

# 3 • Issues, problems and opportunities

## Midlothian in context

### People

**3.1** Midlothian is a small local authority of 355 Km<sup>2</sup> adjoining Edinburgh's southern and eastern boundary. The area is shown in Figure 3.1 and is framed by the Pentland Hills in the west and the Moorfoot Hills of the Scottish Borders in the south. Midlothian occupies a key location in Scotland's central belt and as a result is subject to huge growth pressures due to its location on the periphery of the capital city.

**3.2** Only 7% of the land area in Midlothian is classed as urban with the majority of these areas generally to the north. The southern half of the authority area, by comparison, is predominantly rural. Table 3.1 shows the population of the main settlements in Midlothian at the time of the 2001 Census.

**Table 3.1 Population of the key settlements<sup>1</sup>**

Settlement	Population	Settlement	Population
Penicuik	16,420	Bonnyrigg / Lasswade	14,776
Dalkeith	11,694	Mayfield	7,966
Gorebridge	6,333	Loanhead	6,205
Newtongrange	4,854	Danderhall	3,045

**3.3** With a population of 79,610<sup>2</sup> in 2004 Midlothian has a population density over three times that of the Scottish average (224 persons per km<sup>2</sup> compared to 65 persons per km<sup>2</sup>). The majority of the population of Midlothian lives in or around the main settlements of Penicuik, Bonnyrigg/Lasswade, Mayfield, Loanhead, Dalkeith, Newtongrange and Gorebridge.

**3.4** In contrast with other areas of the Lothians that have experienced considerable growth over the past 20 years, Midlothian's population has remained relatively static. The 2004-based population projections from the Registrar General estimate that the population of Midlothian will decrease by 1,700 people between 2004 and 2024. These projections are however based only on past trends and do not take account of committed or planned development.

**3.5** The current adopted Midlothian Local Plan allocates / safeguards sites for around 4,500 houses and 25 hectares of economic land (plus 15 hectares for biotechnology). The current Shawfair Local Plan allocates sites for nearly 4,000 houses plus 23.5 hectares of economic land. The finalised replacement Midlothian Local Plan allocates land for a further 2,200 houses across the two Core Development Areas in Midlothian (the A7 / A68 Waverley corridor and the A701 corridor), plus 50 hectares of economic land and 25 hectares for biotechnology / knowledge based industries.

**3.6** From the strategic allocations in the Local Plan alone, there is provision for a growth of almost 11,000 houses, nearly 100 hectares of economic land and a further 40 hectares for biotechnology. In total, taking account also of windfall housing development and other contributions to the base housing land supply, there are 12,000 houses anticipated over

the period to 2015, some of which are already under construction or the subject of development briefs and Section 75 agreements currently being finalised. Two new settlements (Shawfair and Redheugh) are a fundamental part of this development strategy.

**3.7** The quantity of new development proposed in both the Structure and Local Plans means that the existing transport network will require to be expanded and improved in order to serve the new and extended communities and to ensure that increases in population do not simply add to existing problems on the road network.

### Economy

**3.8** Edinburgh and the Lothians have one of the fastest growing economies in the United Kingdom and this growth is forecast to continue. Much of Midlothian has benefited from this growth and has escaped the high levels of unemployment suffered elsewhere, particularly in other former coalfield areas. The area's economy has moved on from the focus on mining,

1 Source: Census 2001

2 Mid 2004 Population Estimates (GROS)



quarrying and paper making in the 1980s and is now gaining a reputation as a hub for the biotechnology and life-sciences industries. Parts of Midlothian are however less well off and experience higher levels of social need and the associated economic and health issues. Improving the transport links to such areas can contribute to reducing social exclusion and improving access to employment, education and health services.

**3.9** The communities of Gorebridge, Mayfield, Easthouses and Woodburn are eligible for investment under the European Regional Development Fund Community Economic Development. These same communities are also to be targeted for investment through Midlothian's Regeneration Outcome Agreement with the Scottish Executive. Smaller pockets of social exclusion also exist within most other communities within Midlothian.

**3.10** Just over 60% of Midlothian's population is of working age, and of these, approximately 80% are economically active. The largest employment sector is the public sector and Midlothian Council is the largest Midlothian-based employer. Unemployment in Midlothian, at 2%, is lower than the Scottish average of 3%.<sup>1</sup>

**3.11** Midlothian has also emerged as a UK, European and world centre for the biotechnology and life sciences sectors and has an international reputation for research, development and production. Midlothian Council has highlighted the development of these sectors as a key element of its Economic Development Strategy and the Midlothian Local Plan has allocated up to 25 hectares of land for the biotechnology / knowledge based industries in the A701 corridor. Good transport links are an essential element in attracting a high quality workforce to Midlothian to serve for this developing sector.

## Health

**3.12** Variations in the health of Midlothian residents are largely parallel to variations in socio-economic standing. Poor health can be seen particularly in the Community Economic Development Areas of Mayfield and Easthouses, Woodburn and Gorebridge, although it is evident in parts of other communities. At the time of the 2001 Census, 19% of Midlothian's population had a limiting long-term illness. This is comparable to the average for Scotland as a whole.

**3.13** The Scottish Health Survey shows that 72% of women and 59% of men in Scotland are not active enough to maintain a healthy lifestyle. Even among children, 27% of boys and 40% of girls are not active enough to meet guidelines.<sup>2</sup> This pattern is reflected at a more local level with 59% of men and 68% of women in the Lothian Health Board area not undertaking enough physical activity to meet health guidelines.<sup>3</sup> Promotion of walking and cycling as forms of transport can contribute to reducing this problem.

## Accessibility and social inclusion

**3.14** Accessibility covers both geographic accessibility (the availability of transport links to access key services such as health, education and employment) and physical accessibility (the physical ability to use the transport links that are available). Poor accessibility in either sense can result in the social exclusion of those affected and a reduced quality of life.

**3.15** The Scottish Index of Multiple Deprivation provides a measure of social need in terms of geographic access based on:

- drive time to a GP;
- drive time to a supermarket;
- drive time to a petrol station;
- drive time to a primary school; and
- drive time to a post office.

**3.16** Figure 3.3 shows the areas within Midlothian that have comparatively poor access to these facilities and shows a distinct split between the east and the west of the local authority area. The area to the south and east of Midlothian has comparatively poor access to key facilities and is ranked among the top 20% to 30% most deprived wards in Scotland in terms of accessibility. There are also areas to the south of Dalkeith and surrounding Easthouses and Mayfield that suffers from poor accessibility when compared with the rest of Midlothian.

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<sup>2</sup> Guidelines state that adults should accumulate (build up) at least 30 minutes of moderate activity on most days of the week. Children should accumulate (build up) at least one hour of moderate activity on most days of the week. (Source: Let'

<sup>3</sup> Scottish Health Survey 2003

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



**3.17** Levels of car ownership can also provide a useful proxy indicator for social exclusion, as in areas where public transport is limited, the car often provides the only means of transport. If a household, or members of a household, do not have access to a car, they are often simply unable to access employment, education, health, leisure or other services. Twenty eight per cent of households in Midlothian do not have access to a car or van, compared to 34% across Scotland as a whole. The wards in which there is a greater percentage of households without a car than the Scottish average are Dalkeith / Eskbank, Dalkeith / Woodburn and Easthouses / Mayfield North.<sup>1</sup>

**3.18** Forty six per cent of households in Midlothian have one car or van. This figure does not however mean that all members of these households are able to access the places they need. If one member of the household uses the car to travel to work on a daily basis, this can leave the remaining members of the household without the ability to access key services and can in turn result in social exclusion. Twenty seven per cent of households in Midlothian own two or more cars / vans.<sup>2</sup>

**3.19** Inaccessibility can also be caused through a lack of physical mobility. Many people find it difficult to use standard public transport services because they are unable to access the vehicles. They therefore become reliant on the private car, lifts from friends or relatives or on community transport services.

**3.20** The Socio-Demographic profile for Midlothian, published by the Midlothian Social Inclusion Partnership in 2005, cites statistics on the proportion of Midlothian residents receiving Incapacity Benefit or Severe Disablement Allowance. The claim rate for Incapacity Benefit and Severe Disablement Allowance for Midlothian was 8% of the 2001 Census working age population (16-64). This is less than the Scottish rate of 10%. Four wards within Midlothian show a higher claimant rate than the Scottish rate, namely:

- Easthouses / Mayfield North (12%);
- Dalkeith / Woodburn (12%);
- Poltonhall / Rosewell (10%); and
- Dalkeith / Eskbank (10 %).

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1 Source: Census 2001

2 Source: Census 2001

## Environment

**3.21** A particular asset of the Midlothian region is its attractive countryside setting. The landscape is varied and consists of significant areas of arable farmland, lowland grasslands, improved and unimproved upland pastures, broadleaved woodland, coniferous plantations, peatlands and grass or heather moorland. Much of the landscape in the area is protected by national and local designations.

**3.22** Air quality in Midlothian is generally good, however the volume of traffic on significant roads within the local authority area is increasing and is forecast to grow by 37% between 2001 and 2015.<sup>3</sup> This is 3% below the national forecasts for growth. One of the key effects of this increase in traffic volumes is a decrease in air quality and the resulting impacts this has on the environment and on human health.

**3.23** The National Air Quality Strategy for England, Scotland, Wales and Northern Ireland has the following objectives relating to Nitrogen Dioxide and particulates:

- Nitrogen Dioxide (NO<sub>x</sub>): 200µg/m<sup>3</sup> (105ppb) not to be exceeded more than 18 times a year. Measured as a 1 hour mean (or 40 µg/m<sup>3</sup> measured as an annual mean), to be achieved by 31 December 2005.
- Particulate Matter (PM<sub>10</sub>): 50µg/m<sup>3</sup> when expressed as a 24hr hourly mean: not to be exceeded more than 7 times a year by 31st December 2010.

**3.24** Under the Environment Act 1995, local authorities are required to review and assess air quality within their areas to see if any of the National Air Quality Strategy (NAQS) objectives are unlikely to be met. In this event a further more detailed assessment will be required for areas of concern. Any areas in which air quality will not or is unlikely to meet the NAQS objectives must be designated as an Air Quality Management Area.

**3.25** There are currently no Air Quality Management Areas in Midlothian, although small sections of the A68 in Dalkeith town centre have been recommended for close monitoring.

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3 Source: Tempro

## The transport network

### Strategic road network

**3.26** The five main transport corridors within the Midlothian area are:



- the A701 (Edinburgh to M74 via Penicuik);
- the A7 (Edinburgh to Scottish Borders via Bonnyrigg and Gorebridge);
- the A68 (Edinburgh to Scottish Borders via Dalkeith);
- the A702 (Edinburgh to Carlisle via West of Penicuik); and
- the A720 (Sheriffhall to Old Craighall Road).

**3.27** The A68, A702 and A720 are trunk roads and are therefore the responsibility of the Scottish Executive through the National Transport Agency for Scotland. The A701 and the A7 fall under the responsibility of Midlothian Council as do all other roads in the area. The part of the A68 (passing through Dalkeith) will be de-trunked after the new A68 by-pass is constructed. In total, Midlothian Council has responsibility for 634km of rural and urban carriageway and a similar length of footway.

**3.28** In addition to the road network, Midlothian Council as Roads Authority has responsibility for the maintenance of 250 structures over 16,000 street lighting units including traffic signs and illuminated bollards, 47 sets of traffic signals and town centre CCTV systems.

### Bus services

**3.29** The majority of bus services serving Midlothian are operated by Lothian Buses or First Edinburgh. Some smaller operators also provide services within Midlothian and between Edinburgh and the Scottish Borders (these include First Borders, MacEwans Coaches, National Express and Munro's of Jedburgh along with others).

**3.30** Bus services in Midlothian can be broadly divided into three categories: those that provide direct links to/from Edinburgh; cross authority services linking

towns within Midlothian; and Community transport services. Each of these is described in the sections below.

**3.31** **Edinburgh services:** A number of frequent and high quality bus services run between the main towns in Midlothian (Dalkeith, Penicuik, Bonnyrigg and Lasswade) and Edinburgh. These services provide excellent links, particularly for commuters (47% of all Midlothian residents work in Edinburgh).<sup>1</sup>

**3.32** Both Lothian Buses and First Edinburgh run frequent and direct services between Midlothian and Edinburgh city centre. First Edinburgh 86, Lothian Buses 49 and Munro's of Jedburgh 308/328 also serve the New Edinburgh Royal Infirmary at Little France.



**3.33** A number of services also run from the Scottish Borders to Edinburgh, through Midlothian.

**3.34** **Cross-authority services:** Other local corridors are generally less well served by public transport. Due to the strong links that exist with Edinburgh, improvements to these routes tend to have been given less priority in the past. However, a number of key routes exist, particularly between the main towns of Penicuik, Bonnyrigg and Dalkeith, including First Edinburgh services 140 and 141.

**3.35** **Community transport services:** Community transport services make up an important part of the transport network and provide transport links to those who either do not have access to a regular public

<sup>1</sup> Source: Midlothian Migration and Commuting Patterns, Midlothian Council

transport service, or who find using public transport services difficult due to mobility difficulties. In Midlothian, such services are predominantly provided by:

- Lothian Community Transport Services (LCTS): an independent organisation providing accessible and affordable passenger transport services across the Lothians; and
- Handicabs Dial-a-Ride and Dial-a-Bus services: Dial-a-Ride provides door-to-door transport services for people with limited mobility who are unable to use ordinary buses. Dial-a-Bus services provide transport from home to local shopping centres for people who cannot travel by ordinary bus services.

**3.36** The Council also operates a Ring-and-Go service which links the rural areas of Howgate, Loanstone and Maybank with Penicuik where passengers can access services and connect with other transport services. The service was launched in February 2006 and replaced the existing rural taxi service 'Dial-a-Journey'. It is an aspiration of the Council to provide more such services linking other rural areas to key service centres.

### Rail services

**3.37** There are currently no rail services within Midlothian. However proposals to re-introduce a railway line between Edinburgh and the



Scottish Borders, with stations at Shawfair, Eskbank, Newtongrange and Gorebridge in Midlothian are at an advanced stage. The new rail link will be created through the re-opening of the old Waverley rail line and will provide a passenger service, restoring a public transport link that has been lacking since the railway closed in the 1960s.

**3.38** The Bill to promote the rail line is one of the first rail proposals to have gone before the Scottish Parliament and it subsequently received Royal Assent on 24th July 2006. It represents the next step in grasping a significant opportunity to bring about a step change in public transport provision for Midlothian and the Scottish Borders and improve the flexibility of the Scottish rail network. The rail line contributes to a

wide range of central government objectives including, to increase social inclusion, reduce road based traffic, stimulate economic regeneration and increase sustainable passenger rail travel.

**3.39** The scheme is being promoted jointly by Scottish Borders Council, Midlothian Council, City of Edinburgh Council and supported by Scottish Enterprise Borders. These bodies intend to ensure that a set of common objectives for the scheme is maintained within the transport policies of the three councils. These are:

- reducing the perceived isolation of the Scottish Borders;
- facilitating modal shift from car to public transport, not only for those communities located along the rail link but for those linked to it by high quality bus services;
- improving facilities for interchange;
- improving public transport links between the key centres in the Scottish Borders, Midlothian and with Edinburgh and the rest of southeast Scotland; and
- improving access to jobs and services for those people who depend on public transport.

**3.40** In the longer term, the Council also wishes to expand rail services to Straiton, Loanhead and Penicuik.

## Key findings of the consultation exercises

### Stakeholder questionnaire

**3.41** A 17% response rate was obtained from the survey, which asked a number of questions to gain peoples views on transport in Midlothian in general. The survey covered issues such as how people currently travel, what they think could be done to improve the existing transport network and what would encourage them to switch from their car to more sustainable modes.

**3.42** The majority of respondents to the survey (83%) either agreed or strongly agreed with the draft aims and objectives of the strategy, as outlined in the questionnaire. When asked about the importance of seven broad issues to the future of travel in Midlothian, the following results were obtained.

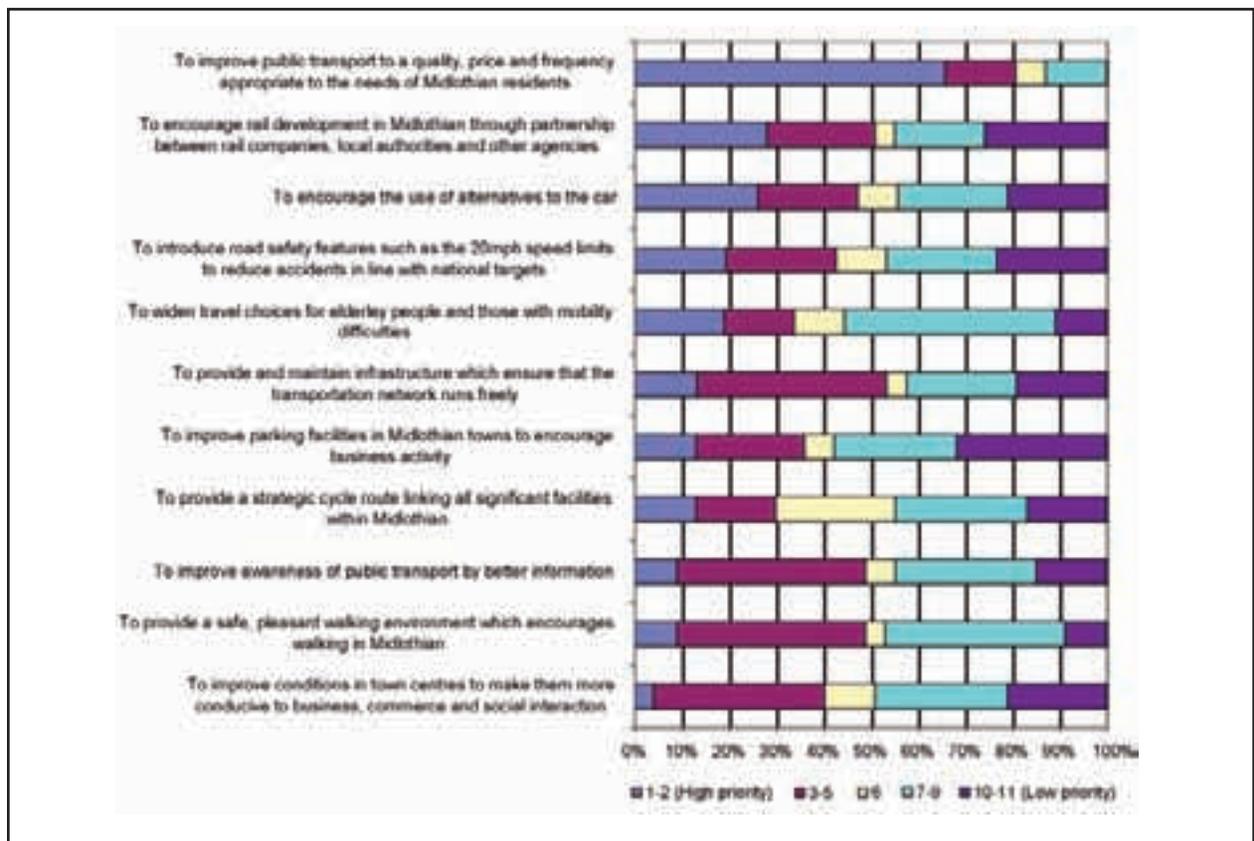
### Table 3.2 Importance to the future of travel in Midlothian

	Very important	Fairly important	Not important	Don't know	Total
Improving the environment, less congestion and pollution	82%	16%	0%	1%	100%
Reducing road accidents	77%	23%	0%	0%	100%
Encouraging more public transport use	70%	26%	3%	2%	100%
Encouraging more walking and cycling	60%	30%	9%	1%	100%
Reducing the amount of car use	58%	37%	4%	0%	100%
Giving people equal opportunities to travel	54%	34%	9%	3%	100%
Re-introducing rail services	46%	39%	15%	0%	100%

**3.43** Environment emerges as the most important issue here, with 82% of respondents classing this as 'very important' and is followed by safety (77% of respondents ranked reducing road accidents as 'very important').

**3.44** The stakeholder questionnaire also asked respondents to prioritise a number of potential strategy options / schemes for the LTS. Figure 3.4 below shows that improving the quality, price and frequency of public transport is by far the most important factor with 66%

**Figure 3.4 Rank of potential strategy options / schemes**



of respondents ranking this in the top two. Encouraging rail development in Midlothian was also ranked high by respondents with just under 30% awarding this a high priority. Despite the fact that encouraging the use of alternatives to the car is ranked third, improving cycling and walking facilities are ranked among the lowest.

**3.45** When asked what would most encourage respondents to use public transport instead of travelling by car, the most common responses were 'more direct bus routes', 'more frequent services' and 'quick reliable services'. Appendix A provides full details of the results of the survey.

## Communities and stakeholders

**3.46** The community and stakeholder workshops and discussions with the Youth Forum highlighted a wide range of issues that are important to the people, businesses and service providers in Midlothian. Some of the key points are summarised in Table 3.3 below.

**Table 3.3 Key issues from community and stakeholder workshops**

Information	Public transport information at bus stops is often difficult to read at night in rural areas. It was felt that in the past, public transport services have not been publicised effectively. Real time information would be beneficial.
Public transport	It was identified that Roslin, Temple, Rosewell, parts of Bonnyrigg and Poltonmill would benefit from improved public transport links.
Access to key services	Key sites identified for improved transport provision were the Dalkeith Schools Campus (in particular outwith school hours), Straiton retail park, Fort Kinnaird, the new Community Hospital at Eskbank and health facilities at Roodlands in Haddington and Edenhall in Musselburgh. Access to the Edinburgh Royal Infirmary by public transport from the West of Midlothian is particularly difficult.
Park and Ride	Park and Ride is generally seen as a positive measure and becoming increasingly important. The extension of parking zones in Edinburgh may become an issue for Midlothian residents who currently use informal park and ride methods to get to work. Parking is a huge issue for retailers in Dalkeith and Penicuik town centres as many currently use the free parking as informal park and ride sites. This is resulting in a lack of short-term parking for shopping trips.
Roads	Grade separation of Sheriffhall is seen as a high priority. There is congestion on all arterial roads however the A7, A702 and Sheriffhall roundabout are seen to be getting worse and there is concern this will continue with planned new developments in these areas. Wear and tear on Midlothian's roads has to be maintained, however it is recognised that much of the traffic originates in other areas and is simply passing through.
Road safety	20 mile per hour zones are widely seen as a positive measure.
Rail	Some concerns were raised about the proposed capacity of trains on the Waverley rail line.
Cycling and walking	The introduction of the Waverley rail line means that some routes will be lost and sensible alternatives are being provided to replace them. Off road cycle routes are preferred to on-road cycle lanes. The new Tyne Esk Trail is a valuable resource and should be publicised more and better linked to the public transport network. Information on walking and cycling should be more widely available.

## Problems and Opportunities

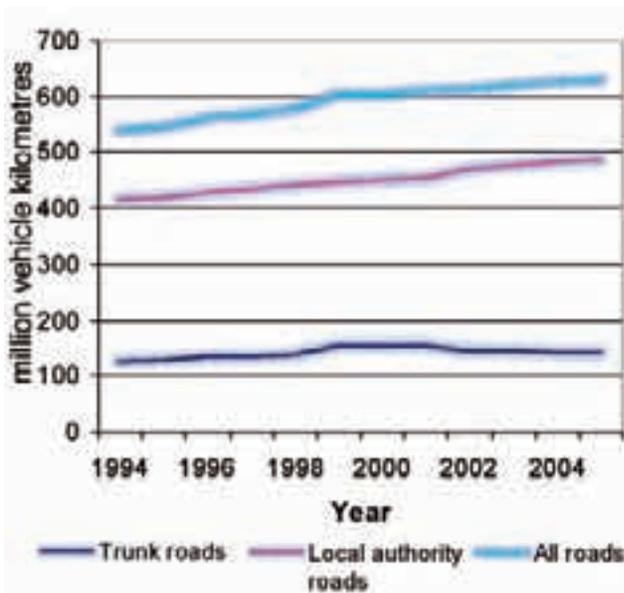
**3.47** Midlothian is a complex area with varying environmental, socio-economic and demographic factors. This LTS has fully taken account of the way in which these factors can influence demand for travel in order to develop interventions that address current trends and respond to the wider accessibility and sustainability agendas.

**3.48** The following paragraphs provide detail on the specific problems and potential solutions relating to transport in Midlothian. The feedback obtained during the consultation process has been used extensively to compile this section.

### General traffic

**3.49** As is the case across Scotland as a whole, road traffic continues to increase. In 2005 a total of 627 million vehicle kilometres travelled on roads in Midlothian, an increase of 17% since 1994<sup>1</sup>. Figure 3.5 shows that traffic on local authority roads has been steadily increasing since 1994.

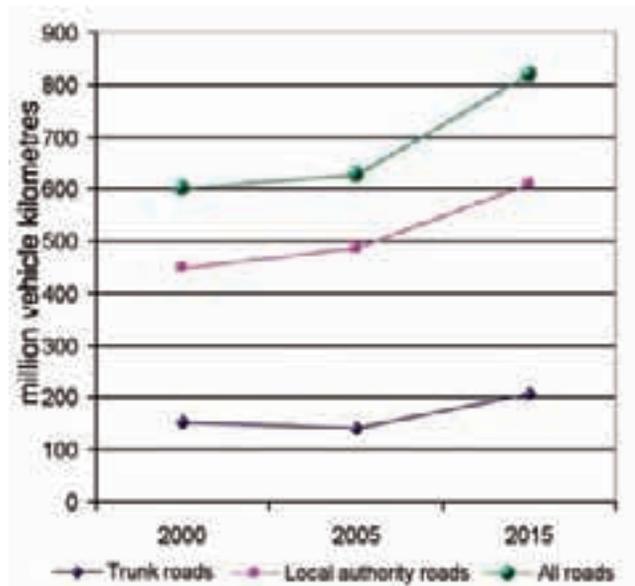
**Figure 3.5 Road traffic levels in Midlothian<sup>2</sup>**



**3.50** In light of the planned developments contained in the Structure Plan, and without measures to control

traffic levels, the trend of increasing traffic levels is likely to continue, and possibly speed up even further. Using growth factors provided by Temprow, it is forecast that traffic will increase by 37% between the year 2000 and 2015. This is illustrated in Figure 3.6 along with data for the year 2005.

**Figure 3.6 Traffic growth predictions to 2015**



**3.51** There are opportunities to curb this growth in traffic by encouraging a shift away from use of private cars to more use of public transport, and more cycling and walking. This would have benefits not only in reducing congestion on the roads and improving journey times, but also in contributing to maintaining and improving air quality and the overall health of the population.

### Travel to work

**3.52** The number of cars owned by the residents of Midlothian has risen steadily in the past five years from 30,900 in 1999 to 34,500 in 2004.<sup>3</sup> This equates to a rise from 95 cars per 100 households to 103 cars per 100 households. This growth is similar to trends across Scotland. The proportion of households who do not have access to a car is however much lower in Midlothian than for Scotland as a whole (28% of households compared to 34%).<sup>4</sup>

<sup>1</sup> Source: Scottish Transport Statistics 2005 edition.

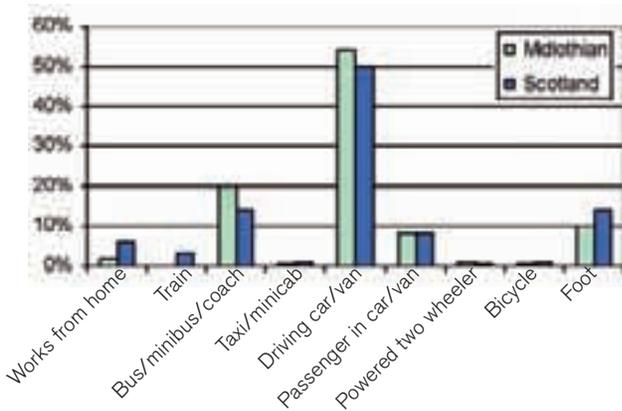
<sup>2</sup> Source: Scottish Transport Statistics 2005 edition.

<sup>3</sup> Source: Scottish Transport Statistics and Census 2001

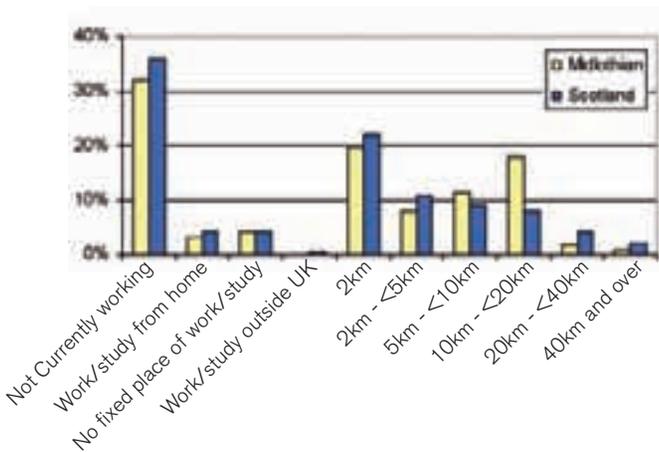
<sup>4</sup> Source: Census 2001

**3.53** Figure 3.7 shows that car travel is the most common mode of travel used for journeys to and from work amongst Midlothian residents, accounting for 62% of journeys in 2001. The next most popular mode is bus, which accounts for 20% of all journeys to work. Figure 3.8 shows that many of these journeys are short: 20% of the working age population travel less than two kilometres to work. A further 21% of the resident population travel 10 kilometres or more on their journey to work, reflecting the high proportion of residents who travel into Edinburgh to work.

**Figure 3.7 Mode of travel to work<sup>1</sup>**



**Figure 3.8 Distance travelled to work<sup>2</sup>**

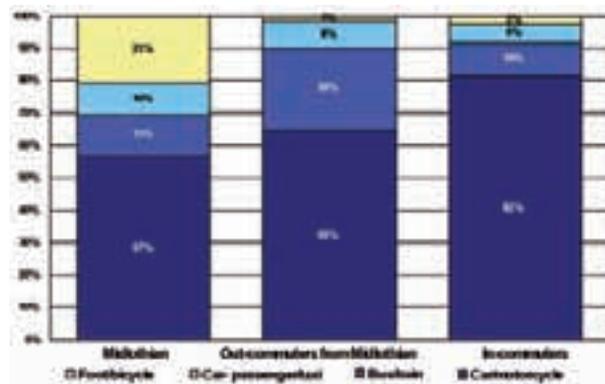


**3.54** Just over half of the working age population in 2001 travelled outside of Midlothian to work. Conversely, a third of the local workforce lives outside Midlothian. It is clear from these statistics that there is

a large amount of travel both in and out of Midlothian for the journey to work alone.

**3.55** Figure 3.9 below compares the modes of travel used by those who both live and work in Midlothian, and of those who commute into or out of Midlothian. For all three types of journey, the private car is the predominant means of travel, however it is highest among those travelling into Midlothian from other areas. Bus use is highest amongst those who are travelling from Midlothian to other areas reflecting the good bus links from Midlothian's key towns into Edinburgh.

**Figure 3.9 Means of travel to work by Midlothian residents<sup>3</sup>**



**3.56** Of those who travel out of Midlothian to work, the vast majority (47%) are travelling to work in Edinburgh as illustrated in Figure 3.10 below.

**Figure 3.10 Travel to work patterns of Midlothian residents**



1 Census 2001

2 Census 2001

3 'Midlothian Migration and Commuting', Midlothian Council

**3.57** The commuting patterns described above are clearly influenced by the transport networks and the levels of accessibility they provide by different modes. For example, Edinburgh and Midlothian are well linked by public transport services and as a result, travel to work by bus is highest for commuters travelling from Midlothian to Edinburgh city centre. On the contrary, bus use for trips within Midlothian is much lower, partly because many of these are shorter trips and can be walked, but also due to the fact that east / west public transport services are less comprehensive.

**3.58** Despite the good links from Midlothian to Edinburgh city centre, there are areas of significant employment opportunity in Edinburgh that are less accessible to those Midlothian residents that do not travel by private car. In particular, public transport access from Midlothian to the rapidly expanding employment hub in West Edinburgh is relatively poor. The Edinburgh and Lothians Structure Plan 2015 identifies orbital public transport on the city bypass as a priority for the region. The proposed Waverley rail route will also help address this issue.

**3.59** The consultation process highlighted a desire to see an improved local public transport network particularly linking the eastern and western areas of Midlothian and integrating with the already good north / south public transport links along the key corridors from Midlothian into Edinburgh.

## **Congestion**

**3.60** One of the issues most commonly emerging from the consultation process was congestion on routes between Midlothian and the City of Edinburgh. As discussed above, a large proportion of Midlothian's working population travel to work in Edinburgh whilst many of the businesses located in Midlothian also trade in Edinburgh. Add to this a significant amount of through-travel and it is understandable that the arterial roads linking Midlothian and Edinburgh can become severely congested, particularly during the peak periods.

**3.61** Figure 3.11 shows the average annual daily traffic flow at key points on the road network. The highest volumes of traffic (> 20,000 vehicles per day) can be seen on the A701 and A7.

**3.62** Although all the main arterial roads in Midlothian are affected by congestion, the Sheriffhall roundabout is repeatedly highlighted as one of the areas worst affected. Congestion at Sheriffhall is not

only affecting commuter trips, but also the response times of emergency vehicles, and in particular, ambulances from the Edinburgh Royal Infirmary at Little France. The Scottish Ambulance Service reports that ambulance response times for Midlothian have increased since the hospital moved to Little France, despite the fact that it is now closer to Midlothian. This is due to the fact that ambulances are now more likely to have to travel through the Sheriffhall roundabout.

**3.63** Consultation highlighted that there are concerns that congestion in this area will increase with the volume of development proposed for Midlothian, particularly in the South East Wedge (Shawfair), unless measures are taken to reduce traffic growth. The Shawfair development will however contribute to improvements at the Sheriffhall junction and the provision of the Waverley rail line, as well as new bus services to serve the area.

**3.64** Rising traffic and congestion levels are a national problem. Midlothian Council will continue to work closely with public transport providers and others to promote alternatives to the private car in order to make them more attractive and explore land use planning opportunities to make car travel less attractive. As discussed above, Midlothian has close links with the City of Edinburgh and other neighbouring local authorities and there is much cross-boundary travel. As a result, the Council will work in partnership with neighbouring authorities and as part of the SEStran Transport Partnership to develop both regional and local solutions to these problems.

## **Maintenance**

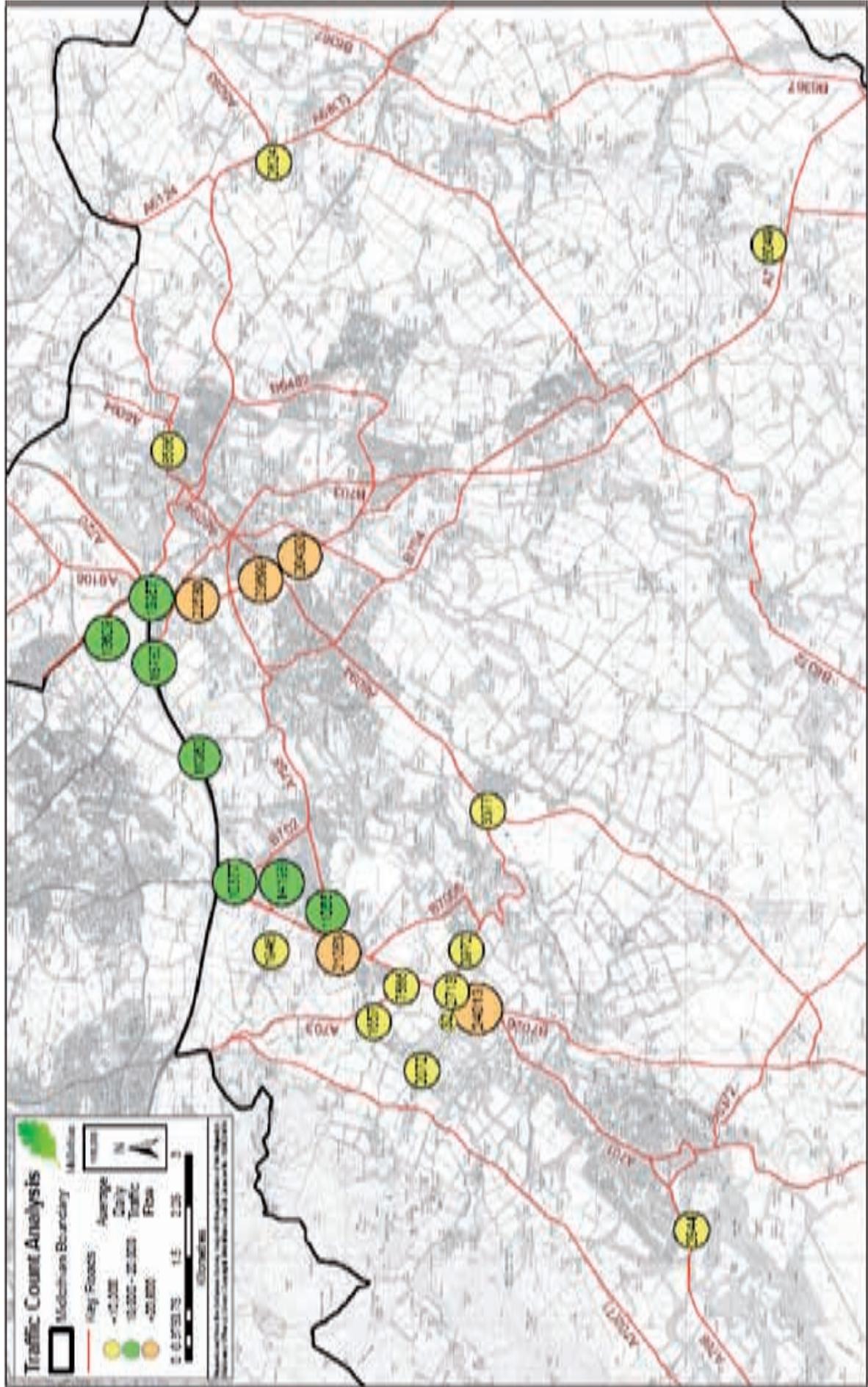
**3.65** Midlothian Council is responsible for 634 kilometres of roads comprising 88 km of 'A' class roads, 97 km of 'B' class and 449km of 'C' and unclassified roads. In addition, the Council is also responsible for 270 structures, including bridges and culverts.

**3.66** A 2003 condition survey showed that over 39% of Midlothian's road network was in need of maintenance treatment with an estimated total cost of just over £29 million required to eradicate this backlog.<sup>1</sup> The increasing need for maintenance work, coupled with constrained budgets means that works are often postponed from one year to the next. Some of the postponed schemes are further delayed by essential works which are subsequently identified

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1 The Scottish Road Maintenance Condition Survey, 2003

**Figure 3.11 Road Traffic Data**  
 Source: Midlothian Council traffic count data.





and prioritised. As a result, it is estimated that this maintenance backlog has been rising at approximately £1 million year on year.

**3.67** In 2004-05, 9% of 'A' roads, 27% of 'B' roads, 4% of 'C' roads and 16% of unclassified roads were classed as having deteriorated to the point at which repairs to prolong their future life should be considered. In total, 45% of all roads in Midlothian were classed as at least requiring further investigation to establish if treatment is required.<sup>1</sup>

**3.68** There are considerable opportunities to improve the condition of the road and footway network in Midlothian, however this is significantly constrained by the budget available for such works.

### **Walking and Cycling**

**3.69** There is huge potential to make walking and cycling more attractive in Midlothian. Approximately 31% of trips made by Midlothian residents are short (under three kilometres), a distance which would be

comfortable for many people to be made by bicycle.<sup>2</sup> Of journeys to work, 28% of commuters travel less than five kilometres yet only 1% cycle to work. The 2001 Census also shows that 10% of trips to work by Midlothian residents were made on foot. This is lower than the Scottish average of 14%.

**3.70** Encouraging sustainable modes of transport is a priority for the Council, not just to ease congestion on the road network, but to help improve air quality and to contribute to improving the health and well-being of the population through increased physical activity.

**3.71** In addition to improving local cycle facilities, there are opportunities to work at a regional level and provide cycle routes that complement and link to those in neighbouring local authority areas. Consultation has highlighted that strategic cycle routes that link to those in Edinburgh would be welcomed and could encourage more cycling on the journey to work. Off-road cycle routes are considered by many to be a more attractive option than cycle lanes on existing roads and the Council is looking at opportunities to

<sup>1</sup> Source: Scottish Transport Statistics Number 24, 2005 Edition.

<sup>2</sup> Source: Scottish Household Survey Travel Diary Results, 2004



extend the cycle network on disused rail lines within Midlothian.

**3.72** There is also the opportunity for this LTS to link to the Council's Core Paths Plan, currently being developed, and ensure that there is consistency and integration between the two.

#### **Public transport**

**3.73** Buses offer the biggest opportunity to make alternatives to the private car more attractive. However, it is a real challenge to encourage significant numbers of people to transfer to public transport. At the heart of this is the common perception that public transport services are poor, a perception which may not recognise the improvements brought about by investment in recent years by both the council and the transport operators.

**3.74** These perceptions are not however held

by all and the consultation process highlighted that improvements that have been made to services, vehicles and information provision are recognised and welcomed. Consultation also highlighted areas where further improvement would be welcomed, including increased coverage of the bus network, improvements to hours of operation, service frequencies, reliability, cleanliness and integration with other public transport services.

**3.75** The re-opening of the Waverley Rail line, scheduled for 2011, will provide opportunities for integration between bus and rail services and improve connections across the SEStran region. Consultation carried out as part of the Waverley Rail Project itself showed that 94% of respondents are in favour of reinstating passenger rail services between Edinburgh and the Scottish Borders and 90% of all respondents stated that they would use the service. Consultation for this LTS also highlighted that proposals for this scheme are generally welcomed.

## Community transport

**3.76** Community transport services are a vital service to people with mobility difficulties and provide not only a transport service, but also increased opportunities for social interaction and inclusion. Community transport services are currently well used in Midlothian, however there are opportunities to increase awareness of them and expand on the services provided.

## Travel Plans

**3.77** Almost half of all schools within Midlothian now have a travel plan in final or draft form. Travel surveys undertaken as part of the school travel plans programme shows that approximately 53% of primary children currently walk to school with a further 33% arriving by car. Currently, the only secondary schools in Midlothian with a travel plan are those based at the Dalkeith Schools Campus. There are therefore opportunities to expand this programme to other secondary schools.

**3.78** There are also opportunities to further promote the importance of travel planning to employers in the area and Midlothian Council, as the largest single employer in the area, has the opportunity to lead by example in producing their own travel plan for council staff. The Council is currently in the process of developing a staff travel plan and this is due to be finalised at the end of 2007.

## Safety

**3.79** Ensuring safety and personal security are top priorities for the Council, a view that has been reinforced by the findings of the consultation process. This covers a range of issues from road safety for all road users and safety and security whilst using public transport services. In many cases, people's perception of safety and security on public transport can act as a barrier to travelling by bus, whilst concerns over road safety can discourage cycling and walking.

**3.80** Although the number of road accidents has fluctuated in recent years, reductions in casualties have been achieved overall. The Midlothian Road Safety plan highlights that, based on the 1994-1998 average, there was a 24% reduction in killed and serious casualties, 15% reduction in killed and serious injured child casualties and a 3% reduction in slight casualties.

**3.81** A range of road safety initiatives were implemented during the life of the first LTS, aimed at improving road safety. The implementation of 20 mph zones around all schools has been particularly welcomed and this was highlighted during consultation, particularly by community representatives. The Council aims to continue to improve road safety by reducing the number of accidents on the roads and also to ensure that people feel safe and secure when travelling on public transport services.



## Parking

**3.82** Parking is an effective way to manage traffic in town centres. However, doing so is often a contentious issue, particularly when restrictions are introduced where previously there have been none. Midlothian Council currently does not charge for parking anywhere within the local authority area. As a result, the main town centres of Dalkeith, Penicuik and Bonnyrigg are used as informal park and ride sites by people travelling into Edinburgh by bus and by people working in these town centres who are able to park their car free of charge all day.

**3.83** This causes problems for local shoppers and others accessing facilities in the town centres such as libraries. The Council has completed studies, both for Dalkeith and Bonnyrigg town centres and in each case, recommendations identified a charging regime as one of the potential solutions.

**3.84** A careful balance needs to be struck between providing sufficient parking supply in the town centres to maintain and, if possible, revitalise the retail economy whilst at the same time manage the demand through restricted parking supply. Any parking regime will also need to facilitate access to opportunities and support economic development whilst reducing the impact of the private car on the environment, in particular air quality in the town centres.

## Commercial vehicles

**3.85** Between 2000 and 2004, an average of 17,818,000 tonnes of freight originated in the Lothian region and was transported by heavy goods vehicles (HGVs).<sup>1</sup> Of this, 11,544,000 tonnes (65%) was transported within the Lothian region. During the same period, HGVs transported 20,602,000 tonnes into the Lothian region.

**3.86** The majority of goods are therefore only transported relatively short distances. This assertion has been confirmed by freight industry representatives, who estimate that the majority of freight is transported approximately 90 miles in larger vehicles (approximately 50 miles for smaller vehicles). The proportion of smaller vehicles is however increasing and is, in part, due to

the growth in the home delivery and internet sales markets.

**3.87** Large volumes of commercial vehicles, in particular HGVs, can be problematic on narrow or residential roads. Their contribution to emissions is also disproportionately high, although it is recognised that vehicles are a lot cleaner with regard their emissions than has been the case in the past. There are also concerns over road safety in areas where there is a high proportion of HGVs on the roads, and this was highlighted during public consultation.



**3.88** The Council recognises that accommodating commercial vehicles is important to local businesses and the Council has the opportunity to work with the SEStran partnership to address this issue on a regional level for issues such as provision of overnight parking and identification

of suitable routes. The Scottish Executive has recently published a Freight Action Plan as part of its National Transport Strategy. This document aims to ensure that freight and logistics are recognised within national and local policy frameworks, that the needs of freight users are taken into account in the development of transport policies and that any government interventions are appropriate and effective.<sup>2</sup>

## Environment

**3.89** Climate change poses a major environmental, social and economic challenge. There is a consensus that the underlying causes of changing weather patterns are the increased carbon dioxide (CO<sub>2</sub>) emissions resulting from human activities, particularly the burning of fossil fuels and deforestation. If current global warming patterns continue, there will be a significant increase in mean summer temperatures, winters will experience an increased amount of rainfall and the moderating influence of the Gulf Stream on the climate of the British Isles will be reduced.

**3.90** Transport significantly contributes to the increased concentrations of greenhouse gases in the atmosphere. Atmospheric concentrations of carbon dioxide have been rising for 200 years from pre-

1 2005 Scottish Transport Statistics

2 Copies of the National Freight Strategy will be available on the Scottish Executive website – [www.scotland.gov.uk](http://www.scotland.gov.uk)

industrial levels of 270ppm (parts per million) to 377ppm by the end of 2004<sup>1</sup>. This coincides with the increase in traffic volumes. CO<sub>2</sub>, the main greenhouse gas, is emitted by road vehicles through the consumption of carbon-based fuels. If traffic volumes continue to increase, CO<sub>2</sub> is also likely to continue to rise.

**3.91** The Energy White Paper emphasises the need for urgent action to tackle climate change by setting the UK target of 60% reduction in its carbon dioxide emissions by 2050.<sup>2</sup> It has nominated local government as a key partner in achieving this shift. Although climate change is a global issue, it needs to be tackled at a local level. There are opportunities to do this through the Local Transport Strategy by encouraging a shift away from the private car to more sustainable forms of transport, including public transport, cycling and walking.

**3.92** Air quality is also an important environmental issue and one that was raised through the consultation process. Air quality in Midlothian is generally good, however the volume of traffic on significant roads within the local authority area is increasing and is forecast to grow by 37% between 2001 and 2015<sup>3</sup>. One of the key effects of this increase in traffic volumes is a decrease in air quality through emissions of nitrogen dioxide and particulate matter and the resulting impacts this has on the environment and on human health.

**3.93** The Midlothian Council Local Air Quality Management Updating and Screening Assessment 2006 identified that the annual mean objective for nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM<sub>10</sub>s) were forecast to be met at all locations, except for PM<sub>10</sub> in Pathhead. The results for nitrogen dioxide at potential hotspots are not at levels which exceed or approach the air quality objectives, however in terms of both NO<sub>2</sub> and PM<sub>10</sub>, it is recommended that monitoring continue in central Dalkeith. The annual mean concentration of PM<sub>10</sub>s measured at Pathhead indicates that the annual mean objective for 2010 could be exceeded, however this is not identified as being due to transport emissions. It will however be important to maintain the good air quality experienced across Midlothian despite forecast increases in traffic.

## Summary

**3.94** There are a number of generic problem areas that this LTS confronts and the objectives and programme of interventions responds to these:

- Many people living in Midlothian have to travel outside the area for work, primarily to Edinburgh. While public transport services from the key Midlothian towns to Edinburgh city centre are generally good, other employment areas in the city are less accessible by public transport from Midlothian. East – west public transport links across Midlothian are also relatively poor, compared to the private car and this is reflected in the high proportion of people who travel by car to work in Midlothian.
- There are growing traffic congestion problems and there is potential for this ultimately to damage the local economy and local environment. Significant planned new development will only add to this problem in the future if steps are not taken to encourage travel by other forms of sustainable transport.
- While people have noticed the improvements to the local bus system in recent years, there is still much that can be improved, particularly east – west routes and evening and weekend services.
- There are excellent opportunities for walking and cycling in Midlothian, both for leisure and as a means of transport. There is the potential to expand the network of routes and encourage more short trips to be undertaken by these modes.
- Use of town centre car parks as informal long stay park and ride facilities for the journey to work is resulting in a shortage of short term parking spaces. This is resulting in a lack of parking spaces for local shoppers who are travelling elsewhere to shop as a result. This is in turn having a detrimental effect on town centre economies.

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1 Source: Climate Change: the UK programme 2006

2 DTI (2003) Our Energy Future – Creating a Low Carbon Economy TSO.

3 Source: Tempro