, although benefits would be gained from improved vehicle technology etc.
Community severance	Most urban areas and market towns likely to suffer some degree of severance due to traffic	Although traffic levels are likely to increase it is unlikely that this would increase areas affected.
Air quality	Two areas of concern. A619/A616 junction at Barlborough which is a declared AQMA but is currently showing levels below declaration level. Chesterfield town centre has been due to be declared but as yet this has not happened.	In the short-term air quality will remain an issue in the declared/ proposed AQMAs. In the longer term air quality is predicted to improve through vehicle technology etc. This may be tempered by increased traffic in some locations e.g. new housing areas/ increased tourism but not considered a significant issue in the longer term.
Noise	DEFRA has identified potential locations where noise from traffic may be a concern.	DCC estimations show that noise will not significantly increase with an increase in traffic.

Environmental issues and opportunities	
Description of issue	Implications/ opportunities for LTP3
Population growth/ housing provision/ transport usage.	LTP3 provides an opportunity to continue to work with LPAs to minimise any negative impact on the transport network.
Increasing elderly population	Spatially LTP3 could help to meet these needs in the more rural parts of Derbyshire where there is currently less public transport provision, although the greater numbers of elderly will live in the more urban areas of which differing needs could be helped through LTP3.
Limiting long term illness/ mental and physical disability	Derbyshire has the highest proportion of people with a limiting long term illness in the Region. Health issues such as dementia are predicted to rise by a third by 2020. Trend for a larger and older population and trend to ensure that people, with limiting long term illness, remain in their own homes. LTP3 could help to meet the growing needs and aspirations of elderly and disabled people and for people providing social care needs.
Physical exercise and obesity	LTP3 could continue to offer mitigation such as through provision and encouragement of walking and cycling and for those with a limiting disability.
Road casualties	LTP3 could continue to help tackle road casualties through engineering, education and enforcement.
Community severance	LTP3 could continue to provide measures to enhance connectivity across communities
Air quality	LTP3 could contribute to improving air quality in Air Quality Management Areas
Noise	LTP3 could contribute to reducing noise in DEFRA Noise Action Planning First Priority locations
Data gaps	
Description	Action
None	
Draft objectives	
SEA 13 Reduce the emission of air pollutants from transport in declared Air Quality Management Areas which relate to local traffic SEA 14 Influence the location of development to make efficient use of existing physical infrastructure and to help reduce the need to travel SEA 17 Improve access to key services and facilities using sustainable modes of transport SEA 18 Ensure the provision of transport and services considers the needs of elderly people, particularly in rural areas SEA 19 Improve road safety through targeted interventions, and make travel feel safer particularly by non car modes SEA 20 Improve community safety, reduce crime and the fear of crime SEA 21 Improve health by encouraging walking and cycling, and reducing health inequalities SEA 22 Minimise noise impacts SEA 23 Enhance opportunities for social contact within communities.	

9.1 Stage A1: Key messages of policy context analysis

- 9.1.1 Stage A1 of the SEA, see Annex 1, has identified the key relevant plans, programmes and environmental protection objectives relating to population and human health, including noise. The key messages of policy context are:-
- Importance of **locating new developments in existing built up areas with good links to the road and public transport network**, rather than locate in low density areas which will require new infrastructure.
 - Have regard to the influence of housing, transport and environment policies and allocations in the various **local development documents**, both within the county and beyond.
 - Ensure adequate consideration is given to the **public health value of schemes to increase walking and cycling**.
 - Ensure that tackling the barriers to **behavioural change** are addressed.
 - Continue to address the **barriers to work and training**.
 - Be mindful of the importance of allowing opportunities for social interaction within communities, **reducing community severance** where possible.
 - Incorporate the **latest thinking on achieving challenging road safety targets beyond 2010**, in line with 'A Safer Way' consultation (2009) and Advice about Local Road Safety Strategies (2009).
 - LTP policies and programmes need to include measures to **reduce the impact of traffic noise** and safeguard tranquil areas.
 - Consider potential for **links between Greenways and urban facilities** to reduce car use for local journeys.

9.2 Stage A2: Environmental baseline

Introduction

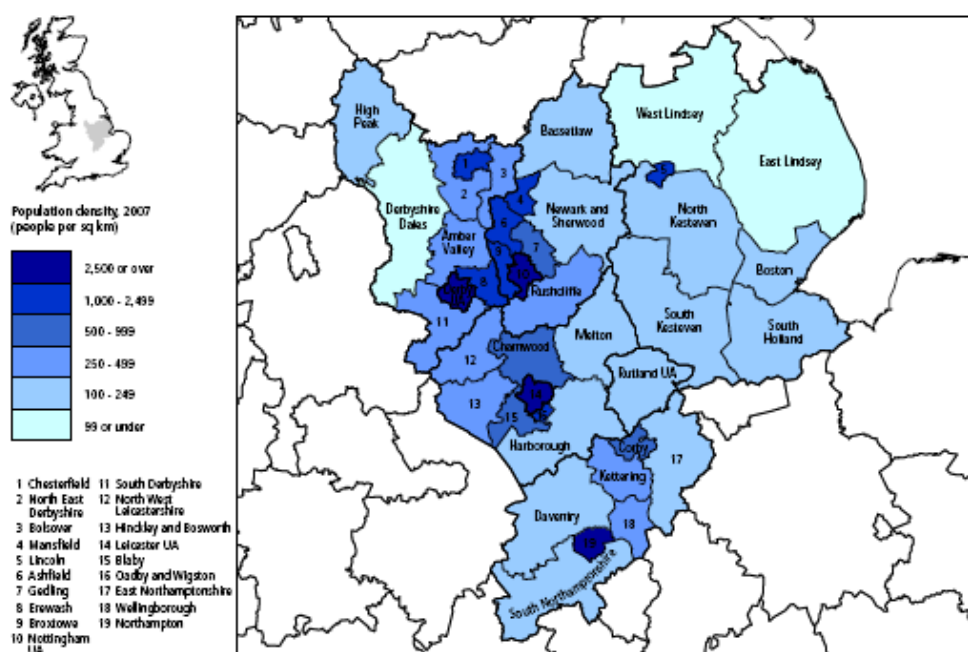
9.2.1 In this section to examine the environmental baseline we have considered the following issues. This section incorporates an assessment to fulfill the requirements of an Health Impact Assessment:-

- Derbyshire population trends
- Derbyshire health trends
- Road casualties
- Air quality
- Noise
- Crime

Derbyshire Population Trends

9.2.2 In 2008, it was estimated that 762,110 people live in Derbyshire, which is 17.1% of the East Midlands population¹. Although it is considered a relatively rural county, this makes Derbyshire the second most populated county in the region, after Nottinghamshire. Overall, Derbyshire's population density of 2.9 persons per hectare is similar to East Midlands but significantly less than England as a whole (3.8 persons per hectare)². Around two-thirds of the population reside in the eastern half of the County, as illustrated in Figure 9.1 opposite. The largest individual settlement is Chesterfield with an estimated population of 100,800 in 2008.

Figure 9.1 Population Density of East Midlands: By local or unitary authority 2007



Source: Office for National Statistics Regional Profile 2007

9.2.3 Derbyshire's population is growing. Since 2001 it has increased by 3.7%³ and is estimated to rise a further 14.6% to 873,500⁴ by 2026. Previous growth has generally been in line with that of England as a whole, but by 2026 it is expected to have grown at a faster rate. Figure 9.2 highlights the population projections to 2026 by District and Borough Council area.

¹ Mid 2008 Office for National Statistics Population Estimates – excluding Derby City

² 2001 Census

³ Comparison of 2001 Census with Mid 2008 Estimates by the Office for National Statistics

⁴ 2006 Office for National Statistics Population Projections

Age Composition

9.2.4 An important characteristic of population is age profile. This helps establish the different needs of population both by age and spatially. Table 9.1 highlights that Derbyshire has higher proportions of all older age ranges from 40+ when compared to East Midlands and England. Spatially this is highlighted in yellow in table 9.1. The spatial composition generally reflects the urban/ rural split i.e. older populations in rural areas and younger populations in the urban areas.

9.2.5 A key trend behind our population growth is a further change in the age structure of Derbyshire with a faster growth in population of older people (60+). Between 2001 and 2008, the number of older people in Derbyshire has increased by 16.2% to 187,510 people and is predicted to increase by a further 42% by 2026, compared to 36.2% in England. We have reproduced the age composition table above as projected to 2026⁵, see Table 9.2. This shows that the percentage of people over 60 will increase from 24.6% of Derbyshire's population to 30.5% which is significantly different to the East Midlands and England. Almost all Districts/ Boroughs show percentages above the national average for ages over 50. We have highlighted in yellow those areas above the Derbyshire average where particularly high percentages of older people are predicted. The change in age composition will lead to differences in dependency ratios between older and younger people.

Figure 9.2 Derbyshire Local Authority Population Projections 2006 to 2026

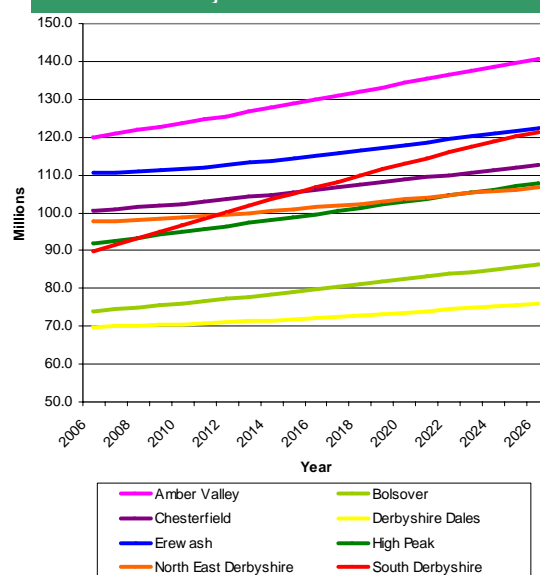


Table 9.1 2008 Estimates of Age Composition by Area⁶

District/ Borough	Age Profile (%)								
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+
Amber Valley	10.7	12.4	10.2	12.9	15.4	13.6	12.3	7.5	5.0
Bolsover	11.0	12.5	11.1	12.8	15.5	12.8	11.9	7.7	4.8
Chesterfield	10.6	12.2	11.3	12.9	15.4	13.0	11.5	7.8	5.3
Derbyshire Dales	9.8	11.8	7.8	10.6	15.9	15.0	14.0	9.0	5.9
Erewash	10.7	12.9	11.4	13.6	15.6	12.4	11.4	7.5	4.7
High Peak	11.0	12.8	10.3	12.6	16.8	13.5	11.3	6.9	4.8
NE Derbyshire	9.9	12.0	10.0	11.4	15.2	14.0	13.7	8.8	5.1
South Derbyshire	12.1	13.5	10.4	14.3	15.9	12.8	11.0	6.3	3.8
Derbyshire	10.7	12.5	10.4	12.7	15.7	13.3	12.1	7.6	4.9
East Midlands	11.2	12.7	13.1	12.8	14.9	12.4	11.0	7.2	4.6
England	11.6	12.4	13.6	13.6	14.8	12.0	10.3	7.1	4.6

Table 9.2 2026 Projections of Age Composition by Area

District/ Borough	Age Profile (%)								
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+
Amber Valley	10.7	10.9	9.6	13.0	12.1	13.2	12.8	10.2	7.4
Bolsover	11.0	11.2	9.7	12.9	12.1	13.3	13.1	9.7	7.0
Chesterfield	10.4	10.7	10.1	13.2	12.3	13.0	12.9	10.1	7.3
Derbyshire Dales	9.2	10.3	7.0	10.1	11.7	13.9	15.1	12.8	9.9
Erewash	10.9	10.6	10.0	14.2	12.7	12.7	12.1	9.5	7.3
High Peak	10.8	11.1	9.2	13.3	13.2	13.5	12.7	9.2	7.1
NE Derbyshire	9.8	10.6	8.9	11.6	11.5	12.8	14.2	11.9	8.6
South Derbyshire	11.4	12.2	9.8	13.8	13.3	13.4	11.9	8.6	5.4
Derbyshire	10.6	11.0	9.4	12.9	12.4	13.2	13.0	10.1	7.4
East Midlands	11.3	11.5	11.5	13.4	12.4	12.3	11.8	9.2	6.6
England	11.7	11.6	11.9	14.0	12.5	12.1	11.3	8.6	6.4

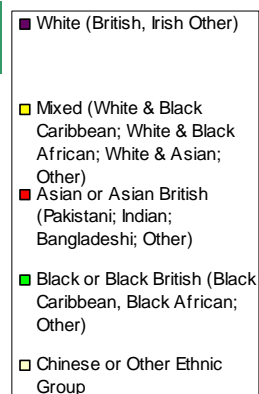
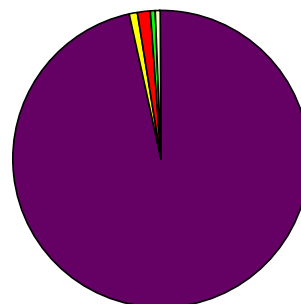
⁵ 2006 Office for National Statistics Population Projections

⁶ Mid 2008 Office for National Statistics Population Estimates

Ethnicity

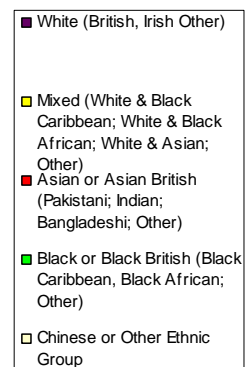
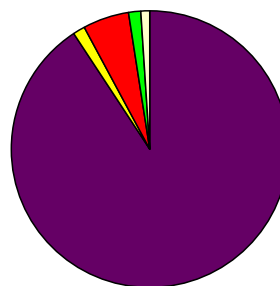
9.2.6 The ethnic composition of Derbyshire differs considerably from that of East Midlands and England⁷. In 2007, the county's white population makes up 96.7% of the total, a significantly higher proportion than East Midlands (90.0%) and England (88.2%), see Figures 9.3 and 9.4. Among areas of Derbyshire with the highest proportions of non-white ethnic groups are South Derbyshire, and to a lesser extent Erewash. Since 2001, the proportion of non-white ethnic group population in Derbyshire has increased from 1.5% to 3.3%⁸.

Figure 9.3 Derbyshire Ethnicity 2007



9.2.7 Different ethnic groups can have differences in the prevalence or incidence of important health problems such as diabetes and various types of cardiovascular disease⁹. The Derbyshire Health Report 2009 examined eligibility of free school meals as an indicator of deprivation, linking this to ethnic groups who are more likely to suffer poor health. This highlighted that mixed (14.6% of population) and white (11.3%) ethnic groups are more likely to be deprived. Chinese (3.3%) have the least children eligible. The numbers eligible are well below the national average.

Figure 9.4 East Midlands Ethnicity 2007



Transport Mode Usage

9.2.8 Table 9.3 shows the usual mode of travel used by Derbyshire people to access work. This data is based upon the 2001 census, which is now likely to be out of date; therefore it should be used to illustrate spatial differences rather than actual usage. The data suggests more home working in rural areas. Bus usage is more prevalent in the North East of the County centred around Chesterfield, and in Erewash linking into Derby/ Nottingham. Train usage is particularly used for accessing Greater Manchester from High Peak.

Table 9.3 2001 Mode of Travel to Work

District/ Borough	Home work	Car	Motorcycle	Bus	Train	Taxi	Cycle	Foot	Other
Amber Valley	8.7	71.7	1.4	4.7	0.8	0.3	1.5	10.5	0.3
Bolsover	7.8	72.6	1.1	5.7	0.8	0.2	1.3	9.9	0.3
Chesterfield	7.4	67.9	1.1	9.0	0.8	0.7	1.5	11.3	0.3
Derbyshire Dales	14.0	67.5	0.6	2.9	1.1	0.2	1.0	12.1	0.6
Erewash	7.5	67.7	1.6	7.1	1.3	0.3	4.4	9.8	0.3
High Peak	10.2	66.0	0.8	3.2	4.5	0.5	1.2	13.1	0.4
NE Derbyshire	9.2	72.5	1.0	7.6	1.0	0.2	0.8	7.3	0.4
South Derbyshire	9.2	75.6	1.4	3.4	0.6	0.3	1.9	7.3	0.3
Derbyshire	9.1	70.1	1.1	5.6	1.4	0.4	1.8	10.1	0.4
East Midlands	9.0	67.3	1.0	7.0	1.0	0.4	3.3	10.5	0.4
England	9.2	61.0	1.1	7.5	7.4	0.5	2.8	10.0	0.5

⁷ Mid 2007 Office for National Statistics Estimated Resident Population by Ethnic Groups

⁸ Comparison of 2001 Census with Mid 2007 ONS Ethnic Group Populations

⁹ Derbyshire Joint Strategic Needs Assessment 2008

9.2.9 Use of cars in Derbyshire is above the average for the region and England. We are also aware that the many visitors that come to Derbyshire use a significantly higher proportion of cars (85% of visitors used a car to travel to the Peak District in 2005¹⁰). Table 9.4 shows car ownership levels in 2001¹¹. The 2009 Derbyshire Citizens Panel survey shows that this has most likely significantly changed with only 7.6% people saying their household has no car. One-car ownership remains constant with an increase in 2 and 3+ ownership.

9.2.10 In addition to the census the Authority collects data through its Citizens Panel to investigate usage of more sustainable modes of travel as shown in Table 9.5. These figures generally show that people will generally use a range of modes throughout the week for different purposes.

Table 9.4 2001 Car ownership

District/ Borough	Car Ownership			
	0 Cars	1 Car	2 Car	3+ Car
Amber Valley	22.5	44.2	26.7	6.6
Bolsover	27.5	44.7	22.7	5.1
Chesterfield	30.4	44.8	20.5	4.3
Derbyshire Dales	16.8	43.1	31.1	9.0
Erewash	24.3	46.4	24.0	5.3
High Peak	21.7	44.6	27.2	6.5
NE Derbyshire	22.4	42.8	27.4	7.4
South Derbyshire	16.3	42.8	32.6	8.3
Derbyshire	23.0	44.3	26.2	6.4
East Midlands	24.3	44.4	25.2	6.1
England	26.8	43.7	23.6	5.9

Table 9.5 2009 Derbyshire use of more sustainable transport modes

Mode	Frequency of use (%)							
	Everyday	2-6 times a week	Once a week	Once a month	2-10 times a year	Once a year	Less than once a year	Never use
Bus	1.7	12.4	9.0	10.6	19.7	8.6	9.8	28.2
Train	0.4	1.6	2.1	7.0	28.4	15.4	19.6	25.5
Cycle	0.7	4.7	4.2	4.8	10.5	3.3	5.5	66.4
Walk (+1 mile)	24.3	34.9	19.3	8.3	5.2	0.5	1.7	5.9
Taxi	0.4	1.9	3.1	6.6	33.1	16.2	13.5	25.2

9.2.11 The 2009 Citizens Panel surveyed what purpose people used these modes for, see Table 9.6. This clearly shows that more sustainable modes are used for leisure and social trips. Buses are used for both leisure and shopping. Bus, train, cycle and taxi show increased percentages for use to work, which may suggest changes in mode of travel since the 2001 census.

Table 9.6 2009 Derbyshire journey purpose by more sustainable transport modes

Mode	Journey Purpose (%)					
	Work	Shopping	Health Care	Education	Leisure/ Social	Other
Bus	9.7	43.1	5.6	0.7	36.5	4.4
Train	14.7	13.9	1.8	0.8	66.9	1.9
Cycle	5.4	2.8	0.5	0.2	87.5	3.7
Walk (+1 mile)	10.5	15.4	1.7	0.9	67.2	4.3
Taxi	4.4	3.6	5.5	0.3	81.5	4.6

Homes

9.2.12 In 2004 there were 317,976 households in Derbyshire¹². Housing projections exist for England and the East Midlands. Between 2006 and 2026 housing is expected to grow at a faster rate in the East Midlands than the rest of the Country, with 30.5% more homes¹³ being built. Household composition will change significantly as lone households are predicted to increase by 50% between 2006 and 2026 nationally, reducing average household composition from 2.32 people to 2.16. Spatially, growth is most likely to occur where planned new housing is proposed within Housing Market Areas (HMAs). Four HMAs cover Derbyshire¹⁴. Figures in brackets show the new housing planned for the areas between 2006 and 2026.

- **Peak, Dales and Park** – includes Derbyshire Dales (4,000), High Peak (6,000); Peak District National Park covers parts of each District.
- **Northern** – includes Chesterfield (7,600), North East Derbyshire (7,600) and Bolsover (8,000)
- **Derby** – includes Amber Valley (10,200) and South Derbyshire (12,000)
- **Nottingham Core** – includes Erewash (7,200)

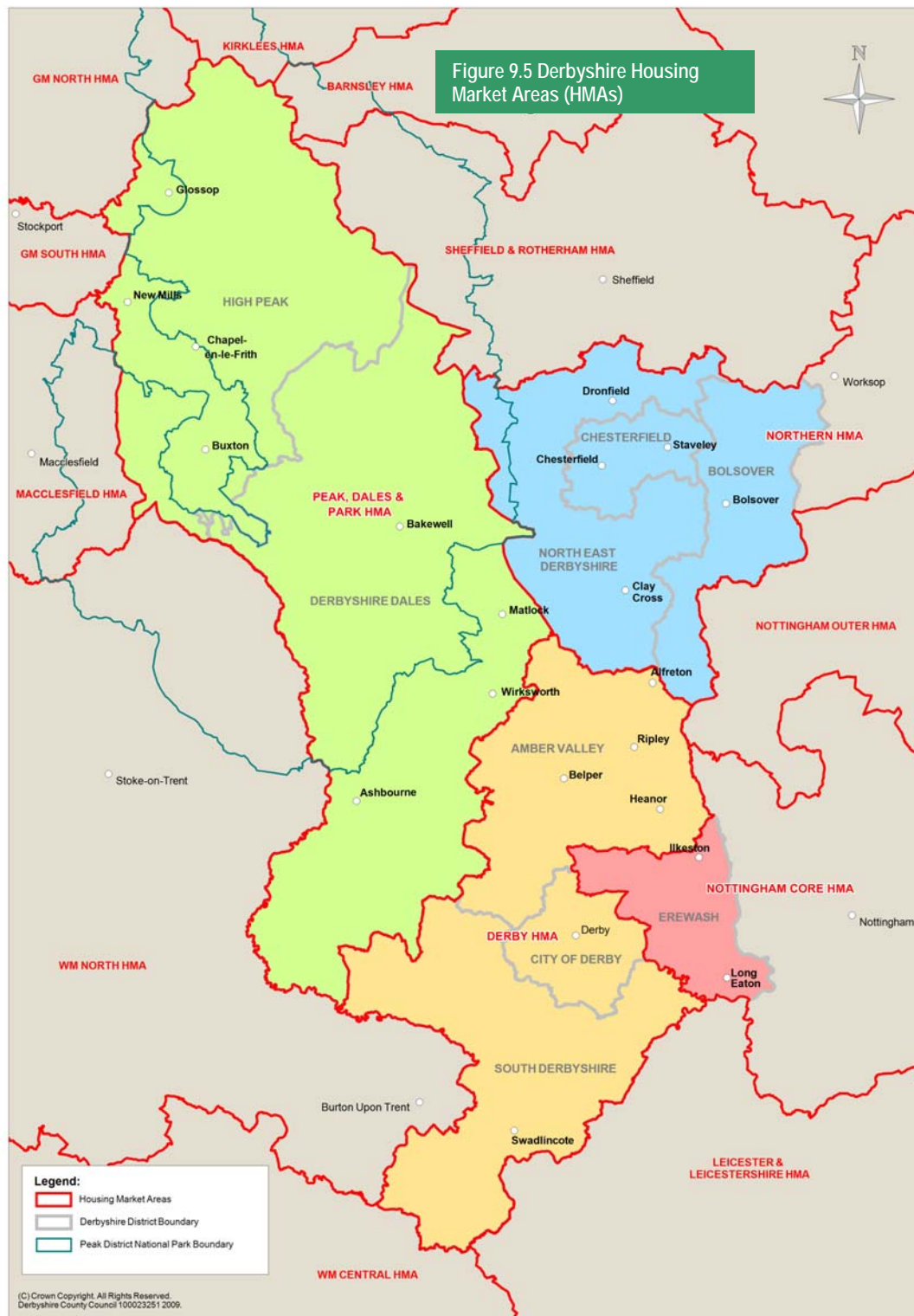
¹⁰ Peak District National Park Visitor Survey 2005

¹¹ 2001 Census

¹² DCHLG mid-year household estimates, ONS

¹³ 2009 CLG Household Projections to 2031

¹⁴ East Midlands Regional Plan 2009



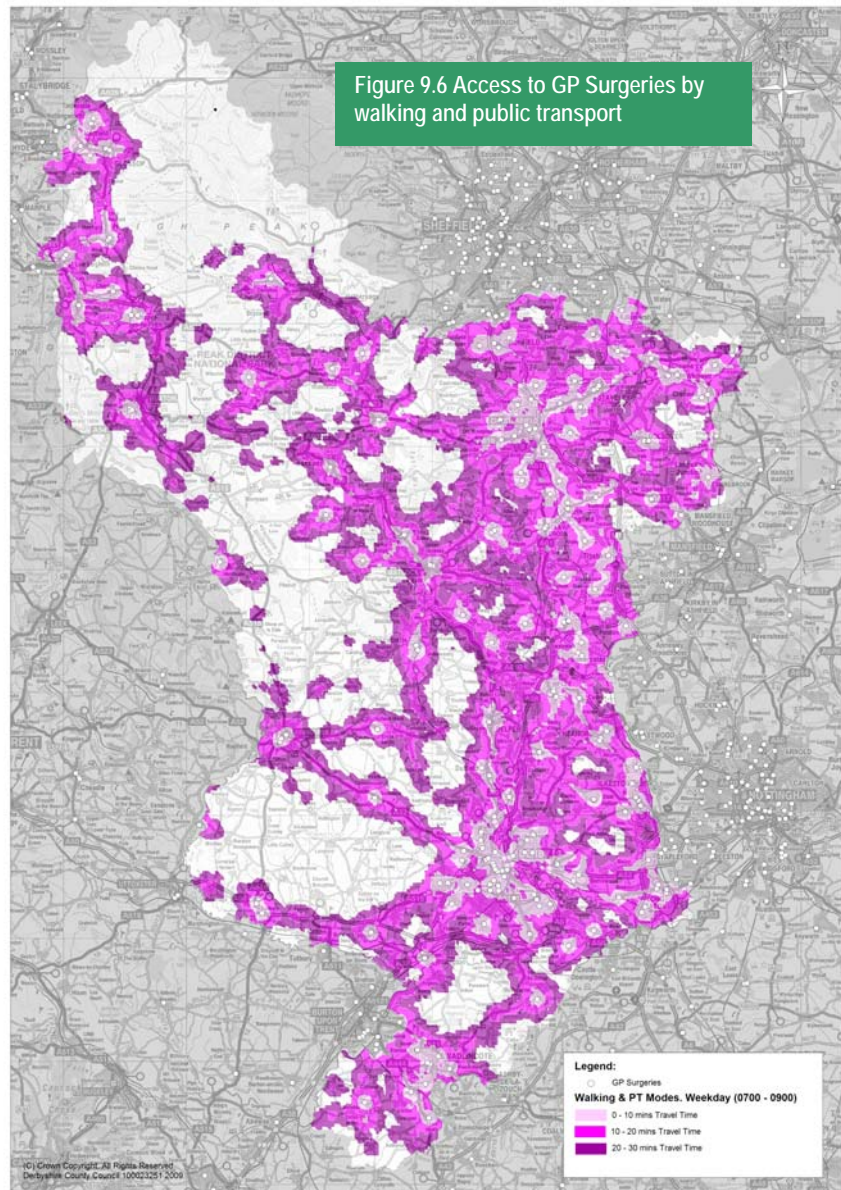
9.2.13 The impact of new housing is being examined separately by the relevant local planning authorities. The sites for housing are yet to be selected so at this stage it is difficult to estimate where the effect will be e.g. the Derby HMA is currently considering 60 sites. It is clear though that there will be additional traffic generated by population growth and new housing. 62,600 houses are to be built from 2006. Using the car ownership data as reported above¹⁵ as a guideline, it is likely that a minimum of 70,000 additional vehicles will be owned in Derbyshire by 2026. Localised issues of road casualties, community severance etc may become more prevalent in areas of new housing.

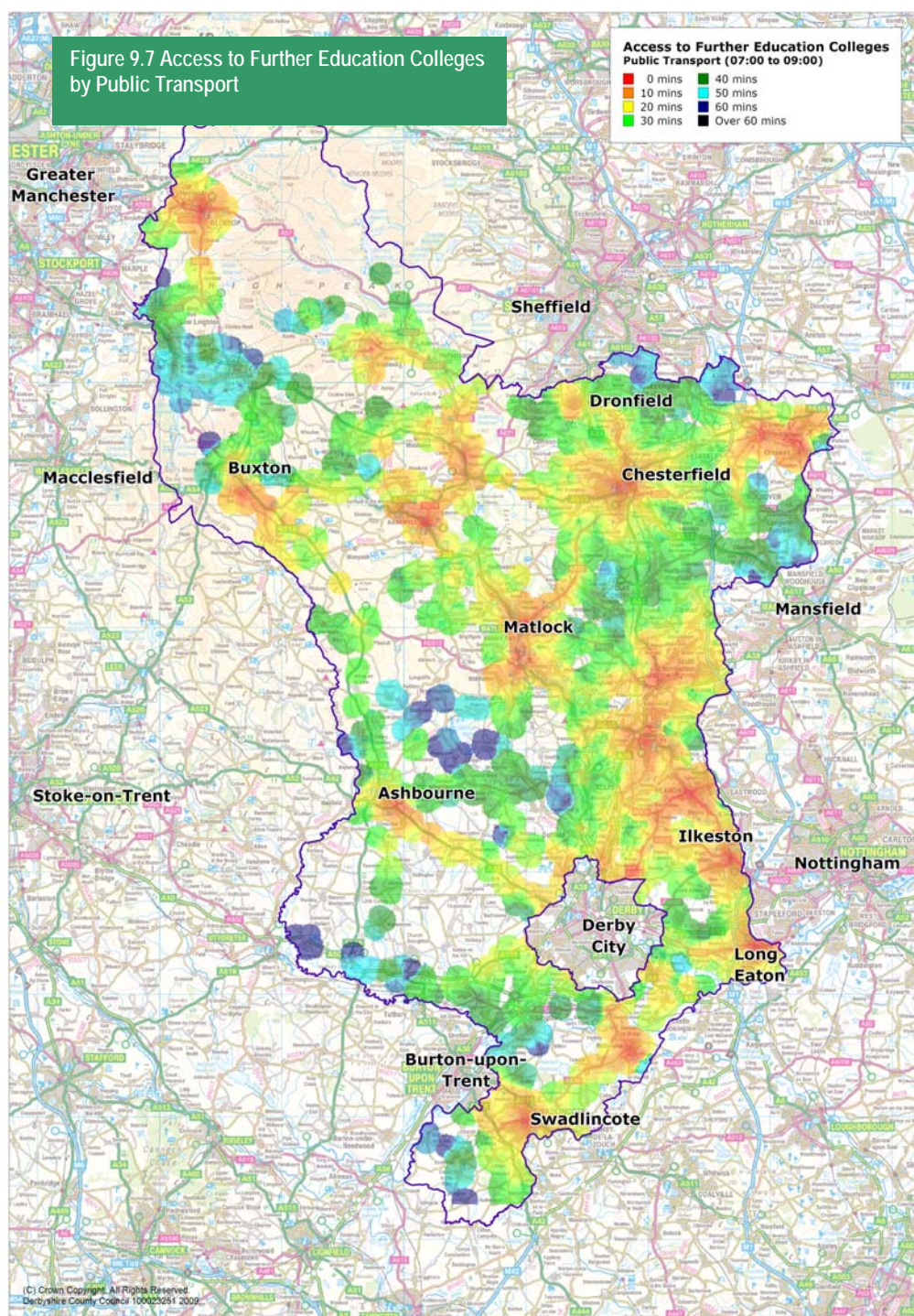
¹⁵ 2001 Census

Access to services

9.2.14 The Derbyshire Accessibility Strategy has been developed to ensure that everyone in Derbyshire has the opportunity to access key services such as healthcare, education, employment, food shopping, leisure, and culture, particularly if they do not have access to a car. Access to healthcare was a key priority for LTP2. In 2008 over 95% of Derbyshire residents were within an hours public transport journey of a hospital. Local healthcare accessibility by walking and public transport has been modelled and is shown in Figure 9.6. This shows that the sparsely populated rural area to the west, where there are fewer bus services, have least access to local healthcare.

9.2.15 Access to employment is more difficult to model because of the wide-range of destinations. Accessibility to employment in Derbyshire has been focussed on the Markham Vale development which is located in the more deprived areas in north east Derbyshire. The target to increase public transport access for local residents was achieved in 2009/10. Related to employment is access to further education. Figure 9.7 shows access to further education by public transport in the County.





Summary of Derbyshire population trends

9.2.16 The analysis of population trends has highlighted a number of issues to be taken forward in the following assessments and for further consideration in development of LTP3. In summary they are:-

- **Derbyshire's population** - will increase by 2026, but at a faster rate than the average for England. Growth in population will contribute to further demands on the transport network.
- **Age composition** – There will be a faster growth in an elderly population in Derbyshire and it predicted to increase by 42% by 2026. Derbyshire will have a greater proportion of older residents than the region and England.
- **Transport mode usage** – usage of cars for journey to work was higher than the average for the region and England. Usage of more sustainable modes less than regional and national average. Derbyshire is host to many visitors of which 85% travel by car.
- **Housing** – 62,600 new houses to be built. Where this happens spatially will be where population growth and the associated issues will be most prevalent.

- **Access to services** – accessibility is generally good to most services. Lower level of public transport provision in the western rural areas can lead to lower access to certain services e.g. GP surgeries.

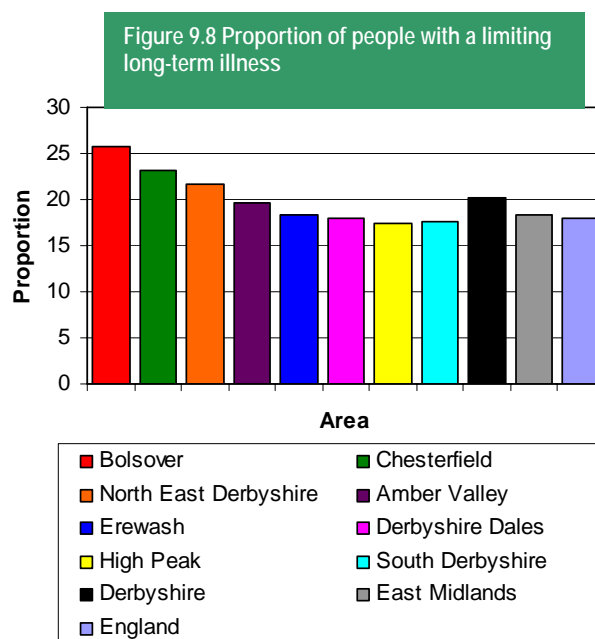
9.2.17 There has been little change in the ethnicity of the County. Although it is likely that the proportion of non-white ethnic groups will increase this is not likely to be significant and therefore unlikely that transport needs will be significantly different. Therefore we are scoping out ethnicity as an issue.

Health of Derbyshire Residents

9.2.18 Overall, people in Derbyshire enjoy good health and a good sense of well-being¹⁶. This is generally similar to the England average¹⁷. In setting out the following patterns of health and ill-health we concentrate on those that have a particular relevance to transport. Much of this information is taken from the Derbyshire Joint Strategic Needs Assessment 2008 (DJSNA) which sets out health and well-being needs of Derbyshire people. We acknowledge that transport will play a part in numerous other health inequalities but that evidence may not be available to specifically relate it to transport.

Limiting long term illness

9.2.19 The DJSNA highlights self-reported illness as a useful overview of the proportion of people affected by illness. Although a few years old the data is found to correlate with more objective measures such as mortality and reflect Derbyshire's residents' perceptions of health. Overall, Derbyshire has the highest proportion of people reporting a limiting long-term illness in the East Midlands. Figure 9.8 shows that the north east of the County has high proportions of long-term illness, which the DJSNA acknowledges is similar to high mortality rates in those areas. In terms of transport provision, this highlights where needs of population may be greater e.g. facilities for disabled people or reliance on public transport.



9.2.20 The DJSNA examines levels of disability in Derbyshire, but acknowledges that there is no single source that is a measured trend of disability. Data provided shows that in 2006/07 3,074 Derbyshire people with a physical disability required social care. 2,403 physically disabled people were helped to live at home. The DJSNA also highlights people with learning disabilities or mental health problems that were receiving a social care service. The DJSNA also highlights that dementia is likely to increase by a third by 2020. In future demand is likely to increase as the trend will be to keep people in their own homes and supported by the community rather than being in institutional care.

¹⁶ Draft Derbyshire Sustainable Community Strategy 2009-2014

¹⁷ Health Profile Derbyshire 2009

Healthy life expectancy

- 9.2.21 The DJSNA highlights that there is a clear relationship between deprivation and life expectancy. Thus lower life expectancy and higher numbers of years in ill-health tends to be clustered within districts of high levels of multiple deprivation. Table 9.7 shows healthy life expectancy for Derbyshire. In terms of transport this highlights three particular aspects. The first is the role that transport can have in helping to reduce deprivation e.g. by helping people to access jobs; the second is the transport needs of a growing elderly population with many years in healthy life; and thirdly the needs of those who are in poor health, including those who cannot leave their homes or are in care homes.

Table 9.7 Healthy life expectancy (years) at 65¹⁸

Area	Males			Females		
	Life expectancy at 65	Estimated healthy life expectancy	Estimated years in poor health	Life expectancy at 65	Estimated healthy life expectancy	Estimated years in poor health
Derbyshire Dales	17.1	13.7	3.3	19.6	15.1	4.5
High Peak	16.0	12.5	3.5	19.3	14.4	4.9
Erewash	15.8	12.2	3.5	18.7	13.8	5.0
South Derbyshire	15.9	12.1	3.8	18.6	13.9	4.7
North East Derbyshire	15.9	11.7	4.2	18.7	13.1	5.7
Amber Valley	15.6	11.5	4.1	19.1	13.7	5.5
Chesterfield	15.5	11.1	4.4	18.6	12.9	5.7
Bolsover	15.2	10.2	4.9	18.5	12.2	6.2
East Midlands	16.1	12.4	3.7	19.1	14.3	4.8
England	16.1	12.5	3.6	19.2	14.5	4.7

Transport needs of older people

- 9.2.22 Older people (over 60) currently have access to free travel on buses and reduced fares on local trains under the Concessionary Fares Scheme which was extended in April 2008 to allow bus travel throughout England¹⁹. Derbyshire residents enjoyed free travel prior to the new scheme, but the new scheme now provides free travel for all residents wishing to visit Derbyshire and Derbyshire residents wishing to travel outside the County which in future could have implications for areas subject to tourist pressures. It is clear that an older population has a greater dependence on public transport than people of working age. For example the National Travel Survey 2002 shows that only 21% of households where the head of that household was aged 55-64 did not have access to a car; this increases to 51% of households for people 65 and over. With a growing older population, the number of older people depending on public transport is likely to increase. This may be more difficult in rural areas e.g. Derbyshire Dales where older populations are growing at a faster rate but are less served by public transport. Longer-term the prevalence of motorised wheelchairs may be an issue.

Social care needs

- 9.2.23 The DJSNA highlights that a rise in elderly population will have a clear ramification for social care delivery. Transport needs will be part of that social care in getting the elderly around and for carers to support them. The DJSNA highlights that over 53,000 people in Derbyshire currently have some social care needs, as represented spatially in the DJSNA as reproduced in Table 9.8 below. During 2007/08 20,000 older people received a community based service. It is clear that an increased population of elderly will be replicated in the number requiring social care in future.

Table 9.8 Derbyshire Social Care Need 2008

District/ Borough	Level of Social Care Need					
	None	Low	Moderate	High	Very high, physical	Very high, cognitive
Amber Valley	12,960	2,130	2,320	1,710	1,760	550
Bolsover	7,060	1,200	1,940	1,470	1,640	340
Chesterfield	10,430	1,690	2,290	1,720	1,860	460
Derbyshire Dales	10,020	1,520	1,190	850	770	380
Erewash	11,870	2,040	1,890	1,370	1,370	480
High Peak	10,020	1,690	1,410	1,010	960	400
NE Derbyshire	12,280	1,910	2,140	1,580	1,660	480
South Derbyshire	8,670	1,370	1,370	1,000	1,020	330
Total	83,310	13,550	14,550	10,710	11,040	3,420

¹⁸ Table reproduced from Derbyshire Joint Strategic Needs Assessment

¹⁹ <http://www.dft.gov.uk/pgr/regional/buses/concessionary/>

Lifestyle factors

- 9.2.24 As well as the socio-economic influences on health, there are lifestyle and behaviour factors. Obesity and lack of physical exercise particularly relate to transport.

Physical exercise

- 9.2.25 The Chief Medical Officer's report 'At least five times a week'²⁰ made a clear link between physical inactivity and ill health. Physical activity can prevent and manage over 20 conditions and diseases including coronary heart disease, stroke, diabetes and cancer. It also promotes well-being and helps people manage their weight²¹. 2008 health profiles show that mortality rates in Derbyshire for heart disease and cancer have reduced and are on a par with the rest of England. The 2009 Derbyshire Citizens Panel survey concludes that 12.4% of Derbyshire residents' exercise at least 5 times a week and 35.3% at least three times. Sport England's 2007 Active People Survey found that only 20.9% of Derbyshire people exercised at least three times, although this was comparable to other areas in England.

Table 9.9 Proportion of people who are inactive by area

District/ Borough	Inactivity %	Population estimated to be inactive
Amber Valley	51	58,747
Bolsover	55	38,454
Chesterfield	56	54,367
Derbyshire Dales	46	33,428
Erewash	50	54,495
High Peak	47	43,284
NE Derbyshire	48	47,389
South Derbyshire	51	42,925

- 9.2.26 The DJSNA concludes that around 51% of adults are inactive. The highest proportion of people who are inactive are within the lowest income bracket – showing a clear association with deprivation. Spatially, inactivity is shown in Table 9.9 which shows Chesterfield and Bolsover having above average levels of inactivity. Numerically, Amber Valley is estimated in having the most inactive people.

Obesity

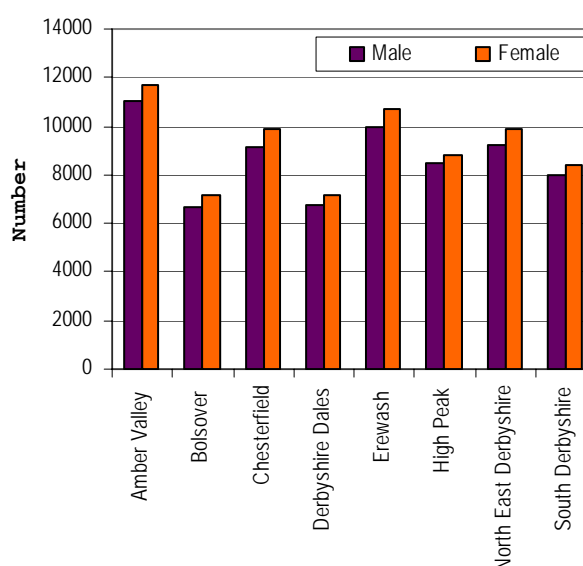
- 9.2.27 Linked to lack of physical activity are increasing levels of obesity. Since 1980 the prevalence of obesity has trebled in the UK²² (based on 2003 data). It is estimated that 28.7% Derbyshire adults are obese, compared to 23.6% in England²³. Figure 9.9 shows the number of overweight adults within the County and Figure 9.10 shows the spatial distribution of these between. This shows that obesity is more prevalent for females. Spatially, obesity is more prevalent in Amber Valley, Erewash, North East Derbyshire and Chesterfield.

Figure 9.9 Estimated Obesity Levels in Derbyshire

BMI Male 16+ yrs			BMI Female 16+ yrs	
BMI	Number		BMI	Number
40+	3,310	Morbidly obese >40	40+	10,253
30-39	81,280	Obese >30	30-39	92,276
25-29	156,675	Overweight 25-29	25-29	121,896
<25	126,517	Normal <25	<25	155,312

Source: Derby & Derbyshire Strategic Framework: Obesity 2007-2010

Figure 9.10 Estimate of obese people by Derbyshire local authority



Source: Derby & Derbyshire Strategic Framework: Obesity 2007-2010

²⁰ Department for Health (2004) At least five times a week: evidence on the impact of physical activity and its relationship to health

²¹ National Institute for Health and Clinical Excellence: Public Health Intervention Guidance No 2 (2006)

²² Derby & Derbyshire Strategic Framework: Obesity 2007-10

²³ www.healthprofiles.info H Derbyshire Health Profile 2009

- 9.2.28 Between 1995 and 2004, obesity levels in England in two to ten year olds rose from 9.9% to 14.3%. In England in 2008/09 18.3% of Year 6 children were classified as obese²⁴. Spatially this data is examined in Table 9.9. This data shows that South Derbyshire, Amber Valley and Bolsover have above average proportions of overweight or obese children.

Table 9.9 Proportion of Child Obesity by Area

District/ Borough	Reception Class		Year 6	
	Obese %	Overweight %	Obese %	Overweight %
Amber Valley	9.8	16.2	15.3	14.4
Bolsover	8.6	13.4	18.7	14.0
Chesterfield	9.1	13.2	18.2	15.4
Derbyshire Dales	7.4	13.2	17.4	14.7
Erewash	7.3	11.3	18.3	14.0
High Peak	8.7	16.9	16.4	14.2
NE Derbyshire	7.8	15.1	17.5	14.4
South Derbyshire	10.3	14.8	20.7	14.6
East Midlands	9.1	13.0	17.8	14.4
England	9.6	13.2	18.3	14.3

Health of Derbyshire residents' summary

- 9.2.29 Derbyshire has high proportions of elderly people and people with limiting long-term illnesses. The elderly population is expected to grow as are many long-term illnesses such as dementia. This will mean greater demands for future transport provision such as public transport. Many people will be encouraged to remain and be cared for within their homes which will increase transport needs of carers and other social care.
- 9.2.30 A growing elderly population is also likely to remain in good health for many years. Reliance on public transport increases with age which will no doubt mean greater demands on public transport in future.
- 9.2.31 Around half the County's adult population is inactive, which is a contributory factor in 28.7% of Derbyshire adults being classified as obese. Around a fifth of children are classified as obese. Obesity in adults and children is expected to increase. Transport has a role in providing for and encouraging physical fitness to reduce obesity.

Road Casualties

- 9.2.32 During 2008, 425 people were killed or seriously injured on Derbyshire's roads²⁵. 34 of these casualties were children. In addition there were 2,797 slight casualties recorded on Derbyshire's roads in 2008. Since the 1995-98 average killed or seriously injured casualties have reduced significantly - by 40%. Child casualties have reduced at a faster rate – a 59% reduction since 1995-98. This is against an increase in traffic.
- 9.2.33 The Derbyshire Casualty Report 2008 analysed the casualty data in more detail. This found that good progress has been made in tackling child casualties, pedestrians. Derbyshire, including Derby City, has seen a greater reduction in children, child pedestrians and cyclists, older people, goods vehicle users and pedestrians being killed or seriously injured. However, evidence shows that current priorities for casualty reduction are motorcyclists, young car drivers, and problem routes including rural roads and collisions that happen within the hours of darkness. In the last few years pedal cyclist casualties have increased. Alcohol related collisions were the only casualty group that had increased over the 1995-98 baseline average, but the numbers were small (30 collisions). Data for 2009 shows that casualty rates within Derbyshire have increased. It is clear that there is still much to do to reduce casualties further.
- 9.2.34 Should casualty levels continue to reduce at current trends, it is hoped that by 2026 road safety will be much less of an issue than current.

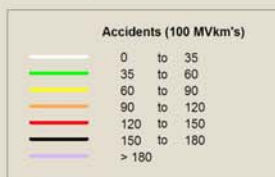
²⁴ 2008/09 National Child Measurement Programme

²⁵ DCC Road Casualty Data from Derbyshire Constabulary Stats 19 records

Figure 9.11 3-Year Personal Injury Accidents per 100 Million Vehicle KMs (01/05/2006-30/04/2009)



**Accident Occurrence Thresholds
Accidents per 100 Million Vehicle kms**



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Derbyshire County Council 100023251 2009.

Community Severance

- 9.2.35 Being able to get around our neighbourhoods helps people access local services, interact and develop integrated communities. The DfT undertook a research project into community severance in 2005²⁶ which highlighted three potential barriers:-
- Physical barriers: caused by transport infrastructure creating a physical barrier
 - Psychological barriers: caused by road safety fears, acceptability of mitigation measures and limited travel horizons
 - Accessibility barriers: barriers to people's ability to 'self-mitigate' the physical/ psychological barriers in order to reach key services
- 9.2.36 Many of these relate to localised issues rather than a strategic overview. At a strategic level most communities would probably consider that there was at least an element of community severance caused by traffic travelling through their community. Studies in the USA showed how the number and frequency of social contact reduced as traffic levels increased²⁷. The Design Manual for Roads and Bridges (DMRB) Volume 11 describes the minimum level of traffic a day (8,000 vehicles) where a further reduction would make a negligible difference to severance i.e. traffic levels below this could be considered as having limited impact on severance. As a rural county, no doubt smaller communities with lower levels of traffic would still consider themselves vulnerable to severance.
- 9.2.37 To try and take account of a rural perspective in severance and traffic flows we have in Figure 9.12 mapped traffic levels on the main road network. This shows that all market towns in Derbyshire experience at least one road in their community with more than 5,000 vehicles a day. Smaller communities and other urban local centres in the east of the County are also likely to be subject to a road(s) hosting over 5,000 vehicles a day. The figure also highlights that many of the rural areas to the west and south of Derbyshire are less likely to be vulnerable to severance. We have projected this map forward to 2026 using high traffic growth forecasts. These show that the general pattern would remain, but that some rural areas, particularly in High Peak would become more vulnerable, although moderately affected.



²⁶ Part I: Views of practitioners and communities

²⁷ Appleyard/ Lintell The Environmental Quality of City Streets 1972

- 9.2.38 The DfT report also highlights four groups of people that are more likely to be vulnerable to community severance:-
- People without access to a car
 - People with restricted mobility, wheelchair users, frail older people and parents/ carers pushing buggies/ prams
 - School children
 - People who are not involved in usual methods of consultation i.e. hard to reach groups

9.2.39 In Table 9.4 above we have highlighted car ownership percentages across the County. In Figure 9.13 we represent this data spatially to highlight areas that may be more vulnerable to community severance. Generally this relates to the eastern areas of denser population and the market towns in the High Peak.

9.2.40 In paragraphs following 9.2.4 above, we have also investigated the ageing population of Derbyshire. Spatially we looked at areas where there was a higher percentage of elderly population. To highlight areas where most people are affected we have reproduced this data with populations of people over 60 in Table 9.10.

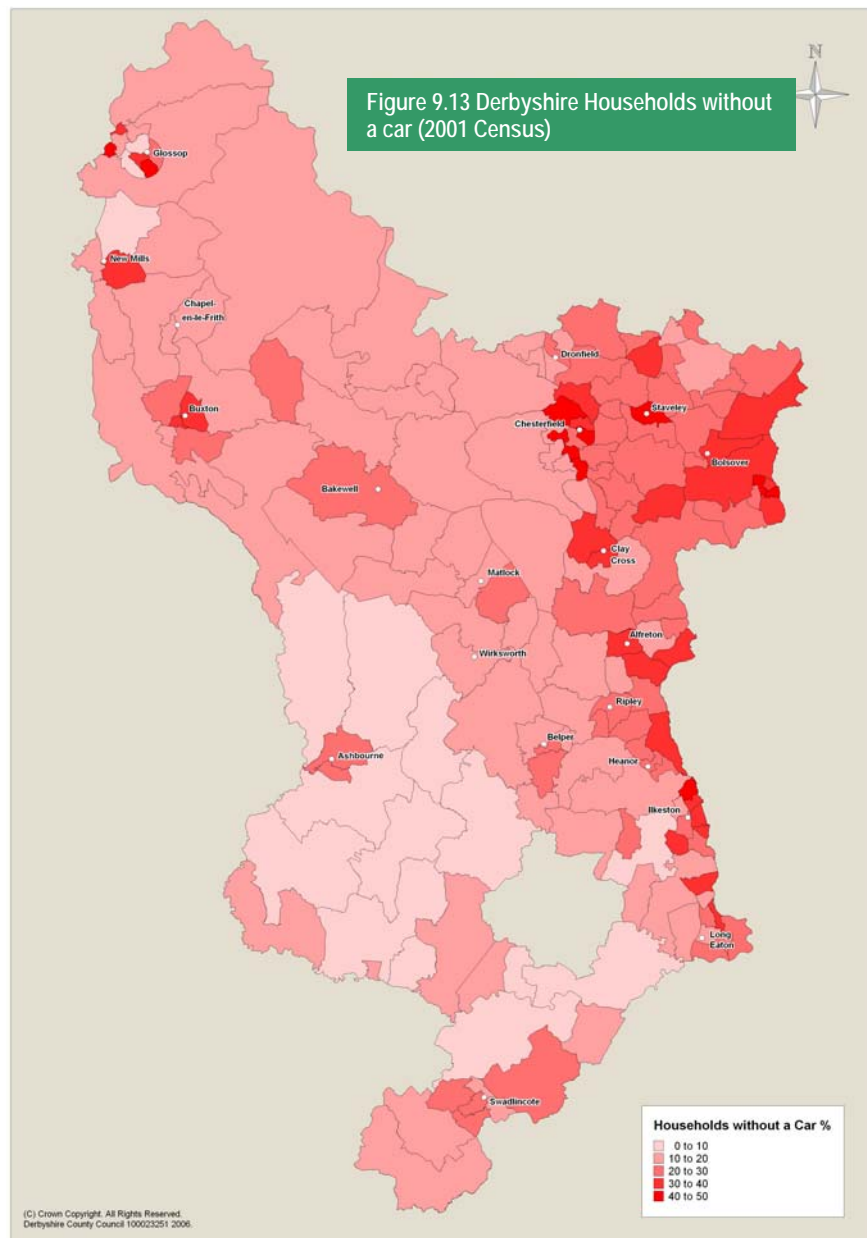


Table 9.10 Mid 2008 Estimates of older populations by area

District/ Borough	Older Age Composition							Total Population 60+	Density Older Pop/Ha
	60-64	65-69	70-74	75-79	80-84	85-89	90+		
Amber Valley	10,415	7,510	5,935	4,965	3,665	2,545	1,210	36,245	1.37
Bolsover	3,785	2,750	2,305	1,930	1,420	820	370	13,380	0.83
Chesterfield	6,655	5,040	4,235	3,630	2,925	1,815	710	25,010	3.79
Derbyshire Dales	4,100	2,900	2,475	1,980	1,555	990	495	14,495	0.18
Erewash	8,235	5,900	5,120	4,120	3,005	1,890	890	29,160	2.65
High Peak	5,685	4,100	3,260	2,705	1,960	1,400	750	19,860	0.37
NE Derbyshire	7,660	5,500	4,715	3,730	2,650	1,670	590	26,515	0.96
South Derbyshire	5,560	3,895	3,060	2,410	1,760	1,020	465	18,170	0.54

9.2.41 As part of our equalities impact assessment we are considering issues relating to groups of people who are considered hard-to-reach. These are usually related to ethnicity, faith, mental or physical disabilities or people with social care needs. We have already investigated disability and people with social care needs. Table 9.11 sets out the distribution of faiths across the County.

Table 9.11 Faith distribution in Derbyshire (2001 Census)

	Christian	Buddhist	Hindu	Jewish	Muslim	Sikh	Other	No Religion	Not stated
Amber Valley	75.6	0.1	0.1	0.0	0.1	0.1	0.2	16.1	7.7
Bolsover	78.1	0.1	0.1	0.0	0.1	0.1	0.1	12.6	8.8
Chesterfield	77.9	0.1	0.1	0.0	0.4	0.1	0.2	13.3	7.9
Derbyshire Dales	79.4	0.2	0.0	0.1	0.2	0.0	0.2	12.9	7.0
Erewash	72.3	0.1	0.3	0.0	0.2	0.2	0.2	18.9	7.7
High Peak	76.5	0.2	0.1	0.0	0.2	0.0	0.3	15.8	6.8
NE Derbyshire	80.0	0.1	0.1	0.1	0.1	0.1	0.2	12.2	7.3
South Derbyshire	78.2	0.1	0.2	0.0	0.2	1.3	0.2	13.3	6.5
Derbyshire	77.0	0.1	0.1	0.0	0.2	0.2	0.2	14.6	7.5
England	71.7	0.3	1.1	0.5	3.1	0.7	0.3	14.6	7.7

Community severance summary

- 9.2.42 It is likely that many communities suffer community severance to some degree by virtue of traffic travelling through their communities. Severance is likely to be more prevalent in the eastern, more urban areas which are host to larger levels of traffic, larger numbers of people with limiting long term, larger numbers of elderly people and lower levels of car ownership.
- 9.2.43 Within the more rural areas, although severance appears a lesser issue, for those without access to a car, are elderly or have a limiting long-term illness it is likely that the effects of this would be more acute.
- 9.2.44 At this stage we are not scoping out urban or rural issues in relation to community severance.

Air Quality

- 9.2.45 The quality of our air in the United Kingdom has improved considerably over the last decade and the air we breathe is cleaner today than at any time since the industrial revolution²⁸. However, poor air quality can cause serious adverse health effects and significant benefits can be gained from improving air quality further. The Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 highlights that although the current situation is positive in several respects, the UK is projected to miss objectives on three out of nine pollutants – particles, ozone and nitrogen dioxide – and that road transport is a major contributor to both particles and nitrogen dioxide.
- 9.2.46 In Derbyshire, air quality is generally considered good. However, there are pockets of poor air quality. The worst areas are declared as Air Quality Management Areas (AQMA). These are areas where air quality exceeds recommended thresholds contained within the 2007 Air Quality Strategy. There are five AQMAs currently declared in Derbyshire, although only one relates to traffic on a County Council controlled road, see Figure 9.14. All of these have been declared due to nitrogen dioxide:-
- **A619/ A616 Treble Bob Roundabout, Barlborough AQMA** – was declared in August 2005, relating to a single dwelling. In March 2009 the Department for Environment, Food and Rural Affairs (DEFRA) approved that the AQMA could be revoked following an improved level of air quality. However further 2009 monitoring suggested that the problem may still exist with nitrogen dioxide levels of 39.6µm³ measured against a threshold of 40µm³. Therefore at this stage Bolsover District Council have not revoked the AQMA.
 - **M1 North of Junction 28, South Normanton** – 12 properties alongside the M1 motorway.
 - **Orchard Close, Barlborough** – 5 dwellings alongside the M1 motorway.
 - **M1 North of Junction 25, Sandiacre** – 5 dwellings alongside the M1 motorway.
 - **M1 South of Junction 25, Long Eaton** – 130 dwellings alongside the M1 motorway.
- 9.2.47 In addition to the declared AQMAs, Chesterfield Borough Council has been monitoring a number of locations along the major arterial routes through Chesterfield and the town centre where the annual

²⁸ Jonathan Shaw, Ministerial Forward to The Air Quality Strategy for England, Scotland, Wales and Northern Ireland

mean air quality objective for NO₂ have been exceeded in recent years. As a consequence a widespread consultation was conducted in 2008. A formal declaration of the AQMA has not yet been made.

9.2.48 A number of AQMAs (too many to list here) have been declared in areas that surround Derbyshire. Most of these appear to be traffic related alongside major roads or the M1 Motorway, although a Sheffield-wide AQMA borders the north-east of the County.

9.2.49 Other locations have been under review such as A511 Woodville High Street (Tollgate Island) but South Derbyshire District Council no longer has concerns. However, they now have concerns about the A444 in Overseal (junction with B5004) which is close to guideline threshold values, most likely to be as a result of traffic-borne NO₂²⁹.

Air quality summary

9.2.50 Air Quality Management Area declarations, relating to County Council controlled roads, affect one property in Derbyshire. A second area under consideration is the centre of Chesterfield which would affect a much larger population. Both of these areas are borderline relating to National thresholds. Projections of air quality levels suggest that this will not be a significant issue by the end of the Plan period for Derbyshire, including the AQMAs. In the short to medium term it is likely that air quality will continue to be an issue in the declared AQMA and potential Chesterfield AQMA. In terms of this SEA we are scoping out the remainder of areas of Derbyshire from further examination but will consider any impact upon the A619/ A616 Barlborough AQMA and within Chesterfield town centre.

Traffic Noise

9.2.51 In 1996 the European Commission issued a Green Paper in which it was stated that an estimated 20% of the EU citizens were exposed to noise levels that scientists and health experts considered to be unacceptable, at which most people become annoyed, sleep is disturbed and health may be at risk³⁰. Ambient or environmental noise is unwanted or harmful sound created by human activities. This includes road, air traffic and railway noise. The LTP has little or no influence over air or railway noise and therefore we have not considered this.

9.2.52 The Department for Environment, Food and Rural Affairs (DEFRA) is currently mapping road noise under the terms of the Environmental Noise (England) Regulations 2006. Most of Derbyshire has not yet been assessed, but the likely most important areas for consideration have been identified by DEFRA as First Priority Locations. These are where noise level thresholds exceed 76dBA, which is a level which can be described as more than 50% of people in that location are likely to regard noise as bothering them 'very much' or 'quite a lot'³¹. There are currently 5 roads with locations identified upon them, these are shown in Figure 9.15 and listed below:-

- A617
- A6096
- A511
- A61
- A6

9.2.53 We do not have the data behind the identification of these areas. Therefore to supplement this information we have used the formula from the Noise Regulations, L_{A10 18h}, to estimate traffic noise levels on our roads. Our estimates, shown in Figure 9.15, correlate to some extent with the DEFRA areas, but they suggest that noise levels are lower than 76dBA on county roads. Those that are currently showing as greater than 76dBA are Highways Agency controlled roads. We have projected these estimates forward to 2026 which show that only the A617 (same location as highlighted by DEFRA) may exceed 76dBA.

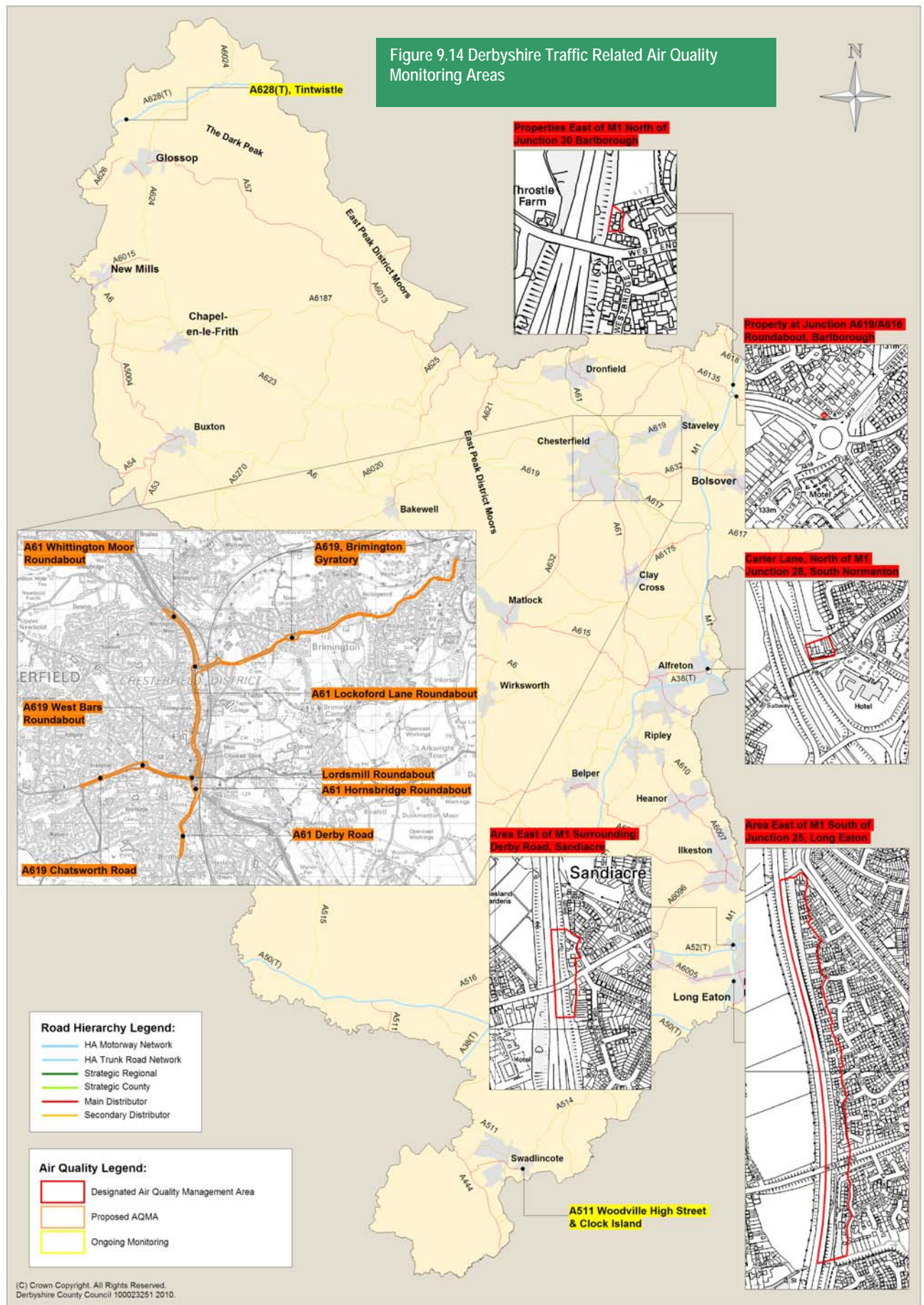
Noise Summary

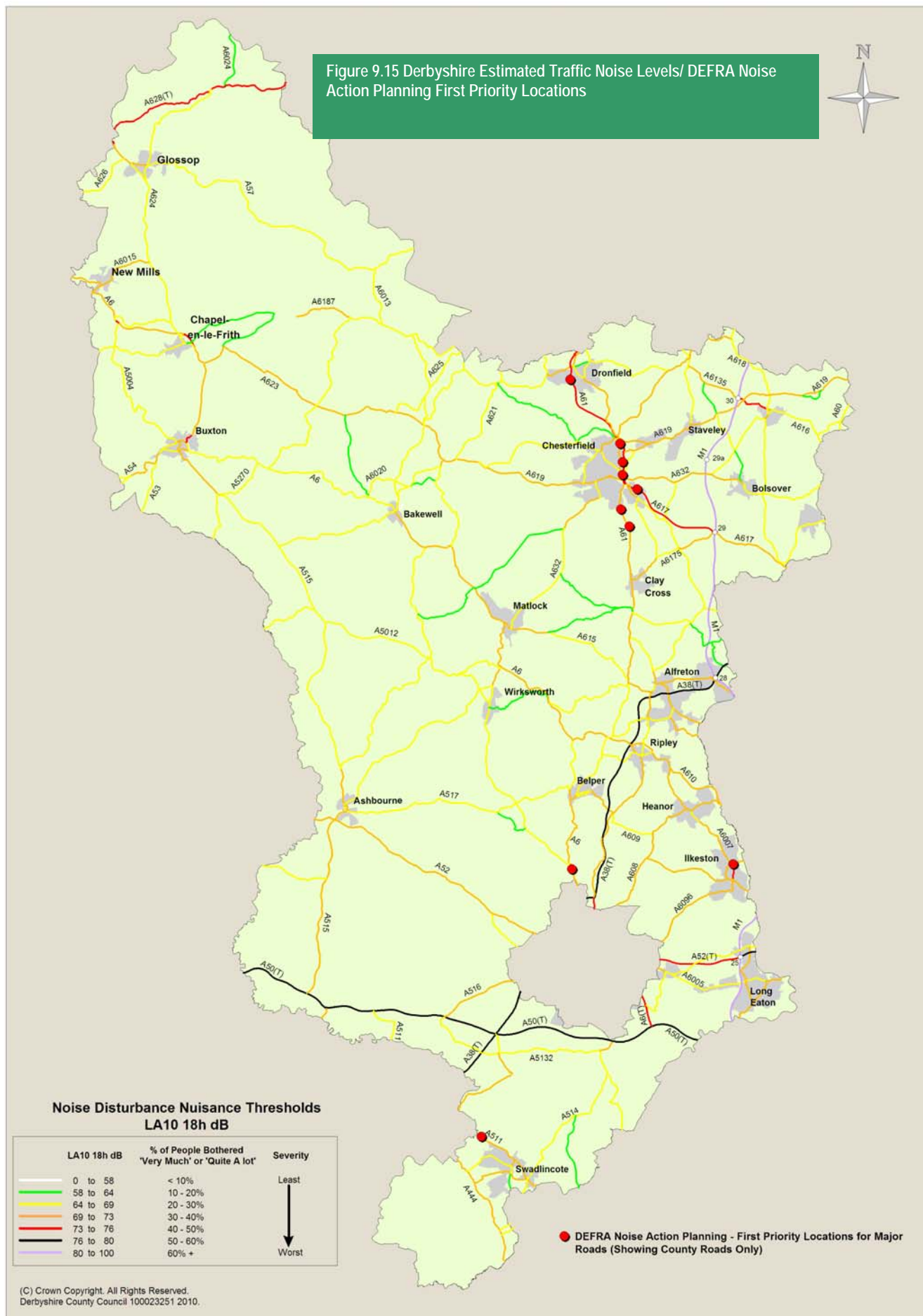
9.2.54 Our estimates of traffic noise suggest that it is not a significant issue for much of the County. DEFRA First Priority Locations show that there may be pockets that are more vulnerable to traffic noise which should be investigated further. Therefore we will consider noise issues in the DEFRA First Priority Locations but scope out the remaining areas from further investigation.

²⁹ Email from South Derbyshire District Council 14 October 2009

³⁰ <http://www.defra.gov.uk/environment/quality/noise/ambient.htm>

³¹ Design Manual for Roads and Bridges Volume 11 Section 3: Traffic Noise and Vibration 1994





Crime

- 9.2.55 Although crime rates are low in Derbyshire, fear of crime persists among residents. 66.1% of Derbyshire residents think crime levels are an important part of making somewhere good to live and 33.1% think that crime levels need improving³². Overall crime in Derbyshire has fallen by 20.9% since 2003/04³³. The English Indices of Deprivation (ID) 2007 for crime highlights 7 areas within the worst 10% in England. These include the town centres of Long Eaton, Chesterfield, Ilkeston, Bolsover, Shirebrook and Heanor. In comparison there are 64 areas within the least deprived.
- 9.2.56 In Derbyshire, people generally feel safe when using public transport. However, 11.3% of Derbyshire residents say that they feel fairly or very unsafe when using public transport alone³⁴. 17.4% of residents said that they felt fairly or very unsafe when outside within their neighbourhood at night compared to 1.6% during the daytime.
- 9.2.57 In recent years there has been a downward trend in serious acquisitive crime where vehicle crime has reduced by 39% between 2003/4 and 2008 and is now at its lowest level for 27 years³⁵. However this crime type is the most likely to arise during any economic downturn.
- 9.2.58 Anti-social behaviour (ASB) includes a range of problems: noisy neighbours, abandoned cars, vandalism, graffiti, litter and intimidating groups. It creates an environment where crime can take hold and affect people's everyday lives. 6.4% of residents said that worrying about crime in their area affects their quality of life a lot and 56.5% said it affects it a little³⁶. Consultation with Citizens Panels has identified that people who are concerned has reduced by 7.6% over the last 4 years.

Crime summary

- 9.2.59 Crime and fear of crime is an important issue for most communities. Generally across Derbyshire crime in relation to transport is not a significant issue. In relation to transport, fear of crime is an issue.

³² Communities and Local Government: 2008 Place Survey England

³³ Safer Derbyshire: Community Safety Self Assessment June 2009

³⁴ Derbyshire Citizens Panel Survey February 2008

³⁵ Derbyshire Community Safety Agreement 2008/2011

³⁶ Derbyshire Citizens Panel Survey February 2008

9.3 Stage A3: Environmental Problems and Opportunities

9.3.1 In this section we summarise the key issues or challenges for LTP3 that we have identified through the SEA Stages A1 and A2, which have identified the key messages of policy and an assessment of the environmental baseline.

Issues/ Challenges	Implications/ Opportunity for LTP3
Population growth/ housing provision/ transport usage.	Population growth is likely to mean around another 100,000 people living in Derbyshire by 2026 which will have implications for demand on the transport network. Spatially this growth is likely to be in areas of new housing which is being planned as part of Housing Market Areas by Local Planning Authorities (LPAs). We know that Derbyshire has a high usage of cars by population and therefore any population increase is likely to increase traffic on Derbyshire's roads. LTP3 provides an opportunity to continue to work with LPAs to minimise any negative impact on the transport network.
Increasing elderly population	Around 30% of the population of Derbyshire will be 60+ in 2026. This will place further demands on the transport network. This particularly impact upon public transport provision as more people with spare time to travel around, combined with peoples' reluctance to drive as they age. Healthy life expectancy at 65 is approximately 12 years. Spatially LTP3 could help to meet these needs in the more rural parts of Derbyshire where there is currently less public transport provision, although the greater numbers of elderly will live in the more urban areas of which differing needs could be helped through LTP3.
Limiting long term illness/ mental and physical disability	Derbyshire has the highest proportion of people with a limiting long term illness in the Region. Health issues such as dementia are predicted to rise by a third by 2020. Trend for a larger and older population and trend to ensure that people, with limiting long term illness, remain in their own homes. LTP3 could help to meet the growing needs and aspirations of elderly and disabled people and for people providing social care needs.
Physical exercise and obesity	Around half of the Derbyshire population is inactive which is linked with obesity of which a quarter of adults and almost a fifth of year 6 children obese. Obesity levels are predicted to rise without mitigation. LTP3 could continue to offer mitigation such as through provision and encouragement of walking and cycling and for those with a limiting disability ³⁷ .
Road casualties	LTP3 could continue to help tackle road casualties through engineering, education and enforcement. Particular casualty categories are car drivers, motorcyclists, rural roads and night time.
Community severance	Predicted traffic in towns and villages can worsen vulnerability to community severance. LTP3 could continue to provide measures to enhance connectivity across communities to improve cohesion.
Air quality	Air quality is not a significant issue outside designated Air Quality Management Areas and is estimated to be a lesser issue by the end of the plan period. Chesterfield town centre is an area under consideration for an AQMA. LTP3 could contribute to reducing air pollution in AQMAs and Chesterfield town centre.
Noise	Noise is not a significant issue across Derbyshire, although DEFRA has identified areas of concern on the County road network. Noise estimates show that noise levels are unlikely to increase significantly by the end of the Plan period. LTP3 could contribute to reducing noise in DEFRA First Priority Locations.

³⁷ NICE Guidance <http://guidance.nice.org.uk/PH8>

9.4 Stage A4: Developing SEA objectives

9.4.1 Emerging SEA objectives for population and human health, including noise, are as follows:

SEA 13 Reduce the emission of air pollutants from transport in declared Air Quality Management Areas which relate to local traffic

SEA 14 Influence the location of development to make efficient use of existing physical infrastructure and to help reduce the need to travel

SEA 17 Improve access to key services and facilities using sustainable modes of transport

SEA 18 Ensure the provision of transport and services considers the needs of elderly people, particularly in rural areas

SEA 19 Improve road safety through targeted interventions, and make travel feel safer particularly by non car modes

SEA 20 Improve community safety, reduce crime and the fear of crime

SEA 21 Improve health by encouraging walking and cycling, and reducing health inequalities

SEA 22 Minimise noise impacts

SEA 23 Enhance opportunities for social contact within communities.