Staffordshire
Local Transport Plan 2011

Strategy Plan

Staffordshire
County Council

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Foreword

Transport is an essential part of everyday life - it enables us to visit family and friends, commute to work, access healthcare, education, shopping and leisure activities, and it supports a healthy and vibrant economy. Good transport connections are integral to our plans for economic growth and protecting our environment to ensure a sustainable future for all.

We are in challenging times. The necessary cuts to public spending mean that we have seen an overall reduction in the level of funding available to deliver the Local Transport Plan. We will not be able to fund all desirable activities and difficult decisions will have to be taken about where to focus limited resources. Despite this, we remain positive and have set out ambitious plans for local transport provision and highway maintenance, including:

- Enabling economic growth without causing congestion.

- Helping businesses access suppliers, markets and a workforce.

- Providing opportunities for residents and visitors to access jobs, training and education.

- Maintaining the current condition of the highway network and its infrastructure.

- Keeping the highway safe and serviceable whilst achieving value for money.

- Reducing social exclusion faced by residents.

- Improving on our excellent road safety record.

- Tackling crime, fear of crime and anti-social behaviour on the transport network.

- Responding to current and future climatic conditions.

- Encouraging and providing for active travel.

- Minimising the negative impacts of transport on the environment.

- Enhancing the environment through the management and maintenance of the highway network.

We will maximise the benefit of the investments we make and generate the best outcomes for residents and business. We will get more from our existing highway assets, seek opportunities for partnership working and use innovative delivery techniques and financing models.

Dr Catherine Raines
Director for Place & Deputy Chief Executive

Councillor Mike Maryon
Lead Cabinet Member for Highways & Transport

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Introduction

This is the Strategy Plan for Staffordshire's third Local Transport Plan (LTP). It sets out the County Council's proposals for transport provision in the county, including walking, cycling, public transport, car based travel and freight, together with the management and maintenance of local roads and footways[1].

Because transport is not an end in itself but rather a way of providing access for people, goods and services, it can impact upon a number of wider issues including the economy, community safety, the environment and health and quality of life. The Strategy Plan has been structured to reflect transport's contribution towards these wider issues, and includes highway maintenance, which impacts on all of them.
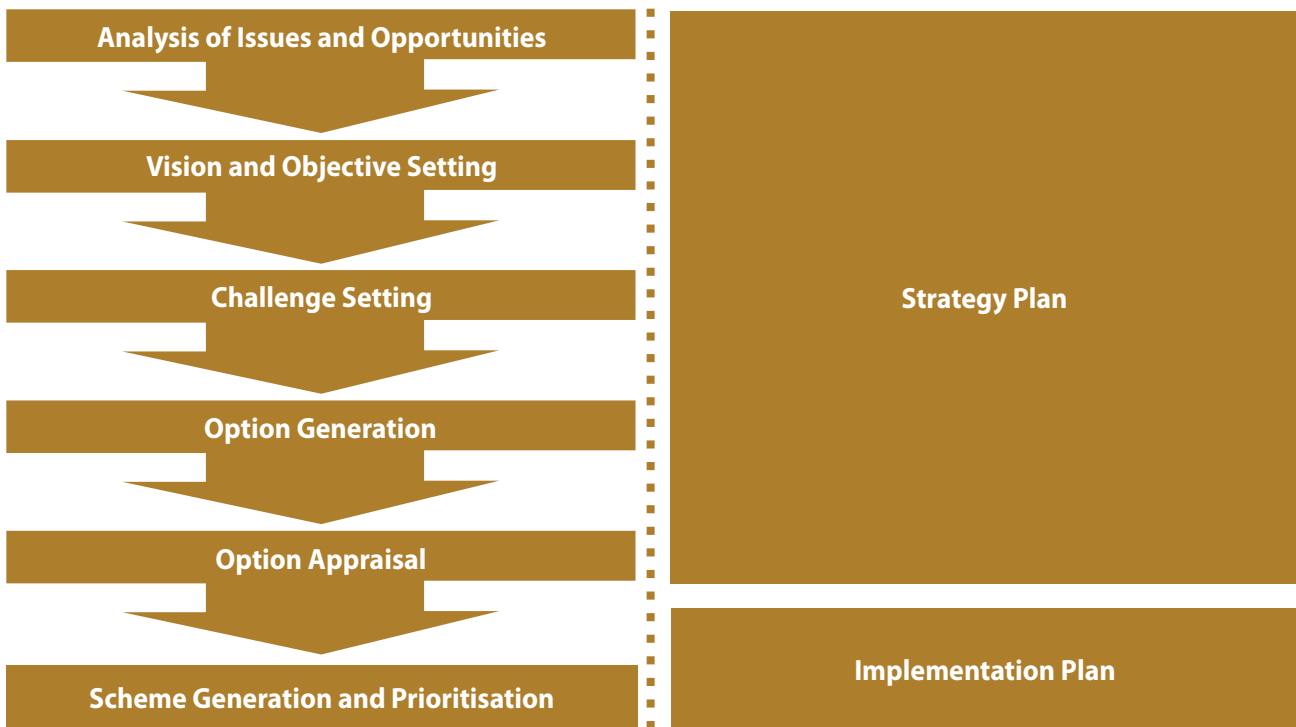
In recognition of the fact that Staffordshire has a diverse mix of communities, each with their own problems and opportunities, District Integrated Transport Strategies will be developed to provide a local context for the LTP (Appendix A). Joint statements will also be produced with three neighbouring transport authorities - Stoke-on-Trent City Council, Derbyshire County Council and Centro (the West Midlands Integrated Transport Authority) - as their areas have considerable influence on Staffordshire's travel patterns and vice versa. The statements will highlight issues of common interest and areas of joint working.

Alongside this Plan, we have also published an Implementation Plan. It describes how the necessary cuts to public sector spending have resulted in reductions to both local authority and local transport funding. This means that we will not be able to fund all desirable activities and decisions will need to be taken about where to focus limited resources and trade-offs will have to be made. We may no longer continue to deliver improvements in all areas of local transport provision and maintaining some service levels may be difficult.

Developing the LTP

The diagram on the next page sets out the process we adopted in developing the LTP. It shows how we got from our aspirations for transport provision to activities entering the funding programme. Each step is described in more detail in Appendix B.

The LTP's Six Step Development Process

Analysis of Issues and Opportunities
Vision and Objective Setting
Challenge Setting
Option Generation
Option Appraisal
Scheme Generation and Prioritisation

Strategy Plan
Implementation Plan

Stakeholders and members of the public have been consulted during the development of the Strategy Plan, providing local representatives with the opportunity to influence the LTP and helping to build wider ownership. A summary of the engagement exercises undertaken and a list of the consultees is found in Appendix C.

Evidence from a range of documents has been drawn upon to ensure that the Strategy Plan is consistent with, and supports, wider objectives. Whilst this includes national transport objectives, it also includes local objectives contained in the County Council's Strategic Plan and Staffordshire's Sustainable Community Strategy. Further information about the policy context within which the Strategy Plan has been developed is found in Appendix D.

The Strategy Plan has been developed in parallel with Staffordshire's Local Economic Assessment (LEA) and reflects many of the economic issues identified within it. The Strategy Plan has also been discussed by the Stoke-on-Trent and Staffordshire Local Enterprise Partnership (LEP) Board. The LEP is a partnership between business, the public sector, higher and further education, community enterprises and others, to deliver economic success across Stoke-on-Trent and Staffordshire.

Setting the LTP in Context

Staffordshire is a diverse county situated near the geographical centre of England and has the largest population of all the shire counties in the West Midlands[2]. It is a county of contrasts, stretching from the fringes of the West Midlands conurbation in the south to the uplands of the Peak District National Park in the north; it shares borders with 11 other strategic authorities[3] and has a sphere of influence that extends into the East Midlands and North West regions. In the south of the county the economies of the Black Country and Birmingham exert a strong influence on travel to work patterns, so too do the economies of Stoke-on-Trent, Cheshire and Derbyshire in the north and east of the county. Conversely, Staffordshire influences travel to work patterns in these areas, with 16% of the county's workforce living outside of the county.

Staffordshire and Surrounding Areas
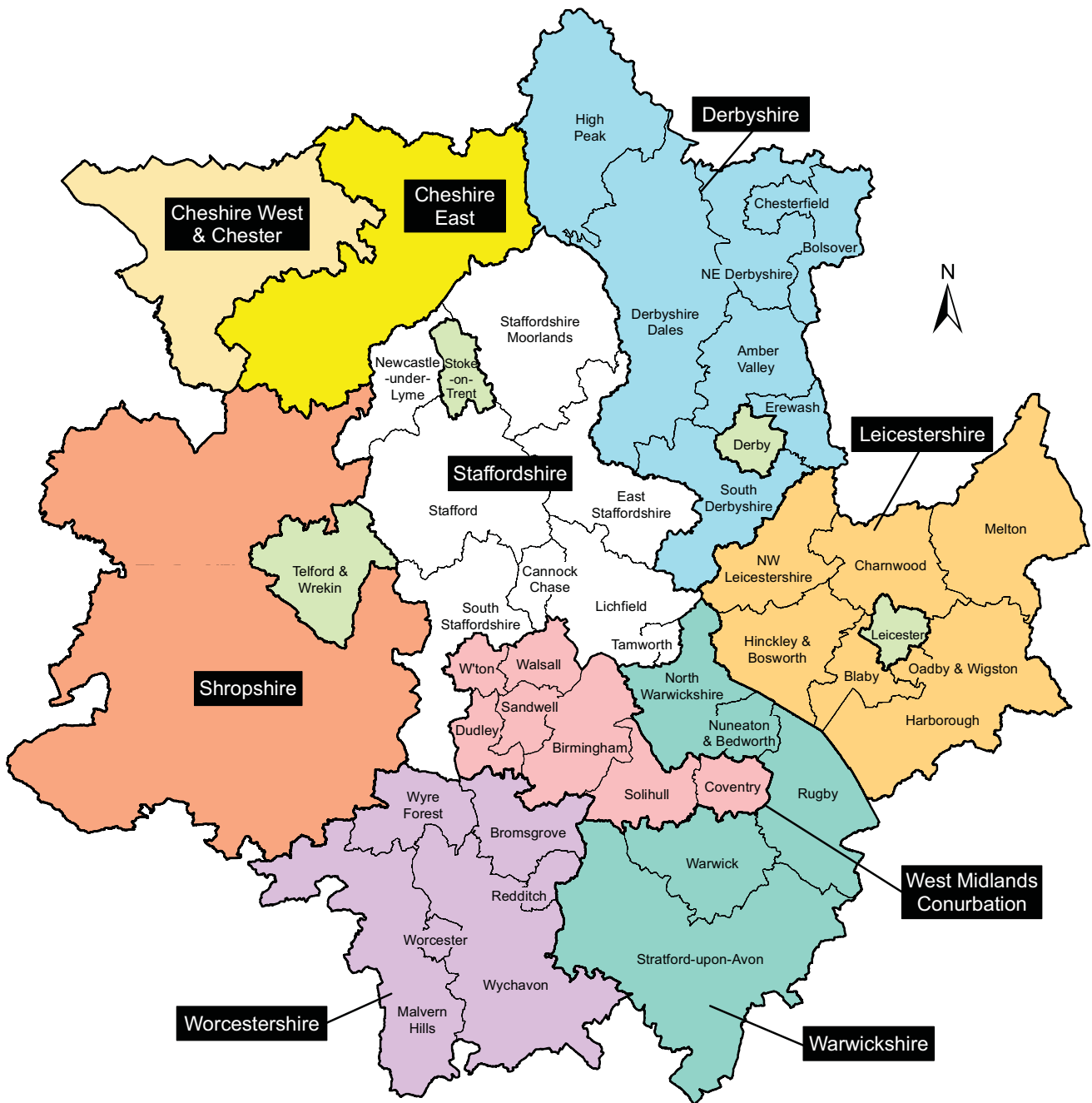
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There is no single dominant town in Staffordshire that acts as the county's focal point. Instead the county has a number of large self-contained settlements, market towns, villages and small dispersed settlements.

The county's geographical location and excellent connectivity has contributed towards many inward investment successes over recent years[4]. It is well connected to the national (and international) road and rail network:

- The West Coast Mainline runs north-south, providing frequent connections to London, Birmingham, Manchester and Liverpool.

3

- The M6 Motorway runs through the county and is one of the major arterial roads running along the backbone of the UK.

- Five international airports are within a two-hour road journey[5].

- Many of the country's major sea ports are within a four-hour road journey[6].

For the majority of time, Staffordshire's roads run smoothly and public satisfaction with traffic levels mirrors this[7]. However, on certain sections of road during peak travel times congestion can occur. Tackling these roads will be crucial if the county is to take full advantage of its location and good connectivity. It is recognised that roads and the transport network that runs on it, is fundamental to improving Staffordshire's economic prosperity and this will be the main priority of this LTP.

Accessibility levels within the county and levels of public satisfaction with the ease of access to key services are both high[8]. This is due in part to the high levels of car ownership (and use) and due to two-thirds of residents living within 350m of a bus stop which has a better than half-hourly weekday service (8am-6pm)[9]. However, there remains a significant number of residents (and visitors) who experience difficulty accessing services. Making the transport network easier to use and places easier to get to will help bring about a fairer society and it is crucial that this is progressed.

Compared to similar counties, Staffordshire's roads are amongst the safest. Over the last 10 years, the number and severity of road traffic collisions has fallen significantly due to a combination of safer vehicles, better road safety enforcement and education, and targeted engineering schemes. With the number and severity of road traffic collisions in the county standing at a relatively low level, improving road safety further is an ambitious (yet realistic) challenge.

Emissions from transport are one of the main sources of gases that cause climate change and as such, transport's role in reducing the overall greenhouse gas emissions should not be under-estimated. Transport infrastructure and operations will need to adapt so that they can cope with the consequences of climate change. Highway users will be susceptible to flooding and heatwaves,

which are all predicted to increase in frequency in the future. Poor air quality, resulting from transport emissions, whilst not widespread in the county, will also need addressing.

Transport has the potential to both positively and negatively impact on individuals and the environment. A Health Impact Assessment (Appendix E), an Equality Impact Assessment (Appendix F), a Strategic Environmental Assessment (Appendix G) and a Habitats Regulations Assessment (Appendix H) have all been developed alongside this Strategy Plan. They have sought to ensure that the LTP's objectives and policies do not directly or indirectly discriminate against or harm any particular group or environment. Any negative consequences have been removed or minimised from the Strategy Plan and any positive consequences have been maximised. Transport's impact on people's quality of life and the environment are of particular importance within this LTP.

The condition of the highway network underpins all the above - it has the ability to promote economic success, improve access and health, create safe and attractive environments, and enhance quality of life - and we recognise the economic and social importance of well maintained highways to local communities and businesses. Over the last 10 years, the condition of Staffordshire's highway network has improved significantly and is in a better state of repair than many of the networks found in comparative local transport authority areas. However, maintaining this standard will be a challenge.

Staffordshire, like many other areas, is expected to see considerable change in the future. For example, the county's population is projected to increase by 13% (to 932,700) by 2031 and the proportion of people aged over 65 years is projected to increase by 76% (104,700)[10]. To support these changes, it is likely that additional and in some cases new services and infrastructure will need to be planned, not least the construction of 55,000 new homes by 2026 as set out in the West Midlands Regional Spatial Strategy (Phase 2 Revision)[11].

Furthermore, there are increasing concerns regarding the potential impact of 'peak oil'. Peak oil does not mean that oil will run out but rather that its production will begin to decline. The International Energy Agency - the

official group which provides information on oil supplies and other energy matters - has indicated that peak oil will be reached by 2020. This is set against increasing demand for oil in the developing world with thriving economies such as China and India quickly becoming large oil consumers; and increasing conflict in some oil producing nations resulting in supply volatility. Spikes in commodity prices, economic downturns and even temporary fuel shortages are all possible future scenarios of peak oil. It is uncertain what impact any of these may have on demand for transport because the role of transport in our everyday lives has changed considerably over the last few decades.

What We Want to Achieve

Our vision for transport provision in the county is:

A transport system that supports Staffordshire's economy, and safely and conveniently connects people and services within Staffordshire and beyond; it provides opportunities for services and jobs to be accessed in a sustainable way, and makes sure that any adverse effect of transport on Staffordshire's rich environment and on residents' quality of life is minimised.

To achieve this vision, seven countywide objectives and 17 challenges have been identified. The objectives and challenges are inter-related. In delivering them, care will be taken and compromises made to ensure that measures to meet one objective do not undermine efforts to meet another.

Whilst all of the objectives are important, the three main ones are:

1. Supporting growth and regeneration.

2. Maintaining the highway network.

3. Making transport easier to use and places easier to get to.

Some objectives are more important in certain parts of the county than in others and this will be recognised in the District Integrated Transport Strategies.

Countywide Objectives and Challenges

Objectives	Challenges
Supporting Growth and Regeneration	Provide opportunities for residents to access jobs, training and education.
	Help businesses access suppliers, markets and a workforce.
	Enable economic growth without causing congestion.
Maintaining the Highway Network	Maintain the current condition of the highway network and its infrastructure.
	Keep the highway safe and serviceable whilst achieving value for money.
Making Transport Easier to Use and Places Easier to Get to	Reduce social exclusion faced by residents.
	Make 'access for all' a key consideration when planning new housing and employment sites, services and facilities.
Improving Safety and Security	Improve the skills of all road users.
	Improve the current road safety record.
	Tackle crime, fear of crime, and anti-social behaviour on the highway network.
	Improve the resilience of the highway network to events that pose safety threats to highway users.
Reducing Road Transport Emissions and Their Effects on the Highway Network	Reduce emissions from road transport.
	Respond to current and future climatic conditions.
Improving Health and Quality of Life	Encourage active travel.
	Maximise opportunities for transport to positively contribute towards people's quality of life.
Respecting the Environment	Minimise the impact of transport on the environment.
	Enhance the environment through the management and maintenance of the highway network.

1 Responsibility for investment in motorways, trunk roads and the rail network lie with Government bodies such as the Highways Agency and Network Rail.

2 Staffordshire has a population of 829,000. Registrar General's Mid-Year Population Estimate, National Statistics (2008).

3 Staffordshire shares borders with Birmingham, Cheshire East, Derbyshire, Dudley, Leicestershire, Shropshire, Telford and Wrekin, Walsall, Warwickshire, Wolverhampton and Worcestershire.

4 International and national companies that have moved to the county in recent years include Bombardier and Argos (in East Staffordshire Borough), Tesco (in Lichfield District), New Look, TK Maxx and Phones 4U (in Newcastle-under Lyme Borough), Veolia Environmental Ltd, Biffa, Unilever, DHL (in Cannock Chase District) and Screwfix (in Stafford Borough).

5 The starting point is Stafford and timings have been from the AA Route Planner (May 2010). The five international airports are Birmingham (50 minutes), Manchester (1 hour 5 minutes), East Midlands (1 hour 5 minutes), Liverpool John Lennon (1 hour 18 minutes), and Luton (2 hours)

6 The starting point is Stafford and timings have been from the AA Route Planner (May 2010). The ports are Southampton, Dover, Felixstowe, and Liverpool.

7 50% of residents are satisfied with overall traffic levels and congestion, placing Staffordshire as 3rd when compared with its 10 'nearest neighbours', National Highways and Transportation Survey (2010).

8 77.5% of residents are satisfied with the ease of access to key services, National Highways and Transportation Survey (2010).

9 Accession, September 2010. Car ownership in Staffordshire stands at 81% of households - well above the national average at 73% (2001 Census), which is probably due to the rural nature of the county and the fact that many residents feel that having a car is a necessity.

10 The State of Staffordshire 2009, Staffordshire Observatory (October 2009).

11 In July 2010 the Secretary of State announced the revocation of Regional Spatial Strategies (RSS), although this decision was subject to a successful High Court Challenge in November 2010 and the RSS was reinstated. The status of the RSS is subject to change following the publication of the Localism Bill in December 2010.

Chapter 1

Supporting Growth and Regeneration

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1. Supporting Growth and Regeneration

1.1 Key Facts

- Staffordshire has excellent access to national (and international) transport networks.

- By 2026 Staffordshire is expected to see significant growth, including a population increase of over 100,000 and 55,000 new houses being built.

- Traffic congestion in the West Midlands costs each business around £20,000 a year.

1.2 Challenges

- Provide opportunities for residents to access jobs, training and education.

- Help businesses access suppliers, markets and a workforce.

- Enable economic growth without causing congestion.

1.3 Introduction

Transport is an enabler of economic activity; it can improve productivity, support extensive labour markets and allow businesses to benefit from agglomeration. However, if it is left unmanaged it can hamper economic activity. Any unreliability of the transport network represents a significant cost to the economy, as time spent in queuing traffic is not available for other activities. Unpredictable and unnecessarily long journeys add costs to business and can frustrate drivers. The Confederation of British Industry estimates that congestion costs the country's economy £20bn a year[1] and Stafford Chamber of Commerce states that traffic congestion in the region costs each business around £20,000 a year[2].

Transport plays a vital role in the economy; businesses require their workforce, customers and goods to travel with ease across the network; individuals require access to jobs and education, want a wide choice of goods in shops, and need some goods/services to be delivered direct to their homes. Transport also plays a vital role in helping to ensure that areas and residents reach their potential. For example, transport can stimulate areas of deprivation, support regeneration and tourist activity, and reduce disparities between rural and urban areas.

Local authorities have a clear mandate to promote economic well-being and take the strategic lead in working with partners to promote the general well-being of their area[3]. This is often termed 'place-shaping' and a fundamental principle underpinning 'place-shaping' is the idea that every place should have an identity and a function, and in particular an economic purpose.

1.4 Scale of the Challenge

Staffordshire's Industrial Heritage

The fallout from the county's declining industrial heritage, particularly its past reliance on coal mining, continues to influence the local economy. Over the last 10 years, employment growth has tended to be associated with the public rather than the private sector. South Staffordshire, Staffordshire Moorlands, Lichfield, East Staffordshire and Cannock Chase have all seen private sector employment growth but some of this has been in sectors that are less resilient to recession. Although some progress has been made to attract knowledge-based industries and improve the quality of new jobs in the county, educational aspirations and attainment of school leavers remains low in some parts of Staffordshire, creating a pool of unskilled people seeking low paid work.

Despite Staffordshire's geographical location and good connectivity, the local economy continues to underperform in terms of business activity and inward investment. With the notable exception of North Staffordshire[4], the county has failed to secure major regeneration funding over the past decade, probably due to the fact that it is seen as relatively affluent compared to other parts of the country. Where regeneration has occurred, it has tended to be small-scale, focusing on those areas of the county where the coal industry was once dominant. Many regeneration initiatives have involved substantial highway infrastructure projects including Towers Business Park (Rugeley), Kingswood Lakeside (Cannock) and Silverdale Business Park (Newcastle-under-Lyme).

Staffordshire's Rural Economy

Around 80% of Staffordshire's total land area is classified as rural and 25% of its population lives in a rural area. Whilst many people living in rural areas travel to towns for employment and key services, it is vital that rural communities remain vibrant and prosperous - offering a choice of local jobs and services. Transport can make a big difference to the quality of life for rural residents, especially those living in the 12% of rural households that do not own a car. Many rural residents say that they are reliant on a car for most of their journeys and the West Midlands region is the worst region in England in terms of car dependency[5].

An important part of Staffordshire's rural economy and one of the county's growth industries is tourism and leisure, which generates over £900m per annum[6]. Staffordshire attracts over 20m visitors per annum and has a number of well-known visitor attractions, including Alton Towers, Drayton Manor Park, Cannock Chase Area of Outstanding Natural Beauty, and the Peak District National Park. With many of the county's visitor attractions located in rural areas, there is often no alternative but for visitors to travel by car.

Box 1.1: Visitors Voice Their Issues

During June and July 2010 we asked visitors to the county about their views of its transport network. The main findings were:

- 80% of respondents travelled to the county by car.

- 68% of respondents travelled mainly by car whilst in the county.

- The main reason for travelling by car whilst in the county was convenience (30%).

- Of respondents who expressed an opinion on travelling by car within the county, 94% said they had a pleasant experience and 3.5% said they had experienced difficulties, including poor signage and travel information.

At peak times of the year, such as during school summer holidays, visitor and local traffic combine to create congestion in the vicinity of some visitor attractions. This is a particular problem in areas within the Peak District National Park, around Alton Towers, Drayton Manor Park, and near to Weston Park during the 'V' Festival. In some instances, visitors and the transport they use can threaten to undermine the attraction (see Box 7.1 in Chapter 7 'Respecting the Environment').

Predicted Growth

Staffordshire is expected to experience significant growth as outlined in Box 1.2. This growth is likely to occur within and around existing settlements, and will lead to an increased demand for travel. This growth must be managed, using both 'hard' and 'soft' measures, in order that it can be integrated into the existing transport network without unduly compromising the network's effectiveness or residents' quality of life.

Box 1.2: Predicted Growth in Staffordshire to 2026

Evidence collected to inform the preparation of the West Midlands Regional Spatial Strategy (Phase 2 Revision) suggested that:

- Between 2006 and 2026 some 54,900 houses will be built.

- A five-year 'rolling reservoir' of 207ha of employment land should always be available, with indicative long-term requirements of some 621ha of employment land.

- 255,000m^2 of additional retail floorspace and 225,000m^2 of additional office floorspace should be planned for over the 2006-26 period.

- Burton upon Trent and Stafford have the greatest potential to accept significant sustainable growth in housing and employment, and the relevant planning authorities are committed to this.

Connectivity

Located near the geographical centre of the country, Staffordshire has excellent transport links. Appendix I provides an overview of the county's external and internal connectivity relating to the strategic and local road networks, public transport, rail (passenger and freight), sea ports and airports.

Both Network Rail and the Highways Agency have business plans in place to further improve connectivity on their networks, and in March 2010 the then Government announced plans to improve national connectivity by building a new high-speed rail line. The proposed line, known as High Speed 2 (see Box 1.3), will run between London and Birmingham with a future extension to northern England and Scotland.

Box 1.3: High Speed 2

Whilst some considerable time in the future and with no new station proposed in Staffordshire, High Speed 2 is claimed to have potential medium to long-term benefits to the county's economy[7]. It is claimed that High Speed 2 will free up capacity on the West Coast Mainline, resulting in the opportunity to operate more frequent local rail services along the Trent Valley line through Tamworth and Lichfield to Stafford. On the other hand, there will undoubtedly be significant environmental impacts. At its meeting on 17th March 2011, the County Council resolved to oppose the High Speed 2 proposals.

Accessibility

High levels of car ownership and car use in Staffordshire mean that most people can get to where they want to go, when they want to go. Indeed, 78% of residents are satisfied with the ease of access to key services, 69% of residents with a disability and 79% of residents living in non-car households are also satisfied with the ease of access to key services[8]. However, as described in Chapter 3 'Making Transport Easier to Use and Places Easier to Get to' and Appendix J, levels of accessibility vary across the county.

Congestion

Despite 19% of the total mileage travelled in the West Midlands occurring in Staffordshire - the highest of any local authority in the region - traffic tends to flow smoothly for the vast majority of the day on all the county's roads. However, during peak travel periods, some roads get close to capacity affecting journey times; many road users term this 'congestion'. Half of Staffordshire's residents are satisfied with traffic levels (and congestion), placing Staffordshire as third when compared with its 10 'nearest neighbours'[9].

Some of Staffordshire's towns experience localised traffic congestion during weekday peak periods and on Saturdays in some locations. As part of the Local Development Framework planning process, the impact of future growth (see Box 1.2) has been assessed in a number of towns. This has shown that a significant level of behavioural change is required in order to accommodate the expected growth and avoid any detrimental impact. Reducing the need to travel by facilitating activities such as home-working and increasing the use of smarter travel modes are key ways to achieve this.

Congestion in Staffordshire is not just caused by the sheer volume of traffic wanting to use a section of road at the same time; it is also caused by events on the network. The majority of events (approximately 50,000 per year) are planned and include utility works, highway maintenance and ad hoc events such as farmers' markets, arts and music festivals, road and cycling races. Around 2,300 events per year are unplanned emergency works undertaken by ourselves or utility companies and about 350 events are unplanned incidents, including vehicle breakdowns, road traffic collisions and obstructions/hazards on the highway. To a lesser extent, on-street parking, deliveries and abnormal loads in more critical locations such as one-way streets and town centres can also cause congestion.

Events on Staffordshire's strategic road network can also have an impact on the local road network. Events on the M6 Motorway affect traffic flows on the A34 and Stafford (see Box 1.4), and events on the A38 can affect traffic flows in Burton upon Trent.

Box 1.4: Events on the M6 Motorway

As events on the M6 occur regularly and can have an impact on the flow of traffic in and around Stafford, we have worked closely with the Highways Agency to identify and develop a series of 'Emergency Tactical Diversion' (ETD) routes. These provide a junction to junction alternative route when a major incident occurs. ETDs are brought into operation by the National Traffic Control Centre when the need arises. Discussions are ongoing about a rationale for the utilisation of the M6 Toll as an ETD.

1.5 Strategy

The LTP is limited in the extent to which it can promote, shape and enable economic well-being within the county. Areas which we, as the local transport authority, can influence are:

- Stimulating areas of regeneration and deprivation.

- Supporting rural communities.

- Facilitating tourist activity.

- Maximising the reliable operation of the existing road network.

- Minimising the impact of events on traffic movement.

- Managing network capacity.

- Keeping the highway in good state of repair.

- Improving the efficiency of freight distribution.

Supporting growth and regeneration will contribute towards wider local objectives around health, air quality, education, housing, social inclusion and quality of life.

Stimulating Areas of Regeneration and Deprivation

Transport can stimulate regeneration in a number of ways; it can provide access to education, training and jobs (see Box 1.5); help create economically vibrant and attractive places; open up development sites; lever external investment; and support schemes that 'add value' such as parks, play areas and urban renewal.

Investment in schemes to improve the public realm have been shown to increase high street turnover by between 5% and 15%[10], and people who travel to the shops on foot, by cycle or by public transport spend as much, if not more than those who travel by car[11] (see Box 1.6).

Box 1.5: Keele University Science Park

We have delivered a number of schemes on behalf of Keele University to support phase 3 of their science park development. The science park will create around 1,250 jobs, be the location for approximately 40 high quality businesses and build on the successful growth of the medical technologies sector in North Staffordshire. To ensure the highway network can accommodate the significant growth in traffic expected from the science park development, we have built additional highway capacity at Gallowstree Roundabout, which is the gateway to the science park.

Box 1.6: Revitalisation of Uttoxeter Town Centre

Over £2m has been secured from the County Council, East Staffordshire Borough Council, Advantage West Midlands and the private sector to improve the viability and vitality of Uttoxeter. Projects include the development of the former cattle market, now known as Carter's Square, improvements to shop fronts, and the pedestrianisation of the High Street. This investment supported the Shop Uttoxeter campaign which aimed to promote the town's great range of shops and services.

Policy 1.1:

We will stimulate regeneration and support areas of deprivation.

This will be achieved by:

- Working with the business community to identify transport issues which are hampering the economy.

- Ensuring the transport network - its management, maintenance and development - contributes to the attractiveness and vibrancy of towns and villages.

- Supporting new development that includes or is located in areas with good public transport links, well connected to walking and cycling networks and facilities, and where the demand of 'place' and 'movement' is considered together.

- Ensuring that opportunities are maximised for transport investment to be used to lever external investment, especially where it attracts new knowledge-based, service-led industries.

- Supporting schemes that 'add value' to the transport network, particularly those that promote its 'place' role.

- Continuing to provide tailored transport services and travel incentives to those for whom access is a barrier to jobs and education.

- Maintaining and where appropriate, expanding Staffordshire's public transport network where it is deemed socially important or where it provides access to employment and/or training.

- Lobbying Government, Network Rail and train operating companies for signalling upgrades and route electrification.

Supporting Rural Communities

Staffordshire's market towns and larger villages are the foci for the local economy; they are the hubs for local jobs, services, shops and education. As such, their prosperity partly relies on the ability of their residents and those living within their hinterlands to reach them (see Box 1.7).

Box 1.7: Overview and Scrutiny Policy Advisory Group - Rural Access

In summer 2010 the Corporate Review Committee decided to appoint a Policy Advisory Group (PAG) to look at rural transport - its impact on access to key services and how it could be improved within the context of a limited budget.

The PAG made six recommendations, including that subsidised transport schemes should primarily be about:

- Reducing/preventing social exclusion of identified vulnerable groups.

- Ensuring access to essential services for vulnerable people.

- Ensuring access for young people to opportunities and leisure activities.

- Ensuring access to employment opportunities to support growth.

It was concluded that any rural transport service supported should deliver one or more of these priorities and in assessing one scheme against another, value for money must be an important consideration.

Convenient, reliable, affordable, accessible and safe transport to the county's market towns and villages is a significant problem, especially for those living in non-car households, the young (see Box 1.8) and those living with a temporary or permanent disability.

Box 1.8: Wheels 2 Work

Staffordshire's Wheels 2 Work scheme helps people (especially the young) who cannot access employment or training because of a lack of public or private transport. The scheme offers individuals the loan of a moped or bicycle (at a nominal fee), car sharing advice, personal travel plans or travel vouchers. Clients are encouraged to begin a regular savings plan to help them secure a long-term solution to their transport needs after help from the Wheels 2 Work scheme ceases (after six months).

Policy 1.2:

We will endeavour to support rural communities.

This will be achieved by:

- Ensuring the transport network - its management, maintenance and development - contributes to the attractiveness and vibrancy of towns and villages (where appropriate).

- Maintaining and where appropriate, expanding Staffordshire's public transport network where it is deemed economically and socially important. This may include tailored services and travel incentives.

For further measures on how we plan to support rural communities, please see Chapter 3 'Making Transport Easier to Use and Places Easier to Get to'.

Facilitating Tourist Activity

Whilst it is vital that transport supports tourism, it is equally important that the impact of visitor traffic on local communities and residents' quality of life is minimised. Damage to visitor attractions of natural or historic value, which has been caused by movements of visitors (by vehicle or on foot) must also be addressed.

Policy 1.3:

We will facilitate sustainable access (including public transport, walking and cycling) to tourist attractions.

This will be achieved by:

- Working with the tourist industry to manage visitor traffic.

- Influencing visitors' choices and travel behaviour in getting to and around the county.

- Supporting visitor attractions that want to develop travel plans to increase the proportion of their visitors and employees travelling by smarter travel modes.

For measures on how we plan to reduce the impact of traffic on visitor attractions, please see Chapter 7 'Respecting the Environment'.

Maximising the Reliable Operation of the Existing Road Network

Journeys that can take 30 minutes one day and 40 minutes the next are frustrating and do not allow individuals and businesses to plan their journeys with any certainty. Smoothing traffic flows will help to reduce this frustration and improve journey time reliability for all road users who rely on motorised transport, including bus users. There are many measures that can be adopted to help smooth traffic flow and improve journey time reliability such as Urban Traffic Control, which is described in Box 1.9.

On school days, peak hour traffic flows are significantly higher than during holiday periods. This is due to a combination of factors, including fewer journeys to educational establishments and more people taking time off employment to spend time with their families. Data shows that there are around 20% less vehicles on Staffordshire's roads during school holidays.

Box 1.9: Urban Traffic Control

We have a dynamic traffic control system, known as Urban Traffic Control (UTC), which manages traffic signals in six locations across the county[12]. Here, traffic flows are high and the traffic signals are relatively close together, which lends itself to the co-ordination of traffic moving in platoons. This leads to less queuing traffic and smoother traffic flows. UTC is used to manage the available road capacity in real-time and respond to events on the network which have the potential to cause disruption.

Policy 1.4:

We will maximise the reliable operation of the existing road network.

This will be achieved by:

- Completing a Road Hierarchy Review to ensure the county's roads reflect their existing function, which will provide a coherent and consistent framework for the management of the road network, including an appropriate speed management policy (Appendix K).

- Using Urban Traffic Control to balance the needs of, and minimise delays to, road users including pedestrians and cyclists. Where appropriate, it will be used to encourage the use of the primary road network and to benefit public transport movements.

- Proactively tackling illegal parking (see Box 1.10).

- Using and enforcing Traffic Regulation Orders to maintain traffic flows including where delays may be otherwise caused. These will be considered on safety grounds, where commerce is seriously affected by parked vehicles or where the restriction is essential to provide the maximum benefit from capital investment.

- Returning the network to a normal and safe state of operation as soon as possible after an event, especially on traffic sensitive roads.

- Enforcing moving traffic offences where it causes congestion, environmental intrusion or it is detrimental to road safety.

- Promoting the delivery and further development of travel plans.

- Encouraging walking, cycling and public transport use, particularly on congested corridors.

For further measures on how we plan to maximise the reliable operation of the existing road network, please see Chapter 2 'Maintaining the Highway Network', Chapter 4 'Improving Safety and Security', Chapter 5 'Reducing Road Transport Emissions and Their Effects on the Highway Network' and Appendix K.

Minimising the Impact of Events on Traffic Movement

The bulk of planned events on the highway network are scheduled utility works and highway maintenance. Half (50%) of residents are satisfied with how roadworks are managed, ranking Staffordshire as fourth when compared to its 10 'nearest neighbours'[13].

There will always be events on the network that cannot be planned for in advance. However, how these are managed has a direct impact on the level of disruption and highway safety. We are under a duty to bring about the efficient operation of the road network by taking steps to manage potential causes of disruption and to take appropriate action when events occur to minimise their impact[14].

Less than half (45%) of residents are satisfied with how illegal on-street parking is being tackled in the county and three-fifths (60%) are satisfied with how illegally parked cars are being dealt with[15]. Box 1.10 describes how we are working in partnership with local planning authorities to tackle illegal parking.

Box 1.10: Clear Streets

We recognise that inappropriate vehicle parking and provision for loading and unloading is important in supporting local economies and improving the experience of visitors. Clear Streets (also known as Civil Parking Enforcement) is an initiative that allows us, in partnership with local planning authorities, to use our legal powers to enforce parking and loading regulations across Staffordshire. It has been operating for two-three years and now covers the whole of Staffordshire. A trend of reducing ticketing has been identified, which in part is undoubtedly due to a culture of better parking discipline. The control of parking, especially at critical locations, goes some way to maximising road capacity and tackling congestion 'hot spots'.

Policy 1.5:

We will minimise the impact of events on traffic movement.

This will be achieved by:

- Increasing collaboration with and between utility companies and ourselves, to ensure works are better co-ordinated.
- Developing incentives for works promoters to apply best practice (such as weekend working) and reduce the amount of time spent on the highway, especially on traffic sensitive roads. This may include initiatives such as a Lane Rental Scheme, a Permit Scheme or other control mechanisms appropriate to the problem.
- Ensuring works promoters give the correct notification through the introduction of a Fixed Penalty Notice Scheme.
- Raising public awareness of current and planned road closures, roadworks, obstructions, and other events using a variety of media.
- Liaising closely with local planning authorities on the granting of temporary road closures.
- Encouraging hauliers to inform us of their plans to move abnormal loads through the county to enable us to provide advice on routeing and timing.
- Encouraging event organisers to give advance warning of any event that may cause disruption to the network so that we can plan an appropriate response.
- Encouraging visitors to large, planned events in the county (such as the 'V' Festival) to travel by public transport (bus and rail).
- Ensuring routes near to major events are free from planned roadworks to avoid any unnecessary and additional inconvenience to road users.
- Returning the network to a normal and safe state of operation as soon as possible after an event, especially on traffic sensitive roads.
- Improving information about when and how to travel throughout the duration of an event.
- Identifying and eliminating potential causes of unplanned disruption, focusing initially on traffic sensitive roads.
- Establishing diversionary routes as soon as possible (whilst taking into account the needs of local communities, road users and the environment), where roads have been closed as the result of an event, together with appropriate signing and publicity.

For further measures on how we plan to minimise the impact of events on traffic movement, please see Appendix K.

Managing Network Capacity

Whilst we will endeavour to make more efficient use of the existing road network rather than build new roads, we recognise that there will continue to be requests for additional highway capacity. The provision of additional capacity will be considered if other measures, such as promoting travel by smarter travel modes, are found to be insufficient (see Box 1.11).

Box 1.11: Stafford Growth Point

The previous Government agreed with the relevant local authorities that Stafford should be seen as a 'Growth Point', with plans for significant investment in employment, retail and housing within the town. Despite the revocation of the Regional Spatial Strategy by the current coalition Government, the County Council and Stafford Borough Council remain committed to growth in the town. A SATURN traffic model[16] has been used to assess the impact of traffic that will be generated by the planned growth up to 2026, which is in line with Stafford Borough Council's Local Development Framework time period.

The assessment revealed that without the provision of additional highway capacity, as part of a wider sustainable transport strategy, the forecast travel demand associated with the town's predicted growth will lead to congestion, especially during weekday peak periods along routes within the west of Stafford and the town centre. In order to mitigate this, we are planning a range of sustainable transport measures, together with the construction of a new road. The road will connect the A518 Newport Road to the A34 Foregate Street via Doxey Road. It will provide the means by which bus services could access new development proposals at Castlefields and Burleyfields, it will increase accessibility for cyclists and pedestrians, and it will improve access (by all modes) to the town's rail station. Despite the Government's recent decision not to fund the proposed road within the current spending review period, we continue to support the scheme and are considering alternative funding opportunities to secure its delivery.

Policy 1.6:

We will make best use of our roads to increase capacity before considering building new roads.

New road building will be considered where it:

- Facilitates new development/regeneration.
- Increases capacity at specific congested locations.
- Improves local safety.
- Enhances conditions for local residents, pedestrians, cyclists, public transport users and businesses.
- Takes traffic away from sensitive environmental locations.

Keeping the Highway in Good State of Repair

Staffordshire's highway network and the wider public realm are fundamental to the economic, social and environmental well-being of the county, helping to shape the character and quality of local areas. It is essential that our largest and most visible asset, which is used daily by the majority of residents, is kept in a good state of repair.

Policy 1.7:

We will keep the highway in a good state of repair whilst achieving value for money.

This will be achieved through policies contained in Chapter 2 'Maintaining the Highway Network'.

Improving the Efficiency of Freight Distribution

The movement of goods across and within the county is vital for Staffordshire's economy to prosper. On local roads, freight accounts for between 5% and 10% of all traffic and is the second largest user by mode, behind private motor cars. Between 2006 and 2008, 214,000,000t of freight either originated or was destined for Staffordshire[17]. Given the volume of freight movement in the county, attempting to improve operations will have benefits for business (in terms of efficiency savings) and residents (in terms of quality of life).

Policy 1.8:

We will improve the efficiency of freight distribution.

This will be achieved through the actions set out in the Staffordshire Freight Strategy (Appendix L).

1.6 Anticipated Outputs and Outcomes

Table 1.1 shows the anticipated benefits of this Strategy when combined with the delivery of the entire LTP Strategy Plan.

Table 1.1: Supporting Growth and Regeneration

Challenges	Policies	Outputs	Indicators	Targets
Provide opportunities for residents to access jobs, training and education	Policy 1.1: We will stimulate regeneration and support areas of deprivation	More reliable journey times and smoother traffic flows in urban areas during peak travel periods	Local congestion in Stafford, Burton upon Trent and Newcastle-under-Lyme	Improve journey time reliability in Stafford from a 2008/09 baseline
Help businesses access suppliers, markets and a workforce	Policy 1.2: We will endeavour to support rural communities	A more efficient freight industry	Public satisfaction with traffic levels	Improve journey time reliability in Burton upon Trent from a 2008/09 baseline
Enable economic growth without causing congestion	Policy 1.3: We will facilitate sustainable access (including public transport, walking and cycling) to tourist attractions	Less disruption to highway users resulting from events on the highway network	Public satisfaction with traffic management	Improve journey time reliability in Newcastle-under-Lyme from a 2008/09 baseline
	Policy 1.4: We will maximise the reliable operation of the existing road network	High trip generating developments located in areas with good public transport capacity and accessibility	Public satisfaction with management of roadworks	Increase the overall employment rate from a 2009 baseline
	Policy 1.5: We will minimise the impact of events on traffic movement	More people walking, cycling and using public transport to access tourist attractions	Overall employment rate	
	Policy 1.6: We will make best use of our roads to increase capacity before considering building new roads		Young people 'Not in Employment, Education or Training' (NEET)	
	Policy 1.7: We will keep the highway in a good state of repair whilst achieving value for money			
	Policy 1.8: We will improve the efficiency of freight distribution			

1 This calculation is based upon research undertaken in France (Bouladon, 1991; and Quinet, 1994), which suggested that congestion costs were 3.2% of GDP in the UK. Research by Newbery (1995) tended to support this figure with an estimate of £19.1bn.

2 Stafford Chamber Of Commerce, Business Manifesto (2008-2016).

3 The Sustainable Communities Act (2007), Local Government Act (2000), and the 'Review of Sub-National Economic Development and Regeneration' (2007, HM Treasury, Department of Communities and Local Government (CLG), BERR).

4 The North Staffordshire Regeneration Zone encompasses Stoke-on-Trent and the urban parts of Newcastle-under-Lyme.

5 The Car Dependency Scorecard: A look at car dependency and what is being done around the country to reduce it, Campaign for Better Transport, (September 2009). The West Midlands scored 43% or E-.

6 Staffordshire Tourism Economic Impact Assessment 2008, the Research Solution (2010).

7 High Speed Rail, Department for Transport, (March 2010). www.dft.gov.uk/pgr/rail/pi/highspeedrail/commandpaper/pdf/cmdpaper.pdf

8 The National Highways and Transport Public Satisfaction Survey (2010).

9 The National Highways and Transport Public Satisfaction Survey (2010).

10 London Development Agency (2010).

11 Transport for London, (2002); Transport for London, (2009); Commission for Integrated Transport, (2006); Geeson and Grohmann, (2002).

12 Urban Traffic Controls is in Stafford, Burton upon Trent, Newcastle-under-Lyme, Cannock, Rugeley and Weston village.

13 The National Highways and Transport Public Satisfaction Survey (2010).

14 The Traffic Management Act 2004 placed a new 'network management duty' on all local highway authorities to manage and secure the expeditious movement of traffic on the local road network and to facilitate traffic movement on other traffic authorities' road networks.

15 The National Highways and Transport Public Satisfaction Survey (2010).

16 A new Stafford Transport Model has been developed using the SATURN suite of computer programs. A transport model is developed to replicate existing traffic patterns and conditions. When this is achieved to appropriate standards the model can be used, with confidence, as the basis for predicting future travel patterns and conditions on the road network, for any given land-use and transport scenario.

17 Department for Transport (2010).

Chapter 2

Maintaining the Highway Network

Staffordshire
Local Transport Plan 2011

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2: Maintaining the Highway Network

2.1 Key Facts

- Staffordshire has the largest total road length of any authority in the West Midlands and one of the largest in the country.

- Staffordshire's highway network is valued at £6.5bn.

- In 2010/11 the County Council spent over £60m on highway maintenance, which equates to 81% of its total highway spend and 61% of its total transport budget.

2.2 Challenges

- Maintain the current condition of the highway network and its infrastructure.

- Keep the highway safe and serviceable whilst achieving value for money.

2.3 Introduction

Responsibility for managing roads in England (outside of London) is shared between the Highways Agency and local transport authorities. The Highways Agency manages the strategic road network, which includes motorways and trunk roads. Local transport authorities manage the local road network, which includes the majority of 'A' roads, all 'B', 'C' and unclassified roads, and most on and off-road foot and cycleways. They are also responsible for most assets (physical components) on the local road network such as bridges, street lighting, roadside technology and signs, drainage and landscaping. There are other types of equipment that lie on or beneath the highway (such as pipes and cables), which are owned and maintained by third parties. Maintenance of these can bring about short-term traffic disruption and long-term reductions in the lifespan of the highway as any works on the highway will weaken its structure. There are a number of other organisations that are responsible for the maintenance of elements of Staffordshire's highway network, including Network Rail, British Waterways and Midlands Expressway Limited[1].

The highway network, including the public realm, is used daily by the majority of people and it helps to shape the character and quality of places, making an important contribution to regeneration, safety and quality of life. The economic and social importance of well maintained highways to local communities and businesses should not be underestimated.

All local transport authorities have a duty of care to maintain their highway and associated assets in a state that is 'fit for purpose' and in so doing they need robust systems in place for inspections and repairs so that an appropriate defence against any claim can be established[2]. This is increasingly important; over the last 10 years, the number of claims received by local transport authorities from individuals who have received an injury or damage to their property as a result of an incident on the highway has increased by 63%[3].

2.4 Scale of the Challenge

Staffordshire's Transport Network

Staffordshire's local highway network is the largest of any authority in the West Midlands and one of the largest in the country[4]. It comprises:

- Over 5,800km of road ('A', 'B', 'C' and unclassified).

- Over 4,000km of on-road footway.

- Over 4,400km of public rights of way (including public footpaths, bridleways and byways).

- Over 260km of cycle lane (excluding over 80km of National Cycle Network and 185km of cycleable canal towpath).

The highway assets that are within our control include:

- Over 91,000 street lights and over 15,000 illuminated signs (managed via a Private Finance Initiative).

- Over 1,000 road bridges.

- Over 2,200,000m^2 of urban verges.

- Over 5,700km of rural verges.

- Over 175,000 road gullies.

- Over 160 signal controlled junctions.

- Over 370 signal controlled crossings.

- Almost 100 vehicle actuated signs.

The Condition of Staffordshire's Highway Network

Over the period of the last LTP (2006/07 to 2010/11), we set ourselves challenging targets to:

- Reduce the amount of principal road network where structural maintenance should be considered from a 2005/06 baseline of 6.2% to 5.2% by the end of 2010/11.

- Reduce the amount of non-principal classified road network where structural maintenance should be considered from a 2006/07 baseline of 10% to 7% by the end of 2010/11.

- Reduce the amount of unclassified road network where structural maintenance should be considered from a 2003/04 baseline of 27.79% to 23% by 2010/11. A more ambitious target was established in 2007/08 of achieving 12% by the end of 2010/11.

- Reduce the level of surface footway where structural maintenance should be considered to 19% by 2010/11 from a 2003/04 baseline of 24%.

In 2007/08 we met and exceeded the targets for principal and non-principal roads, and in 2006/07 we met and exceeded the target for footways. We also met and exceeded both the original and stretched target for unclassified roads in 2006/07 and 2008/09 respectively (see Graph 2.1). However, despite these achievements, only 44% of residents are satisfied with the state of the county's highways, placing Staffordshire as fifth when compared to its 10 'nearest neighbours'[5]. The condition

Graph 2.1: Percentage of the Highway Network Requiring Imminent Maintenance, 2005 to 2010
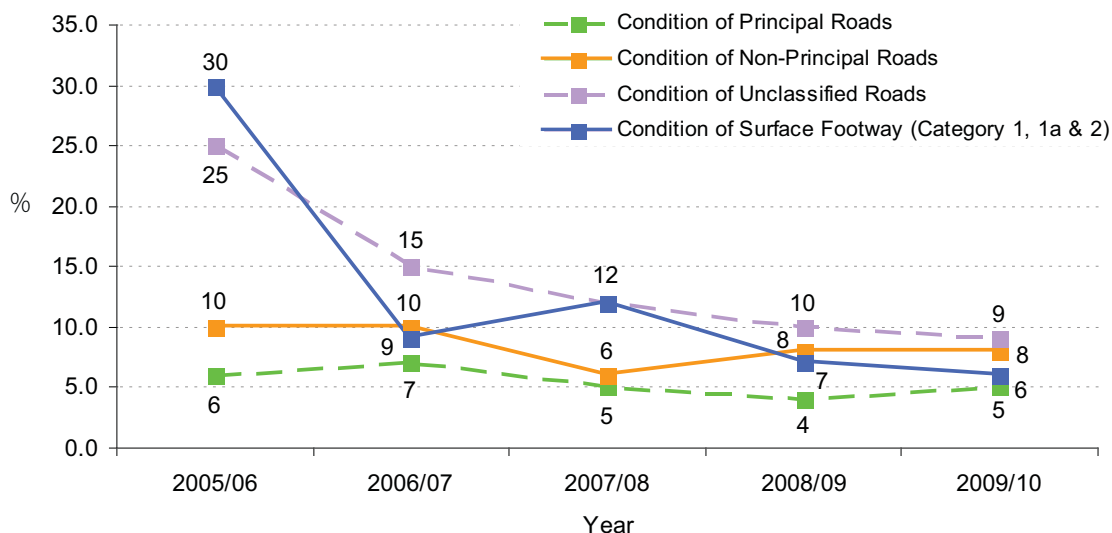
of Staffordshire's road bridges is classed as 'fair', with an average score of 88 out of 100 and the condition of their 'critical components' is 'poor' with a score of 79 out of 100[6].

The condition of street lighting is good and improving. In May 2003 we entered into a 25-year Private Finance Initiative (PFI) with ABB (now E.ON SES). It aims to replace older, outdated lighting apparatus, thereby improving energy efficiency and creating efficiency savings and CO_2 reductions[7]. To date, over 26,000 lighting columns, 1,800 illuminated signs and 240 illuminated bollards have either been replaced or installed. At least 98% of the county's street lighting stock is lit at any one time and there has been a 40% decrease in the average number of faults reported since the start of the PFI. Over two-thirds (69%) of residents are satisfied with street lighting, placing Staffordshire as fourth when compared to its 10 'nearest neighbours'[8].

Despite the good and improving condition of Staffordshire's highway assets, in 2009 the County Council received over 800 new property damage claims and almost 300 new personal injury claims.

Over the last three years, the Council has paid approximately £2.3m for claims where it was found to be negligent. The County Council successfully defended 80% of the property damage claims and 96% of the personal injury claims it received in 2009.

Maintaining Staffordshire's Highway Network

Staffordshire's highway network is valued at £6.5bn. Maintenance of the network continues to be one of our largest items of expenditure, absorbing 81% of total highways spend or 61% of the total transport budget in 2010/11. Maintenance covers a wide range of essential activities as outlined in Table 2.1.

Box 2.1: 'Invest to Save' Initiative - Street Lighting

Internal 'Invest to Save' funds of £735,000 have been invested into updating some of Staffordshire's street lighting infrastructure. From 2011/12 the project will provide an annual saving of £150,000. Once the initial outlay has been paid back in full, by mid 2015, the project will provide the full effect of the investment. Reductions in CO_2 levels, estimated to be around 300t of CO_2, are anticipated upon completion of the upgrade.

Table 2.1: Maintenance Activities

Activity	Summary
Routine Cyclical Maintenance	Work or services carried out at regular intervals or to a consistent schedule, including hedge and grass cutting, weed spraying, tree maintenance, clearing drains and emptying gullies.
Structural Maintenance	Planned work on roads, footways and cycleways, including resurfacing and reconstruction, kerb and drainage works.
Preventative Maintenance	Surface dressing and slurry sealing.
Reactive Maintenance	Responding to inspections, complaints or emergencies such as repairing potholes and accident damage.
Structures Maintenance and Renewals	Planned and reactive work on all structures, including repairing and building bridges, retaining walls, subways and culverts.
Winter Service	Precautionary salting and reactive snow clearing on roads, footways and cycleways.
Traffic Signal and Management Systems	Repairing and installing traffic signal and related traffic control systems.
Street Lighting and Illuminated Signs	Repairing and installing street lighting columns and illuminated traffic signs.

The proportion of the maintenance budget that is allocated to each of these activities is set out in Table 2.2.

Table 2.2: Allocation of Maintenance Budget

(Please note that these figures are for 2010/11 and are not fixed proportions)

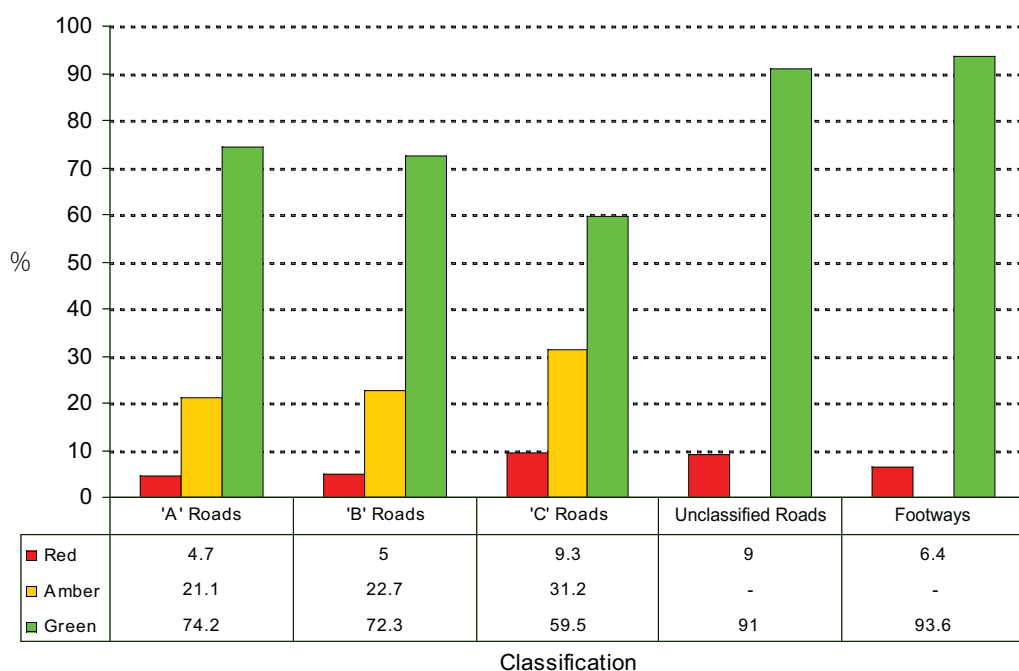| Activity	Percentage
Routine Cyclical Maintenance	1.3
Structural Maintenance	32.8
Preventative Maintenance	17.7
Reactive Maintenance	14.7
Structures Maintenance and Renewals	9.9
Winter Service	4.8
Traffic Signal and Management Systems	2.3
Street Lighting and Illuminated Signs	16.5

We have taken significant steps in the implementation and further development of an integrated Transport Asset Management Plan or TAMP (Appendix R). It sets out our approach for managing transport assets based on the County Surveyors' Society framework document for Highway Asset Management Plans. It details how we manage transport assets on a long-term basis using whole-life costing, taking account of statutory requirements, customer expectations and funding. It includes completed inventories, inspections and maintenance regimes, and safety management systems for a number of assets including:

- Carriageways.

- Footways.

- Bridges.

- Streetlights.

- Illuminated signs and bollards.

- Traffic signals.

- Road gullies.

- Urban and rural verges.

Through the TAMP we have adopted a proactive asset management approach, which allows more cost-effective and timely maintenance to take place. Proactive asset management will reduce some of the need for reactive maintenance which, whilst being vital for highway safety, is not as cost-effective in the longer term. Proactive asset management is estimated to have generated savings of £0.5m during 2009/10, which has been re-distributed back into road maintenance activities.

The condition of Staffordshire's local highway network in 2009/10 is shown in Graph 2.2 using a traffic light system, whereby green roads are in good condition and red roads are in poor condition and require imminent maintenance. We aim to sustain the proportion of highways falling into the green and amber categories by treating them before significant deterioration sets in, requiring costly maintenance. We also aim to see no increase in the proportion of red roads, which comprise (as a proportion) mainly 'C' and 'Unclassified' roads.

Graph 2.2: Condition of the Highway Network, 2009/10

	'A' Roads	'B' Roads	'C' Roads	Unclassified Roads	Footways
Red	4.7	5	9.3	9	6.4
Amber	21.1	22.7	31.2	-	-
Green	74.2	72.3	59.5	91	93.6

Classification

The majority of our highway services are delivered through a single integrated team with our highway term maintenance contractor, Enterprise plc. The service operates as a 'Virtual Joint Venture' (VJV) and through collaborative working, continually seeks to deliver efficiency savings. The VJV influences the way in which highway services are structured in order that public and private sector staff can work seamlessly, with roles being carried out by whoever is best placed to do so. Efficiency savings as a result of the integrated team approach are estimated to be in the region of £25m since 2004. The 'cost plus' nature of the contract allows these savings to be reinvested into the highway maintenance service. This places Staffordshire County Council in the top 10 of local transport authorities for 'Gershon' efficiency savings.

2.5 Strategy

Staffordshire's highway network primarily falls under the ownership of Staffordshire County Council and the Highways Agency. Areas that we, as the local transport authority, can influence are:

- Ensuring the maximum benefit from the highway.

- Delivering better street lighting.

- Designing for maintenance.

- Delivering winter services.

- Delivering sustainable highway maintenance.

- Improving communication.

- Ensuring better co-ordination of activities and joint working.

Working towards these areas will have far-reaching benefits beyond safe and serviceable roads and footways. Other benefits are around security, congestion, economic development and quality of life.

Ensuring the Maximum Benefit from the Highway

Maintaining Staffordshire's highways using a proactive asset management approach in accordance with the principles of best value and continuous improvement is vital. Long-term preventative road maintenance is needed to properly address existing defects. Short-term 'quick fixes' fail to tackle the root of the problem and tend not to withstand extreme weather conditions; they also tend to lead to more maintenance work, more cost and the public becoming more frustrated. This approach, which has allowed us to arrest the overall deterioration of the highway network, was assisted in 2009 by a one-off grant to support maintenance activities (see Box 2.2.).

Box 2.2: One-off Investment into Roads and Footways

In 2009/10 the authority pledged to invest an extra £30m over four years into highway maintenance activities. This will enable the renewal of 'amber' and preservation of 'green' roads before they become more expensive 'red' and 'amber' roads respectively, together with addressing some of the backlog of 'red' roads. This investment will go some way to improving the overall condition of Staffordshire's carriageways and footways.

Policy 2.1:

We will ensure that funding is used to gain the maximum benefit from the highway.

This will be achieved by:

- Delivering the actions and priorities of the TAMP (Appendix R).

Delivering Better Street Lighting

Street lighting provides an important service during the hours of darkness, protecting people and property, and enhancing the night-time environment to encourage greater use of local facilities in the evenings. Effective street lighting also deters criminal activity and reduces road traffic collisions.

Policy 2.2:

We will manage street lighting in a sustainable manner.

This will be achieved by:

- Ensuring the existing street lighting infrastructure is operating at the required level of efficiency in terms of inventory requirements through the 'Invest to Save' initiative (see Box 2.1).

- Replacing ageing lights with modern, efficient lighting that consumes less energy and reduces 'light spill'.

- Examining the benefits and disbenefits of de-illumination, part-night lighting, light dimming or switch off and removal of certain lights, where appropriate.

- Reviewing the PFI's design standards to make sure the correct infrastructure is installed in the right places.

- Offering advice to local planning authorities as to whether areas to be adopted require lighting. If lighting is deemed to be required, lighting classes will be specified, together with switching criteria which may include dimming and part night lighting.

- Maintaining lights in accordance with the principles set out in 'Well-lit Highways – Code of Practice for Highway Lighting Management' and Institution of Lighting Engineers Technical Reports, as well as industry best practice (www.ukroadsliaisongroup.org and www.ile.org.uk).

- Repairing a fault within five working days of it being reported (where possible).

Designing for Maintenance

Without inhibiting creativity, we must design schemes with future maintenance requirements in mind. In some areas, high quality and relatively expensive materials may provide appropriate, low maintenance and cost-effective treatments. At the same time, the use of environmentally sensitive materials in certain locations may be appropriate despite the possibility of higher future maintenance costs.

Policy 2.3:

We will consider the maintenance implications of all new highway schemes.

This will be achieved by:

- Having an understanding of future maintenance requirements (on a 'whole-life basis') at an early stage in scheme design.

- Designing maintenance friendly schemes in terms of production and safety, encouraging good and best practice, and innovation.

- Regularly reviewing schemes' maintenance regimes.

Delivering Winter Services

A winter service programme is necessary to minimise delays, road traffic collisions and damage to the highway resulting from frost, ice and snow. From October to April we are on standby to deliver our winter service programme as soon as adverse weather conditions are experienced. The programme primarily comprises the gritting of the highway in anticipation of, or to assist with, the removal of frost, ice and snow. We currently treat 43% of the local network, which is well above the national average; the Audit Commission recommends that between 24% and 38% of the highway network should be pre-salted, which is the position adopted by most local transport authorities. A lesser part of the winter service programme is the use of snow ploughs to remove significant snow where it has settled or drifted.

Policy 2.4:

We will treat designated parts of the highway to reduce the effects of frost, ice and snow.

This will be achieved by:

- Following the policies contained in the County Council's Winter Service Policy (www.staffordshire.gov.uk).

Box 2.3: Extra £4m Investment in Pothole Road Repairs

We have gone through the highways' budget with a fine tooth comb and by re-phasing other works programmes we have identified a way to boost our investment in repairing the damage caused by the winter's freezing conditions. This will more than double the additional emergency pothole funding that was announced by DfT in February 2011.

Ten extra road construction teams will be drafted in to carry out a 10-week blitz on some of the worst affected roads, working alongside Staffordshire's existing highways crews. This additional investment will not only tackle the problems caused by the coldest December on record, but will also be used to bring forward the road reconstruction programmes which have already had a massive boost with a £30m injection over four years (see Box 2.2).

Delivering Sustainable Highway Maintenance

The activity of maintaining the highway network can require significant amounts of natural resources and generate large quantities of waste (see Box 2.4), as well as having the potential to damage natural and cultural heritage on or near to the highway network.

Policy 2.5:

We will ensure that the impact on the environment of traffic and road improvement work is considered as part of scheme design and delivery.

This will be achieved by:

• Following the policies contained in Chapter 7 'Respecting the Environment'.

Box 2.4: Gully Waste Recycling

Through the development of a Sustainable Strategy with Enterprise plc, we identified that our method for gully cleaning and the disposal of waste material was ineffective. Staffordshire has over 175,000 road gullies, which remove surface water run-off from the carriageway and prevent sediment being carried into the drainage system. With at least annual gully cleaning, this produces a total of 60t of dry waste every week. A new facility was constructed in Stone to handle all of the county's gully waste. Its benefits include:

- 432t of CO_2 saved from the diversion of waste from landfill.

- 28,680 miles saved in transportation.

- 3,326t of waste diverted from landfill into compost.

- 9,800ltr of grey water recycled per week.

Improving Communication

Effective channels of communication, such as those described in Boxes 2.5 to 2.7, are necessary. This enables:

- The County Council to inform residents, businesses and visitors about planned works in order to reduce inconvenience and disruption.

- Residents and highway users to let the County Council know their concerns and to feel able to influence the County Council's activities.

Box 2.5: Neighbourhood Highway Team

Forming part of Staffordshire Highways are 10 Neighbourhood Highway Teams. They visit all 179 parishes and 41 urban wards in the county at least three times a year and deliver a service that has been designed in advance through discussions with local community representatives. They undertake small non-safety related works such as weed and grass trimming, fence repairs, gully emptying, sign cleaning and replacement, and cutting back tree growth.

Box 2.6: Highways Hotline (formerly Clarence)

Since 2003 we have encouraged highway users to report and track faults, and seek advice or information on highway related matters through a 24-hour, 365 days a year, dedicated telephone and web-based service known as the Highways Hotline. Once notified, we repair over 98% of serious safety defects within 24 hours whilst less serious safety defects are repaired within 14 days, although in practice this is much quicker. Annual surveys show that levels of customer satisfaction with this service are approaching 80%.

Box 2.7: Pitching the Message - Communication Guidelines for all Highway Schemes

The key message of this internal publication is to get the communication right from the outset about what we are planning to do, how long it may take and what the likely disruption may be. The Guide suggests a protocol which may be applied in the early stages of scheme design. It assists engineers in identifying the communication requirements for their scheme, together with associated costs and timescales. It helps to foster good relations with residents, stakeholders and the media.

Policy 2.6:

We will engage in open communication with those affected by traffic and highway improvement work.

On a scheme-by-scheme basis and where appropriate, this will be achieved by:

- Undertaking targeted public, stakeholder and member consultation during the feasibility stage of scheme design to gauge need and support, and to ensure that the experience of local people, in respect to the proposals, are in line with their expectations.

- Notifying residents and local businesses about schemes, including giving information on road closures, diversions, length of disruption, and officer contact details for advice and assistance.

- Publishing information on schemes in the local press, through local radio and on our own website.

- Reviewing feedback received about our communication activities and where necessary, responding to individual comments or carrying out further consultation.

- Following 'Pitching the Message - Communication Guidelines for all Highway Schemes' (see Box 2.7).

Ensuring Better Co-ordination of Activities and Joint Working

Beneath much of the highway network runs a web of pipes and cables conveying water, waste, energy and information. Like the County Council, owners of these networks require access in order to carry out maintenance. As there are potentially a number of parties wanting to access the network at any one time, it is important that these activities are co-ordinated. In addition, taking steps to co-ordinate works with neighbouring local transport authorities is also beneficial in terms of cost and resource management, levels of service and user perception (see Box 2.8).

Box 2.8: Project Patch

With funding provided by Improvement and Efficiency West Midlands, we worked with Worcestershire County Council on 'Project Patch'. It aimed to investigate the potential for cost and efficiency savings in minor carriageway repair work by improving information about known defects, thereby making more informed decisions about when, who and what is needed to carry out repairs. Benefits of 'Project Patch' include:

• Labour and plant costs for hand lay repairs reduced by 50%.

• Identified cost savings of between £150,000 and £500,000 per year through reducing return visits to failed repairs.

• Greater consistency and efficiency of programming work from fewer or a single location.

• Better, longer lasting quality of repair focused on increasing public satisfaction.

Policy 2.7:

We will seek opportunities for joint working and the co-ordination of highway activities with third parties.

This will be achieved by:

• Consulting with third parties and neighbouring local transport authorities at an early stage on future highway activity, including maintenance, and where possible, amend programmes as appropriate.

• Communicating regularly with third parties and neighbouring transport authorities in order that all parties understand the need to meet their programmes and inform others of any changes.

For further measures about our plans to ensure that opportunities for joint working and greater co-ordination with third parties are taken, please see Appendix K.

2.6 Anticipated Outputs and Outcomes

Table 2.3 shows the anticipated benefits of this Strategy when combined with the delivery of the entire LTP Strategy Plan.

Table 2.3: Maintaining the Highway Network

Challenges	Policies	Outputs	Indicators	Targets
Maintain the current condition of the highway network and its infrastructure	Policy 2.1: We will ensure that funding is used to gain the maximum benefit from the highway	Improved public realm and better, safer infrastructure	Condition of: • principal roads (Council maintained 'A' roads) • non-principal classified roads (Council maintained 'B' and 'C' roads) • unclassified roads (Council maintained minor roads that are not designated) • surface footways (pedestrianised areas and any area alongside a road intended for use by pedestrians) Street lighting lit at anyone time Energy consumed for street lighting Public satisfaction with street lighting Public satisfaction with condition of highways Compensation claims received and payments made due to incidents on the highway	Ensure no increase in the proportion of 'A' roads that require imminent maintenance from a 2009/10 baseline
Keep the highway safe and serviceable whilst achieving value for money	Policy 2.2: We will manage street lighting in a sustainable manner	Fewer compensation claims received due to incidents on the highway network		Ensure no increase in the proportion of 'B' and 'C' roads that require imminent maintenance from a 2009/10 baseline
	Policy 2.3: We will consider the maintenance implications of all new highway schemes	Efficiency savings generated through targeted and collaborative maintenance		
	Policy 2.4: We will treat designated parts of the highway to reduce the effects of frost, ice and snow	Greater co-ordination of works on the highway resulting in less disruption to users		
	Policy 2.5: We will ensure that the impact on the environment of traffic and road improvement work is considered as part of scheme design and delivery			
	Policy 2.6: We will engage in open communication with those affected by traffic and highway improvement work			
	Policy 2.7: We will seek opportunities for joint working and the co-ordination of highway activities with third parties			

1 Network Rail owns and manages the fixed assets (such as tracks and signals) of the rail network. British Waterways is the navigation authority in England, Scotland and Wales for the vast majority of canals as well as a number of rivers and docks. In September 2010, British Waterways was identified as one of 177 quasi non-governmental organisations to be abolished under the Government's Comprehensive Spending Review. It is thought that British Waterways will be turned into a charitable trust from 2012, which will mean that it will have more say over how it raises and spends money, and it will be free to access grants and charitable funds. Midland Expressway Limited is a private company with the Government concession to design, build, open and operate the 27m of the M6 Toll until 2054. After this time the road will be handed back to the Government.

2 Section 41 of the Highways Act 1980 states that a highway authority is under a duty to maintain those highways in the area for which it is responsible, which are highways "maintainable at the public's expense (public highways)". Section 58 provides a statutory defence against claims where it can establish that reasonable care has been taken to "secure that the part of the highway to which the action relates was not dangerous to traffic". A systematic process of highway safety inspections, intervention and repairs is necessary for the statutory defence.

3 ALARM – Annual Local Authority Road Maintenance (Road) Survey 2010, Asphalt Industry Alliance (March 2010).

4 www.dft.gov.uk/pgr/statistics/datatablespublications/roadstraffic/ roadlengths/. In 2008 Staffordshire had the 15th largest (out of 204 authorities) road network in the country.

5 The National Highways and Transport Public Satisfaction Survey (2010).

6 The condition of road bridges is evaluated in accordance with the Bridge Condition Indicator (BCI) developed by the Association of Directors of Environment, Economy, Planning and Transport (ADEPT). This indicator reports the average condition of all components and the critical condition of components with high structural importance. Critical components are those elements of a bridge that are deemed to be of very high importance such as the primary deck, tie beams/rods, cross-heads, and parapets beams.

7 Street lighting accounts for 15% of the County Council's energy consumption.

8 National Highways and Transport (NHT) Public Satisfaction Survey (2010).

Chapter 3

Making the Transport System Easier to use and Places Easier to Get to

Staffordshire
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3. Making the Transport System Easier to use and Places Easier to Get to

3.1 Key Facts

• 81% of households in Staffordshire own at least one car - well above the national average of 73%.

• 78% of Staffordshire's residents are satisfied with the ease of access to key services.

• 67% of Staffordshire's residents with a disability are satisfied with the ease of access to key services.

• 79% of Staffordshire's residents living in non-car households are satisfied with the ease of access to key services.

3.2 Challenges

• Reduce social exclusion faced by residents.

• Make 'access for all' a key consideration when planning new housing and employment sites, services and facilities.

3.3 Introduction

Access to jobs, education, services and activities can improve an individual's quality of life. However, many factors affect this, including:

• An individual's physical mobility.

• The availability, quality and affordability of transport modes.

• The transport system's connectivity.

• The availability and accessibility of travel information and communications.

• The level of customer care and public attitudes.

• The perceived safety and security of the highway and public transport network.

• The design and location of jobs, education, services and facilities.

• The way services and facilities are delivered.

In order to create an inclusive society, which promotes equality of access and opportunity, destinations need to be as accessible to as many people as possible. Reasonable steps must be taken to remove barriers to access, making the transport system easier to use and places easier to get to. Until barriers are removed, a proportion of people will be disadvantaged, unable to access the jobs, services and activities they want, and limited in the extent to which they can participate in society. Individuals most likely to be affected include the elderly, the young, those with a temporary or permanent disability and those without access to a private motor vehicle.

3.4 Scale of the Challenge

Progress to Date

Much has been achieved in recent years. For example:

• 83% of urban residents (and 69% of all residents) now live within 350m of a bus stop which has a better than half-hourly weekday service (8am-6pm)[1].

• All signal controlled pedestrian crossings have facilities for disabled users.

• Approximately 80% of public transport buses are low-floor or easy access.

• 71% of minibuses used by community transport schemes are accessible.

• 80% of public rights of way are classed as 'easy to use'.

Despite improving accessibility levels, many people are still excluded from much of what the county has to offer. The groups most likely to experience difficulty accessing jobs and services in Staffordshire, and the types of destinations that are most difficult to access in the county are outlined in Table 3.1. More information about these groups and destinations is given in Appendix F and J.

Table 3.1: Groups most likely to have Difficulty Accessing Jobs and Services and the Types of Destinations that People have Difficulty Accessing

Groups	Destinations
People with a disability	Main towns
People on low-income	Employment sites
The young	Healthcare services
The elderly	Shops selling healthy foods
People living in rural areas	Leisure and recreation facilities
People living in deprived areas	
People who do not have access to a private motor vehicle	

3.5 Strategy

Making the transport system easier to use and places easier to get to will help bring about a fairer society and we, together with our partners from the public, private and voluntary sectors have a crucial role to play in making this happen. Areas that we, as the local transport authority, can influence are:

- Improving integration between transport and land-use planning.

- Improving bus services.

- Supporting residents with mobility impairments and those without access to a private motor vehicle.

- Improving and integrating 'other' transport services.

Making the transport system easier to use and places easier to get to will contribute towards wider local objectives around health, education, employment, economic development and quality of life.

Improving Integration between Transport and Land-Use Planning

Where we live, work and shop, plays an important part in our decision regarding how we travel and it is important that this is recognised in spatial and transport planning processes. Developments such as new offices, retail and housing can place significant new demands on the highway network unless they are appropriately planned and integrated. Developments can also have a positive impact on the highway network by easing local traffic flows, improving the street scene and supporting new bus services.

Policy 3.1:

We will support the adoption of sustainable land-use planning polices and reduce the impact of development where it negatively affects the highway network.

This will be achieved by:

- Working with local planning authorities and developers through the Local Development Framework process to:

  - Encourage the design and layout of new development that maximises access by smarter travel modes, especially in urban areas.

  - Improve street design to create inclusive environments, especially in town centres whilst reconciling safety issues.

  - Promote the retrofit of existing developments in order to maximise access by smarter travel modes, especially in urban areas.

  - Seek development mixes and patterns that are accessible to a broad range of services and facilities, which reduce the need to travel by private motor vehicle.

- Working with local planning authorities to include planning obligations which secure highway capacity improvements, pedestrian and cycling facilities, new or improved bus services, demand management measures, public realm enhancements, and travel plans.

- Ensuring that travel plans, when required to support new development, include modal shift targets, annual performance monitoring, remedies and enforcement obligations.

Improving bus services

Making bus services more convenient, reliable, affordable, comfortable and accessible is important in order that we retain existing users and encourage new users away from their cars. For example, public transport information that is timely and accessible is critical to enabling people to make the right choice about their travel options (see Box 3.1). People, especially those that are either new to travelling on public transport or have special travel requirements, view travel information as critical to their ability to travel confidently and independently. In comparison to other local transport authorities, public satisfaction with public transport information is low at 38%, placing Staffordshire as ninth when compared to its 10 'nearest neighbours'[2].

Box 3.1: Electronic Passenger Information in Burton upon Trent

Along Route 3 (Queen's Hospital to Swadlincote) in Burton upon Trent, we have introduced Electronic Passenger Information. The first stage involves the installation of 'at stop' electronic information displays detailing expected bus arrival times (based on timetable information) at 20 bus stops along Route 3. Following a trial period, a full appraisal of passenger benefits will be undertaken after which we may consider upgrading this system to full Real Time Passenger Information (RTPI). RTPI provides accurate and instant departure and arrival times, enabling travellers to plan their journeys and thus make better use of their time.

The cost of bus travel is another common barrier cited. In Staffordshire, we have combined the very best elements of the concessionary travel schemes previously operated by each local planning authority in order to provide a much improved one-Staffordshire scheme for older and disabled residents (see below for more information); and from June 2011, discounted bus travel will also be available to young people under 20 years of age (see Box 3.2).

Approximately 80% of Staffordshire's public transport bus fleet is either low-floor or fully accessible. By law, all public service vehicles used on local or scheduled services and which can carry more than 22 passengers must be accessible to disabled people[3]. Those weighing up to 7.5t must be fully accessible by January 2015 and all full-size single deck buses over 7.5t must be accessible the year after. Accessible vehicles are a key requirement for people travelling in wheelchairs or with mobility impairments, and are helpful for people travelling with pushchairs or carrying heavy bags.

Policy 3.2:

We will help to improve bus services.

This will be achieved by:

- Providing priority at key traffic junctions along the public transport network, which will improve reliability.

- Continuing to support Public Transport Partnerships and where appropriate and feasible, create new ones where they can bring improvements to the quality, reliability and punctuality of bus services.

- Working with bus operators to 'lock-in' the benefits of bus priority measures (such as traffic management).

- Working with bus operators to regularly review services so that opportunities for integration (in terms of connections and timings) are maximised.

- Working with bus operators to encourage the creation of new integrated ticketing schemes, where it has the potential to benefit users (such as the Plusbus Scheme[4]).

- Working with bus operators and partners to deliver a modern travel information system, including in-journey information.

- Continuing some level of service (where budgets allow) when commercial bus services are withdrawn, especially in deprived and remote areas.

- Working with transport operators and partners to provide new accessible interchanges where they provide significant user benefits and demonstrate value for money.

- Encouraging measures that enable good accessibility to public transport interchanges from new developments and, where appropriate, secure funding from developers towards the costs.

- Encouraging bus operators to use accessible buses on all their services before 2015.

- Increasing the proportion of accessible buses operating on Staffordshire's subsidised bus network (where budgets allow).

- Maintaining socially important bus routes and minimum rural bus service levels (where budgets allow).

- Enforcing the customer care, equal opportunities, and health and safety conditions set out in our subsidised service contracts, and encouraging rail and bus operators to train frontline staff to ensure that the needs of all passengers are understood.

Supporting Residents with Mobility Impairments and those without Access to a Private Car

Improving the public realm - streets, pedestrianised areas, squares and parks - will help everyone. Tidying up and de-cluttering streets by removing unnecessary signs, guardrails and bollards, and installing tactile paving, raised and dropped kerbs, and audible and tactile signals at pedestrian crossings, will create inclusive environments and encourage greater use of the highway network, especially by the mobility impaired.

The mobility impaired also benefit from the Blue Badge scheme. It enables badge holders to park close to where they need to go and has expanded the travel opportunities of over 50,000 Staffordshire residents. Mobility scooters have also provided significant benefits for the mobility impaired. In recent years, the number of scooters has increased dramatically within the county. It is important that the responsible use of the Blue Badge scheme and mobility scooters is encouraged in order to improve the safety of all highway users.

The voluntary sector provides a range of transport services to individuals and community groups, comprising community minibus schemes and voluntary car schemes. They are used by people who cannot use conventional public transport because of a mobility difficulty or because of a lack of a convenient bus or train service. The schemes play an important role in Staffordshire's transport mix and offer a valuable service to the county's most vulnerable residents. However, public satisfaction with voluntary sector transport is low[5] - probably because relatively few people know about and/or use them. The demand for voluntary sector transport is likely to increase in line with the predicted growth in numbers of older people (as outlined in the 'Introduction') and a balance must be struck because many of these schemes rely on volunteers and can therefore struggle to meet demand.

Free travel on all local service buses is available at any time of the day throughout the county for older people who are of state pensionable age and disabled people who qualify under the Department for Transport criteria[6]. A companion pass is also available to allow free travel for a carer to accompany a blind or disabled person. This scheme is a significant enhancement to the statutory Concessionary Fare Scheme for older and disabled people, which previously operated in the county and was administered by each local planning authority.

From June 2011 young people under 20 years of age will be entitled to a Young Person's Travel Card, which is described in Box 3.2.

Box 3.2: Young Person's Travel Card

The Young Person's Travel Card will assist young people across Staffordshire in travelling to training, employment and leisure activities as well as providing a reliable proof of age. Using the card, they can travel anywhere within the Staffordshire County Council area by bus for just £1 per journey throughout the day.

The Young Person's Travel Card is founded on the premise that it will, at least in part, 'pay for itself' since more young people will begin travelling by bus and hopefully this trend will continue into adulthood. The scheme is supported by bus operators who expect to see a growth in passenger numbers across the county due to the introduction of this and the older persons' concessionary fare scheme.

The Young Person's Travel Card can also be configured to enable future 'add-ons', such as entry to leisure centres, young persons' discounts in stores, etc.

Policy 3.3:

We will support residents with mobility impairments and those without access to a private motor vehicle.

This will be achieved by:

- Working with local planning authorities and developers through the Local Development Framework planning process to improve the layout and design of streets, and remove any unnecessary clutter both in connection with new development and publicly promoted projects.

- Ensuring that appropriate street design is considered from the outset in scheme design both in connection with new development and publicly promoted projects.

- Working with Staffordshire Public Access Network's (SPAN) highways sub-group to ensure two-way dialogue between ourselves and organisations representing people with mobility difficulties on scheme design and delivery.

- Encouraging the safe and responsible use of the Blue Badge scheme.

- Encouraging the safe and responsible use of mobility scooters.

- Continuing to provide high quality advice, information and guidance to the county's voluntary sector transport schemes.

- Stimulating innovation and encouraging the adoption of best practice within the county's voluntary sector transport schemes.

- Facilitating the take up and use of concessionary travel passes.

- Reviewing the use of concessionary travel passes on 'other' transport services, including community transport under discretionary enhancements.

- Encouraging service providers to take their services into communities (such as mobile libraries, the Jobs' Bus and GP branch surgeries).

Improving and Integrating 'Other' Transport Services

There are many other modes of transport that can help to promote equality of access and opportunity, which must also be considered. Rail is an obvious example as it can be used for both local journeys and journeys further afield.

Staffordshire has 220km of rail line and 22 rail stations[7], the majority of which have at least hourly services. Similarly to bus travel, rail service timings and connections, cost, information, access to and within stations, as well as getting on to and moving around train carriages, especially for those with mobility impairments, are all important issues.

Over recent years a number of enhancements have been made to rail services and facilities in Staffordshire - two examples are described in Boxes 3.3 and 3.4.

Box 3.3: Station Improvements along the Chase Line

Four stations along the Chase Line - Landywood, Cannock, Hednesford and Rugeley Town - have seen improvements as part of the National Stations Improvement Programme. Improvements included renewed waiting shelters, new CCTV, as well as individual schemes to address specific issues at each station. Work was funded by Network Rail and Centro, and was completed in autumn 2010.

Box 3.4: Secure Stations Scheme

Three rail stations - Lichfield City, Lichfield Trent Valley and Stafford - are part of the Secure Stations Scheme. The Scheme provides an incentive to station operators to improve security and provide reassurance to passengers and staff. It establishes standards of good practice and accredits individual stations which have worked with the British Transport Police and other local partners to implement security measures such as changing the physical design of stations through to management practices.

Coach travel provides a convenient, economical and efficient means of moving groups of people over long distances. In Staffordshire, it is provided on a fully commercial basis by National Express who in 2009 picked up in excess of 10,000 passengers from seven pick-up/drop-off locations within the county. Long distance coach services play an important role in providing a more sustainable and in some instances, a more convenient alternative to the car for long distance journeys.

Coach-based tourism plays a vital part in the tourism industry. In Staffordshire, the coach industry primarily consists of a large number of small firms offering excursions and holidays. Common destinations within the county that are used by coach parties include Alton Towers, Drayton Manor Park, Lichfield (see Box 3.5), the Peak District National Park, The National Memorial Arboretum and Trentham Gardens.

Box 3.5: Lichfield Awarded Coach Friendly City Award

Lichfield is the latest City to be awarded a Coach Friendly City Award in recognition of the efforts the local authority has made to attract and cater for coach visitors. The City is now one of only two in the West Midlands to have achieved coach friendly status - the other being Stratford-Upon-Avon. Lichfield has long been a favourite destination for group travel. Good signage, toilets, and adequate coach parking all play a part in growing visitor numbers.

Photo: courtesy of Visit Lichfield www.visitlichfield.co.uk

Staffordshire's navigable inland waters primarily consist of the canal network. The county has over 200km of canal and canal towpath, which are important resources for recreation, tourism and commuting. They provide safe off-road transport and leisure links between and within urban and rural areas, as well as running close by some tourist attractions such as Drayton Manor Park and The National Brewery Centre in Burton upon Trent.

Boating holidays are increasingly popular, with many holidaymakers choosing Staffordshire as their base, exploring the waterways of the Midlands. A popular choice is the 'ring' formed by the Trent and Mersey, the Birmingham and Fazeley, the Coventry, the Shropshire Union and the Staffordshire and Worcester canals.

Most of the county is within a 2-hour road journey of five major airports - Birmingham (see Box 3.6), Manchester, East Midlands, Liverpool John Lennon and Luton[8]. We recognise the role of regional airports in providing national and international transport links from and to Staffordshire. We also acknowledge that in the north of the county there are calls for better public transport links to Manchester Airport.

Box 3.6: Hourly Rail Service from Stafford to Birmingham Airport

Following consultation on the Cross Country Rail Franchise, we lobbied Government and Network Rail to improve the rail service between Stafford and Birmingham Airport. Prior to change in franchise there were few direct trains and now it is an hourly direct service.

Taxis and private hire vehicles provide a safe and quick way of making door-to-door journeys and are particularly valuable to those with mobility difficulties, carrying heavy shopping, living in rural areas or travelling at night when public transport services are limited. However, for some travellers cost can be a problem and availability in some parts of the county is limited. Sixty-five percent of residents are satisfied with local taxi (or mini cab) services, ranking Staffordshire as fourth when compared to its 10 'nearest neighbours'[9].

Walking and cycling are both sustainable and healthy modes of travel, which can improve access to services and in some cases, provide a quicker alternative than the car for short distance journeys. Chapter 6 'Improving Health and Quality of Life' sets out how we intend to increase walking and cycling levels, together with the Staffordshire Cycling Strategy (Appendix M) and Staffordshire Walking Strategy (Appendix N).

Policy 3.4:

We will seek to improve and integrate 'other' transport services.

This will be achieved by:

- Working with bus and rail operators to investigate opportunities to create a more integrated approach with regards to connections, timings, infrastructure, information and ticketing.

- Encouraging train station operators to make all elements of their service and stations accessible to all.

- Investigating the possibility of creating a more integrated approach between coach services and more 'conventional' public transport services in terms of connections, timings, infrastructure, information and ticketing.

- Conserving Staffordshire's waterways in partnership with British Waterways, while maximising the opportunities they offer for leisure, recreation, regeneration and where viable, for freight transport.

- Managing potential conflicts that may exist between different users of the canal and towpath network in partnership with British Waterways.

- Maintaining contact with regional airport companies to monitor usage and employment of Staffordshire residents.

- Introducing or re-routeing existing public transport services to link to regional airports where evidence supports such a step.

- Installing taxi pick-up and drop-off points at key interchanges and other major trip attractors where evidence supports such a step.

- Working with local planning authorities to encourage the development of high quality taxi sectors within their areas.

- Working with local planning authorities, taxi and private hire operators to encourage the adoption of best practice.

- Meeting the policies contained in the Staffordshire Walking and Cycling Strategies.

3.6 Anticipated Outputs and Outcomes

Table 3.2 shows the anticipated benefits of this Strategy when combined with the delivery of the entire LTP Strategy Plan.

Table 3.2: Making Transport Easier to Use and Places Easier to Get to

Challenges	Policies	Outputs	Indicators	Targets
Reduce social exclusion faced by residents Make 'access for all' a key consideration when planning new housing and employment sites, services and facilities	Policy 3.1: We will support the adoption of sustainable land-use planning policies and reduce the impact of development where it negatively affects the highway network Policy 3.2: We will help to improve bus services Policy 3.3: We will support residents with mobility impairments and those without access to a private motor vehicle Policy 3.4: We will seek to improve and integrate 'other' transport services	Better bus service coverage Improved community transport, and taxis and private hire services Better passenger transport travel information Better passenger transport interchanges Better passenger transport customer care More inclusive/ accessible urban and rural environments Reduced cost of travel for the young, elderly and those with disabilities	Bus patronage Accessibility levels to key services Public satisfaction with local bus services Public satisfaction with local public transport information Public satisfaction with ease of access to key services (all, people with disabilities, no car households) Public satisfaction with local taxi services Public satisfaction with community transport	Increase bus patronage levels from a 2008/09 baseline Improve access to town centres from a December 2010 baseline Decrease inaccessibility levels from a December 2010 baseline

1 These figures are simplified. It is recognised that whilst someone may live within walking distance of an hourly or better bus services, this does not necessarily mean that they can use that service. Individual mobility, perceptions of personal safety and affordability all play a part in whether a bus service is accessible.

2 The National Highways and Transport Public Satisfaction Survey (2010).

3 Part 5 of the Disability Discrimination Act 1995 (DDA), as amended by the Disability Discrimination Act 2005.

4 www.plusbus.info/

5 53% of residents are satisfied with them, placing Staffordshire last when compared to its 10 'nearest neighbours'. The National Highways and Transport Public Satisfaction Survey (2009).

6 www.dft.gov.uk/pgr/regional/buses/concessionary/

7 Only 19 rail stations have rail services. Barlaston, Wedgwood and Norton Bridge have bus replacement services.

8 The starting point is Stafford and timings have been from the AA Route Planner (May 2010). The five international airports are Birmingham (50 minutes), Manchester (1 hour 5 minutes), East Midlands (1 hour 5 minutes), Liverpool John Lennon (1 hour 18 minutes), and Luton (2 hours).

9 The National Highways and Transport Public Satisfaction Survey (2010).

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Chapter 4

Improving Safety and Security

Staffordshire
Local Transport Plan 2011

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4. Improving Safety and Security

4.1 Key Facts

- In 2009 there were 45 fatalities on Staffordshire's roads, 216 people suffered serious injury and 3,145 suffered slight injury; 21 children were killed or seriously injured.

- Over the last 10 years, the number and severity of road traffic collisions in Staffordshire has progressively fallen.

- In Staffordshire 60% of residents are satisfied with road safety locally, placing Staffordshire as first when compared to its 10 'nearest neighbours'.

- Over one-third of respondents to the Staffordshire Place Survey (2008/09) say that traffic issues are amongst the top five problems in their local area.

4.2 Challenges

- Improve the skills of all road users.

- Improve the current road safety record.

- Tackle crime, fear of crime and anti-social behaviour on the highway network.

- Improve the resilience of the highway network to events that pose safety threats to highway users.

4.3 Introduction

In Great Britain in 2009, road traffic collisions caused 2,222 deaths and 24,684 serious injuries. This scale of death and injury is a huge public welfare issue, causing physical and emotional pain to the victims and their families and friends.

Over the last decade, significant progress has been made in reducing the number and severity of road casualties in Great Britain. In 2009, the number of people killed or seriously injured (KSI) dropped by 44% from the 1994-98 average. Whilst roads in Great Britain are relatively safe by international standards, there are considerable variations in the levels of safety on different parts of the network and involving different user groups. For example, rural road users, young people and children, pedestrians and cyclists in towns and cities, and motorcyclists, have all been identified as groups with a greater tendency to be involved in road traffic collisions[1].

Damage to the highway network, whether deliberate or unplanned, has the potential to impact on road user safety. When damage occurs it must be managed in order to reduce disruption to traffic and maintain safety levels. Actual crime, fear of crime and anti-social behaviour also pose a threat to the safety of highway users and can determine how, when and where people travel.

4.4 Scale of the Challenge

Progress to Date

In 2006 we set ourselves challenging targets to:

- Reduce the number of KSIs by 40% compared to the average for 1994-1998 by 2007 and from 2007 to further reduce the number of KSIs by 4% by 2010.

- Reduce the number of child (0-15 year-olds) KSIs by 50% compared to the average for 1994-1998[2] by the end of 2008-2010.

- Reduce the number of slight casualties by 12% compared to the average for 1994-1998 by 2010.

Graphs 4.1 to 4.3 show the progress we, and our partners, have made in reducing the number of road casualties in Staffordshire. In 2008 we achieved the target relating to all KSIs and by 2009 we had increased this reduction to 48% (compared to 44% nationally). In 2005-2007 our child KSI target was achieved and in 2007-2009 we had increased this reduction to 67%. The target relating to slight casualties was also achieved and in 2009 the reduction stood at 34%. These targets were met through a combination of education, enforcement and engineering measures.

Graph 4.1: All KSI Casualties, 2000-2009
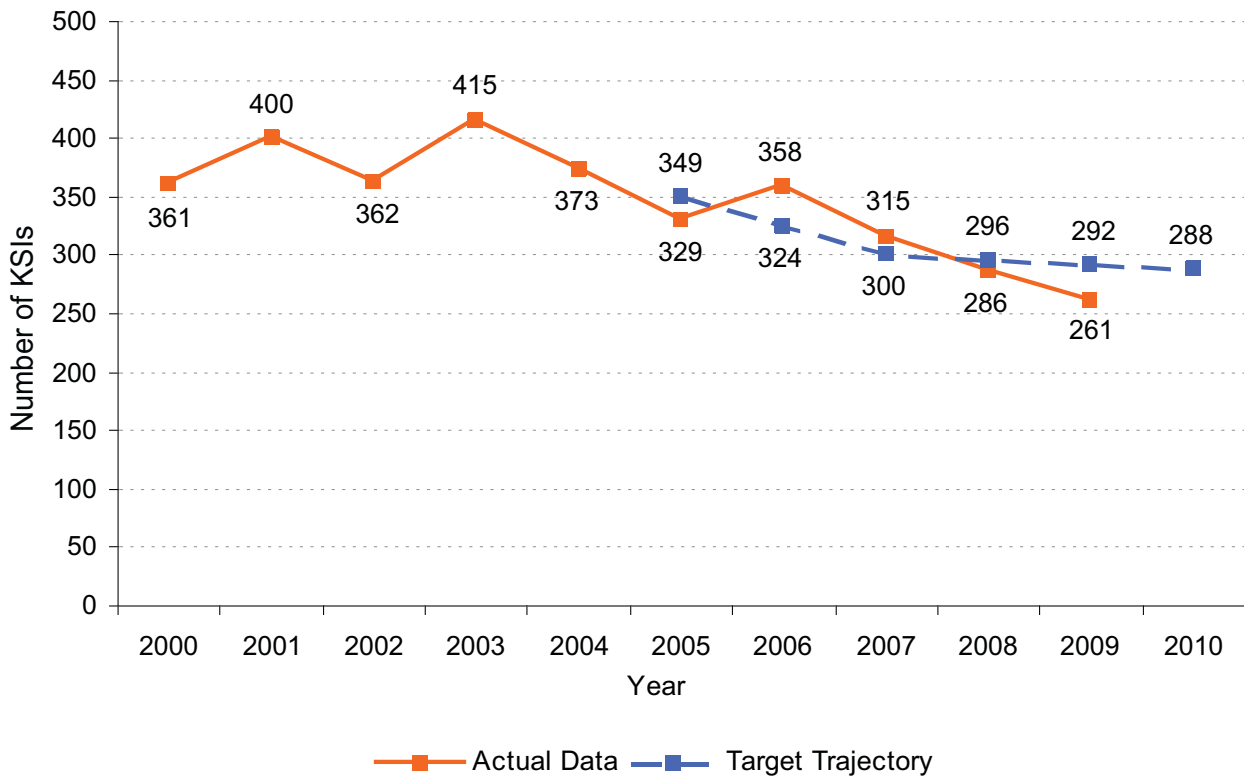
Graph 4.2: Child KSI Casualties, 2000-2009
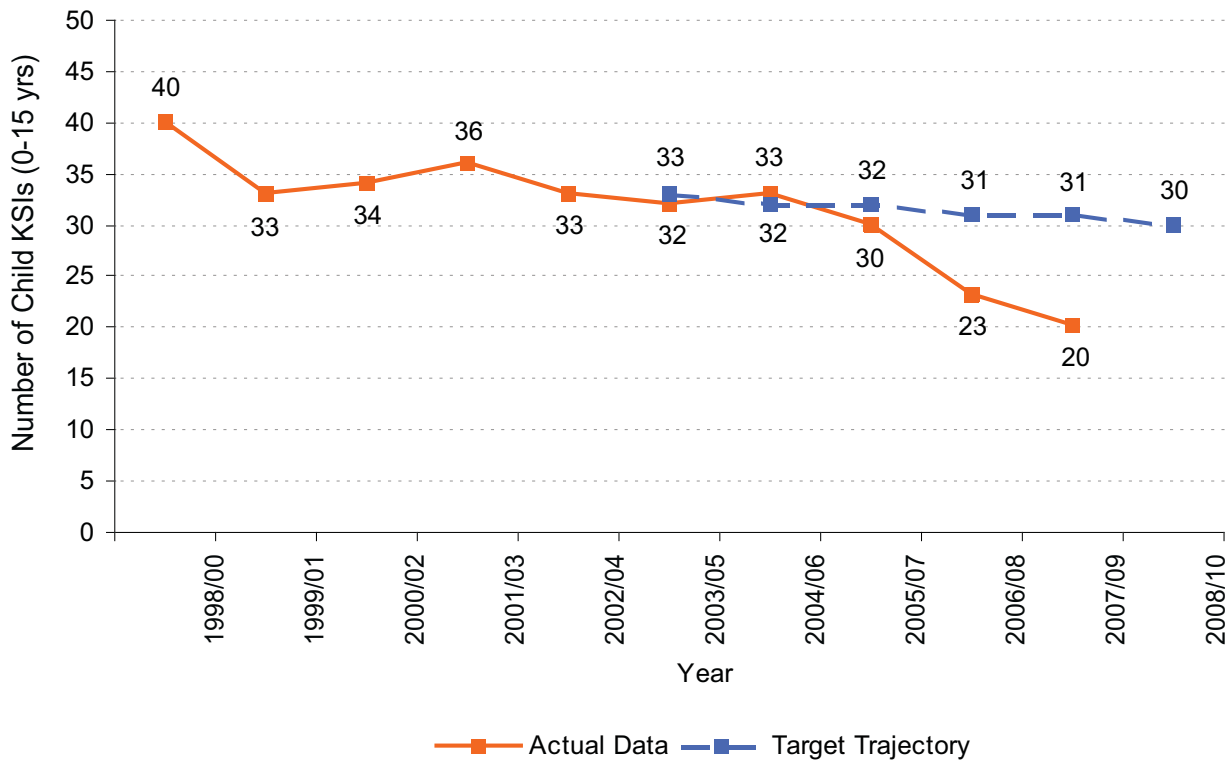
Graph 4.3: All Slight Casualties, 2000-2009

Despite the progress displayed in Graphs 4.1 to 4.3, there were still 45 fatalities, 216 serious injuries and 3,145 slight injuries on Staffordshire's roads in 2009.

In this year, 56.5% of casualties were on rural roads and 43.5% were on urban roads; a summary of this is provided in Table 4.1.
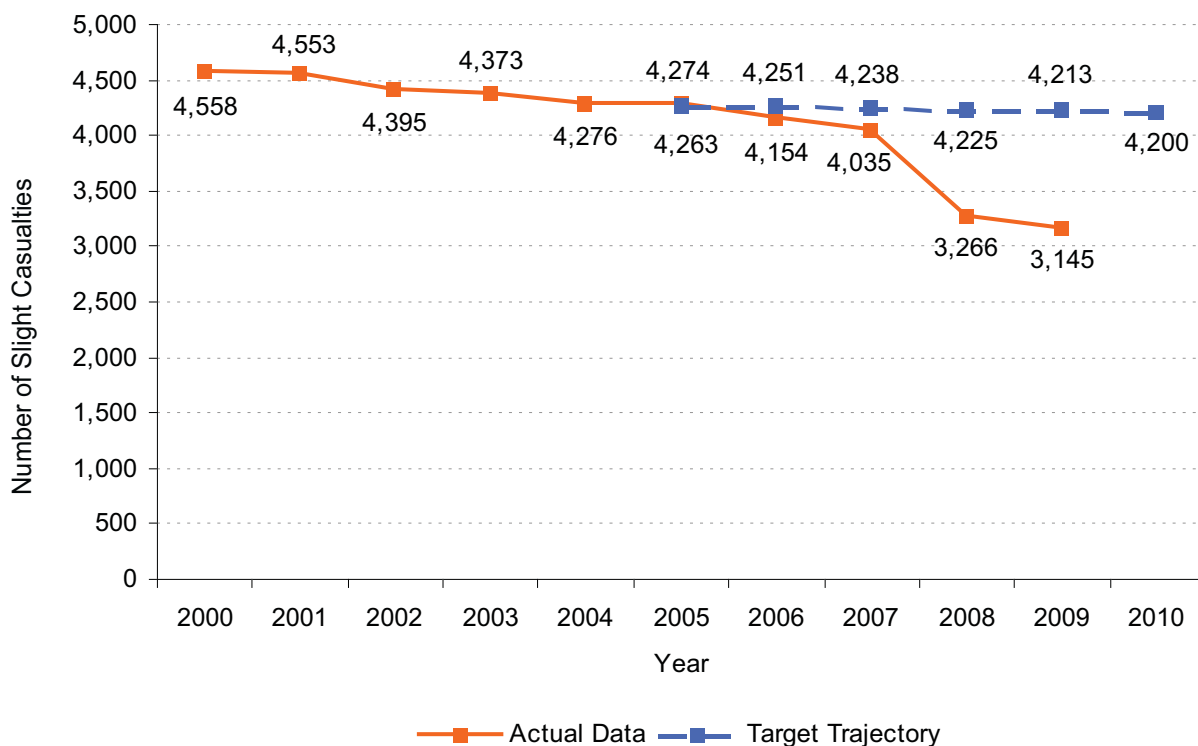
Table 4.1: Overview of Recorded Road Traffic Casualties, 2009

	Rural Road	Urban Road	Total
Total	1,480	1,926	3,406
Fatal and Serious	153	108	261
Slight	1,327	1,818	3,145
Casualties by Mode	Car occupants 1,244	Car occupants 1,242	Car occupants 2,486
	Motorcyclists 104	Motorcyclists 178	Motorcyclists 282
	Pedestrians 14	Pedestrians 273	Pedestrians 287
	Cyclists 24	Cyclists 138	Cyclists 162
Causes	Excessive speed 533	Excessive speed 560	Excessive speed 1,093
	Driver/rider impaired 134	Driver/rider impaired 143	Driver/rider impaired 277
	Driver/rider distracted 58	Driver/rider distracted 96	Driver/rider distracted 154
	Driver/rider behaviour 314	Driver/rider behaviour 415	Driver/rider behaviour 729
	Driver/rider inexperience 119	Driver/rider inexperience 137	Driver/rider inexperience 256
	Driver/rider error 955	Driver/rider error 1,246	Driver/rider error 2,201
	Road layout (collisions) 55	Road layout (collisions) 32	Road layout (collisions) 87

(Data includes the strategic road network (trunk roads and motorways)).

In 2009, 15% of all road traffic collisions in the county were on motorways and trunk roads. Whilst these roads play an important strategic role, they are also used for relatively short distance trips, particularly for accessing employment.

Responsibility for road safety on motorways and trunk roads falls to the Highways Agency and it is imperative that we work with them in the delivery of this Strategy and the Agency's Safety Action Plan (www.highways.gov.uk).

The Cost of Collisions

In Staffordshire in 2009, reported road traffic collisions were calculated to cost society over £223m[3]. Whilst it is not known how many collisions go unreported in Staffordshire, it is estimated that nationally more than three times the number of casualties reported are actually injured[4]. Likewise, it is not known how many damage-only collisions have occurred in the county.

Injury Inequalities

Some modes of transport are at a greater risk of being involved in a road traffic collision than others as shown in Graph 4.4. For example, motorcyclists are at a higher risk; they are involved in over 20% of all KSI collisions yet motorcycles represent just 0.7% of vehicles on Staffordshire's roads. Analysis of collision data for 2007-2009 shows that more motorcyclists are injured on urban roads (656) than on rural roads (335). However, the severity ratio (percentage of KSIs) of these collisions is higher in rural areas (32.2%) than in urban areas (13.9%).

Graph 4.4: Injury Inequalities by Mode, 2009

	Car Occupants	Motorcyclists	Cyclists	Pedestrians	Bus / Coach Passengers	Taxi Passengers
■ KSI	135	55	12	43	0	1
■ Slight	2314	227	150	244	47	19
■ Travel to Work Mode (%)	81	1	2.5	10	5	0.5

Mode of Travel
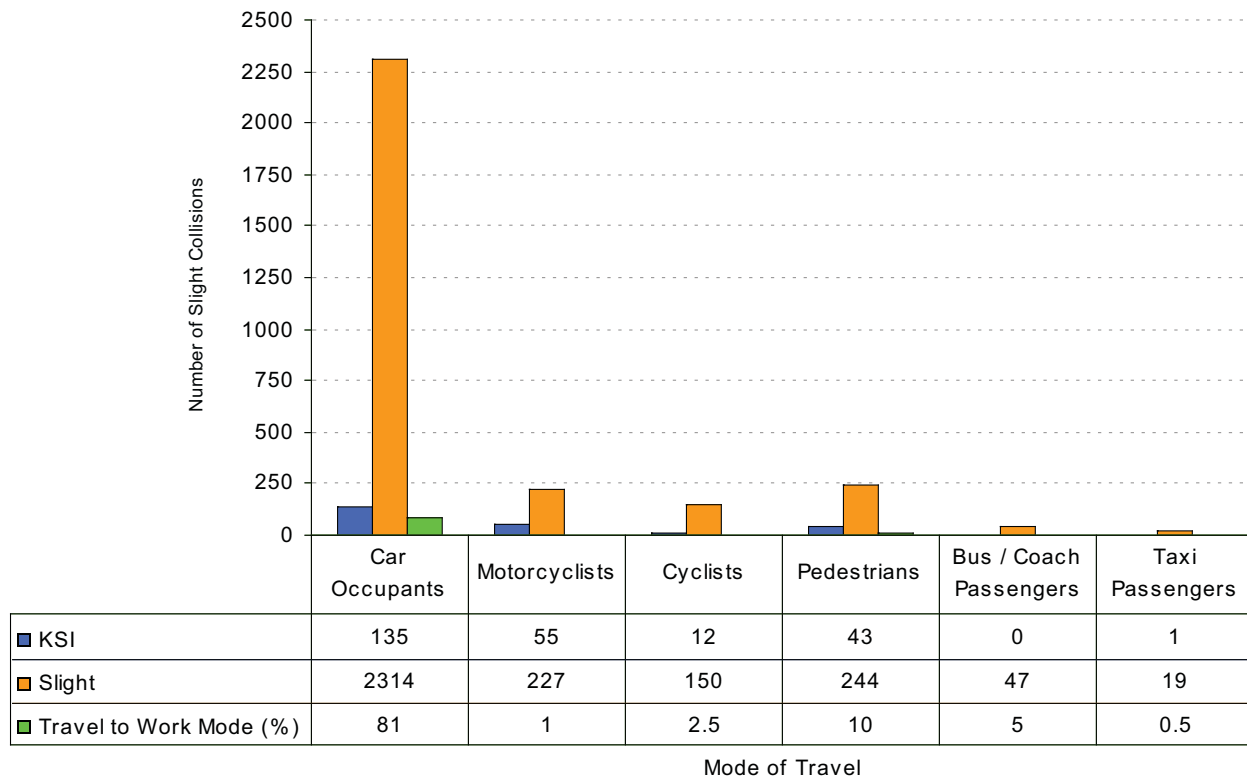
The risk of becoming a road traffic casualty in Staffordshire also varies with age as shown in Graph 4.5. People between 15 and 24 years of age are at greatest risk yet make up just 11% of the population.

Graph 4.5: Injury Inequalities by Age, 2009

	0 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 74	75 - 85+
KSI	18	35	35	20	21	14	30	30	15	5	22	10
Slight	234	480	443	327	243	255	254	218	149	126	242	90

Age (years)
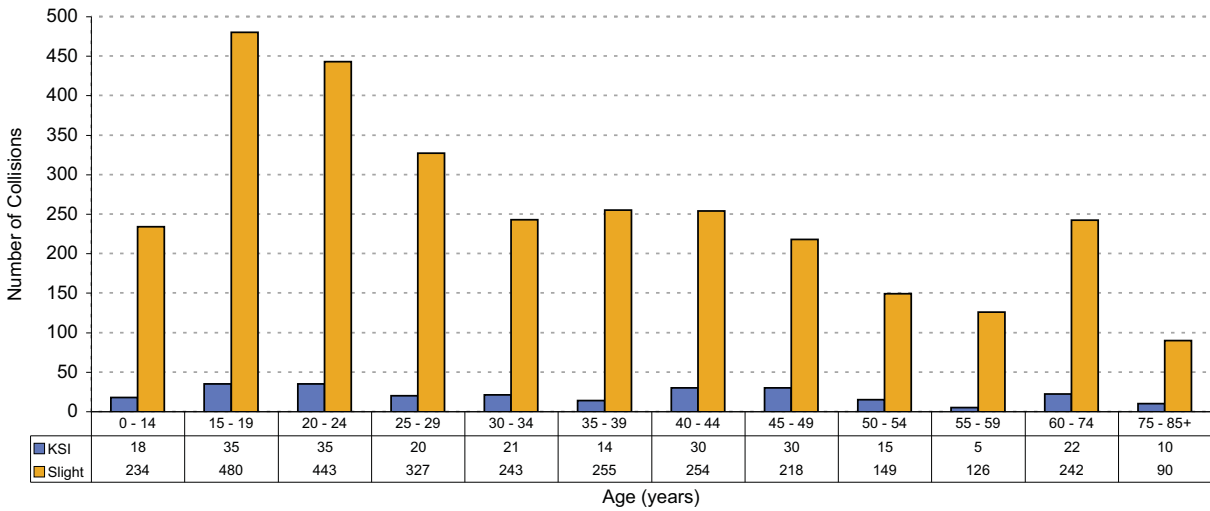
The most deprived areas of Staffordshire suffer a disproportionately high number of road casualties. There is a statistical correlation between the number of child casualties and the level of deprivation recorded by the Indices of Multiple Deprivation (IMD) as shown in Graph 4.6. Whilst this correlation exists, it does not necessarily mean causation as there may be other variables that influence both of these outcomes.

Graph 4.6: Number of Child Casualties and Overall IMD Score by all Super Output Areas, 2005-2007
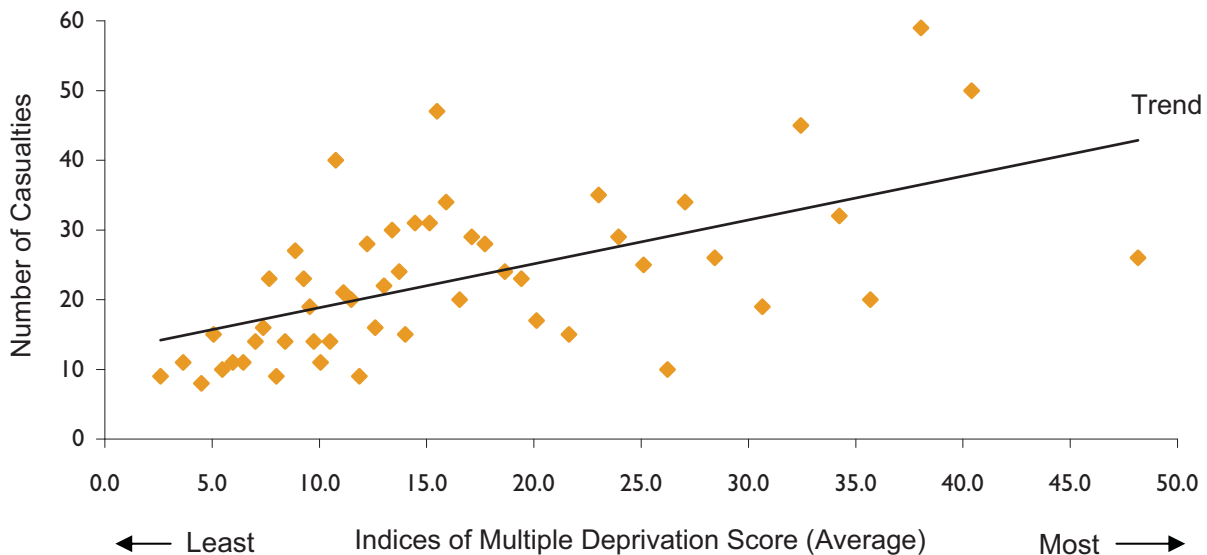
Between 2007 and 2009, there were 3,262 casualties involved in road traffic collisions where at least one of the people involved were on a work related journey[5], and this equates to 29% of all recorded casualties.

Actual and Perceived Levels of Safety and Security

Feeling safe is the most important factor influencing quality of life in Staffordshire. Low crime levels have been consistently highlighted as the most important factor in determining a good area in which to live. Despite Staffordshire's low crime rate of 67.4 per 1,000 population during 2008/09[6], over 90% of residents surveyed in the Staffordshire Place Survey (2008/09) perceive the level of crime to be increasing or stable. Crime whilst travelling on public transport is also low. Between October 2007 and July 2010 there were 208 recorded crimes on buses in Staffordshire and Stoke-on-Trent.

Despite low crime levels, fear of crime and anti-social behaviour are significant issues; the latter being a priority for Staffordshire's residents[7]. Furthermore, over one-third of respondents to the Staffordshire Place Survey (2008/09) said that traffic issues were amongst the top five problems in their local area, and overall traffic offences (such as speeding) were the biggest crime and disorder issue.

Damage to the Highway Network

Whilst it is impossible to say with any certainty how much damage (unplanned or deliberate) to the highway network threatens road user safety, it is thought to be significant[8]. Damage to the network can be caused by:

- Natural events, such as heavy rain, snow and ice.
- Damaged utilities under or near to the network, such as electricity pylons and cables, telephone poles, water, gas and sewage mains.
- Vandalism.
- Terrorism.

Whilst this damage threatens the safety of all road users, it is a particular issue for pedestrians, cyclists and motorcyclists. It can also cause damage to vehicles and as described in Chapter 2 'Maintaining the Highway Network', all local transport authorities have robust systems in place for highway inspections and repairs so that an appropriate defence against any claim relating to damaged property can be established[9].

4.5 Strategy

As the local transport authority we have a statutory duty to promote road safety[10]. However, reducing the number and severity of road traffic collisions is a shared responsibility. There are a number of organisations that have a role to play, each bringing their own particular expertise. Collectively, these organisations have the ability to make significant reductions in casualty numbers, as well as to improve the overall security of the network. The organisations that we will seek to work with in the delivery of this Strategy are listed in Table 4.2.

The priorities of this Strategy are:

- Children (aged 0-15 years).
- Young people (aged 16-25 years).
- Motorcyclists.
- People driving in the course of their work.
- Crime, fear of crime and anti-social behaviour.
- Damage to the highway network.

Table 4.2: Road Safety Partner Organisations

Organisations			
Staffordshire Police	Staffordshire Fire and Rescue Service	West Midlands Ambulance Service	Local planning authorities
Staffordshire Safer Roads Partnership (SSRP)	Community Safety Partnerships	South Staffordshire Primary Care Trust	Staffordshire and Stoke-on-Trent Consortium of Infrastructure Organisations
Stoke-on-Trent City Council	Her Majesty's Court Service	North Staffordshire Primary Care Trust	Crime Reduction Partnership
Probation Service	Staffordshire Stronger and Safer Communities Partnership	Highways Agency	Road/Rail Partnership Group

(Membership of some of these organisations overlap).

Addressing these priorities involves:

- Delivering engineering measures.

- Delivering road safety education, training and publicity.

- Supporting road safety enforcement.

- Reducing crime, fear of crime and anti-social behaviour.

- Planning for and responding to damage caused to transport infrastructure.

Measures to address these priorities will have wider road safety impacts (concerning rural roads, poor road user behaviour, illegal and inappropriate speed, and pedestrians and cyclists) and wider general impacts (such as on accessibility, the economy, health and quality of life).

Delivering Engineering Measures

Road safety engineering aims to create a safer road environment for all road users by addressing conflict between different road users and providing measures to reduce the number of single vehicle collisions. Engineering measures must be based on robust data and have community support. No two schemes are the same and measures that have a positive effect on reducing collisions in one location may not be as effective in another. Likewise, due to the nature of the street scene and/or local environment, measures that are appropriate for one location may not be suitable for another. Also the impact of certain engineering measures on other highway users must be considered and it may be appropriate that some schemes also include 'softer' measures that aid other road users. Box 4.1 describes a simple engineering measure that if successful, we are seeking to expand across the county.

Box 4.1: 20mph Speed Limit Zones Outside Schools

Eight schools in Tamworth, which are located on busy main roads, have seen the introduction of part-time 20mph zones – some of the first in England to get approval. These part-time zones will only be in force between 8am-9am and 3pm-4pm during school term times.

Flashing 20mph signs act as a warning to drivers. This protects children at crucial times of the day whilst keeping the roads running freely throughout the day.

£200,000 a year has been set aside for the next four years to roll out part-time 20mph zones to schools located on busy main roads across Staffordshire.

Policy 4.1:

We will aim to deliver cost-effective remedial measures which improve safety:

- Where the benefit to the community of reactive work is considerable.

- Where investigation of collision clusters indicates an engineering solution that can be delivered within funding constraints.

- Where there is a significant flow of vulnerable road users, such as outside schools.

- Where we can demonstrate value for money in terms of the cost of the works related to cost of the collisions estimated to be saved (known as 'First Year Rate of Return').

The types of engineering measures that will be considered include:

- Signing and lining/marking.

- Coloured surfaces and surfaces with anti-skid properties.

- Altering speed limits and making Traffic Regulation Orders.

- Altering road layouts.

- Removing/re-siting street furniture sited in high risk locations.

- Traffic calming.

- Improving facilities for pedestrians and other vulnerable road users (such as crossing facilities, cycle lanes and tracks, advanced stop lines at traffic signals).

- Urban Traffic Management and Control.

- Roadside technology (such as Vehicle Actuated Signs, Variable Message Signs, casualty reduction cameras and other speed indication devices).

- Surface dressing programmes.

For further cost-effective remedial measures, please refer to the Staffordshire Cycling Strategy (Appendix M) and Staffordshire Walking Strategy (Appendix N).

Delivering Road Safety Education, Training and Publicity

Communication in various formats, using a variety of media, is vital to impart and reinforce road safety messages, and establish responsible attitudes and road user behaviour. Over the last 10 years many initiatives have been used, including the 'Stepping Out' training course, which is described in Box 4.2.

Box 4.2: Stepping Out

Originally developed and piloted in Staffordshire, this course has received positive feedback not only from Staffordshire schools, parents and pupils, but also from other local authorities that are now emulating the course.

Stepping Out provides basic pedestrian skills and has been developed to help children in Years 3 and 4 because it is at this age when many children are beginning to travel independently, and it is vitally important that they have the skills necessary to keep themselves safe near traffic. Training consists of classroom based activities and practical training at the roadside. Stepping Out has been run in Staffordshire since 1995 and over the last five years nearly 200 schools have taken part and over 24,000 children have received training.

Policy 4.2:

We will ensure that road safety education is targeted at the right level to those groups most at risk from being involved in road traffic collisions.

This will be achieved by:

· Supporting national and local road safety campaigns.

· Making road safety education resources available to schools, colleges and 'at risk' user groups.

· Delivering pedestrian training in primary schools in areas where collision rates are high.

· Supporting initiatives which encourage children and young people to travel safely and sustainably to school and college.

· Delivering cyclist training in primary and secondary/middle schools in areas where collision rates are high.

· Delivering pre and post driver/rider training and education resources targeted at young people, motorcyclists, people driving in the course of their work, and people convicted of driving offences.

· Providing training for fleet vehicle drivers and training for employers on managing occupational road risk.

· Promoting the use of public transport (bus and rail) which has a better safety record than other modes of travel.

Supporting Road Safety Enforcement

Encouraging road users to improve their behaviour by complying with road laws is crucial. This applies to all road laws but especially laws relating to speeding and drink/drug driving, which are a factor in a significant proportion of Staffordshire's road traffic collisions[11]. In order to ensure compliance with the law, enforcement and follow-up of offences are necessary. Enforcement must be systematic whilst sanctions must be effective and applied to all.

Policy 4.3:

We will work with partners to enforce road traffic laws.

This will be achieved by:

· Continuing to implement the Speed Limit Review on 'A' and 'B' roads[12].

· Working with the SSRP to provide and operate both fixed and mobile safety cameras at locations that can demonstrate casualty reduction benefits.

· Working with the SSRP to provide and operate speed indication devices.

· Supporting communities that want to operate Community Speed Watch in locations where speeding is a problem.

· Investigating and considering the need for red light enforcement cameras at traffic signals where infringement has been identified as an issue.

· Continuing to work with the local parking committees and local planning authorities to operate Civil Parking Enforcement (see Box 1.10 in Chapter 1 'Supporting Growth and Regeneration').

· Supporting Staffordshire Police in enforcing speed limits.

· Supporting Staffordshire Police in reducing other illegal driving activities/behaviour (such as driving under the influence of alcohol and/or drugs, failure to wear a seatbelt, using mobile phones whilst driving, driving defective vehicles and contravening Traffic Regulation Orders).

Reducing Crime, Fear of Crime and Anti-Social Behaviour

Reducing crime, fear of crime and anti-social behaviour is essential in order to make every journey safer. These barriers, which can be real or perceived, determine how, when and where travel occurs, as well as creating a sense of unease for transport staff. This can be particularly problematic for a number of population groups, including women, ethnic minorities and the elderly.

Policy 4.4:

We will adopt measures designed to reduce crime, fear of crime and anti-social behaviour on the highway network.

This will be achieved by:

- Ensuring that new transport schemes are designed to minimise opportunities for crime and disorder to occur.

- Working with the Crime Reduction Partnership and local communities to identify areas where the provision of street lighting and CCTV would benefit the perceived and actual level of crime and anti-social behaviour.

- Working with the Crime Reduction Partnership and local communities to identify locations where subway closure would benefit the perceived and actual level of crime and anti-social behaviour without negatively impacting upon accessibility and road safety considerations.

- Working with local planning authorities and developers through the Local Development Framework process to ensure that safety and security is incorporated into the design and layout of new developments.

- Promoting Staffordshire's good road safety and security record, as well as crime and disorder initiatives.

- Working with public transport operators to ensure that the safety and security of their passengers and staff is of paramount importance.

For further measures designed to reduce crime, fear of crime and anti-social behaviour, please refer to Appendices E and F.

Planning for, and Responding to, Damage Caused to Transport Infrastructure

There will always be events that cannot be planned for in advance and we must, where possible, try to predict where and when they may happen and when they do, reduce their impact on road user safety levels.

Policy 4.5:

We will plan for, and respond to, damage caused to the transport network where it poses a safety threat.

This will be achieved by:

- Maintaining the transport system and the wider public realm in a good state of repair.

- Continuing to work with the emergency services, the Highways Agency and neighbouring highway authorities to put in place a series of contingency options and diversion routes in the event of unplanned incidents on the highway, focusing on traffic sensitive roads.

- Working with the Staffordshire Resilience Forum to assess the threat of major incidents that may affect the transport network in order to ensure an appropriate level of preparedness.

- Making changes, in our capacity as a local transport authority and an owner of crowded places, to incorporate counter-terrorism protective security measures into the highway and wider public realm.

- Designing, building and maintaining the highway network to be more resilient to extreme weather such as flooding, and increased ice and snow.

- Designing, building and maintaining the highway network in order to protect highway users when events occur.

For further information about how we will plan for, and respond to, damage caused to the transport network, please see Chapter 5 'Reducing Road Transport Emissions and Their Effects on the Highway Network' and Appendix K.

4.6 Anticipated Outputs and Outcomes

Table 4.3 shows the anticipated benefits of this Strategy when combined with the delivery of the entire LTP Strategy Plan.

Table 4.3: Improving Safety and Security

Challenges	Policies	Outputs	Indicators	Targets
Improve the skills of all road users Improve the current road safety record Tackle crime, fear of crime and anti-social behaviour on the highway network Improve the resilience of the highway network to events that pose safety issues for highway users	Policy 4.1: We will aim to deliver cost-effective remedial measures which improve safety Policy 4.2: We will ensure that road safety education is targeted at the right level to those groups most at risk from being involved in road traffic collisions Policy 4.3: We will work with partners to enforce road traffic laws Policy 4.4: We will adopt measures designed to reduce crime, fear of crime and anti-social behaviour on the highway network Policy 4.5: We will plan for, and respond to, damage caused to the highway network where it poses a safety threat	Better designed road safety engineering More targeted road safety messages Less crime and instances of anti-social behaviour on the highway network More considerate road user behaviour Fewer locations where events are prone to occur which impact on highway users' safety Increased road user skills	Killed or seriously injured casualties (all) Killed or seriously injured casualties (child) Slight casualties (all) Child casualties (all) Motorcycle casualties (all) 16-25 year-old casualties (all) Public satisfaction with road safety locally	Reduce the number of people killed or seriously injured compared to the average for 2005-2009 Reduce the number of slight casualties compared to the average for 2005-2009

1 *A Safer Way: Consultation on Making Britain's Roads the Safest in the World, Department for Transport (2009).*

2 *As child KSI numbers are so low, we use a three-year rolling average.*

3 *This figure includes an allowance for damage-only collisions.*

4 *Road Casualties Great Britain, Department for Transport (2009).*

5 *This figure excludes journeys to and from work.*

6 *A Safer and Stronger Society Staffordshire Strategic Assessment 2009, Staffordshire Observatory (November 2009).*

7 *The Staffordshire Place Survey (2008/09) found that just over one-quarter of respondents felt that the Police and local council were dealing with the crime and anti-social behaviour which mattered to them in their area.*

8 *As a proxy we have looked at compensation paid to people who have received an injury or damage to their property as a result of an incident on Staffordshire's local road network. Over the last three years, the County Council has paid £2.3m for instances where it was found to be negligent.*

9 *Section 41 of the Highways Act 1980 states that a highway authority is under a duty to maintain those highways in the area for which it is responsible, which are highways "maintainable at the public's expense (public highways)". Section 58 provides a statutory defence against claims where it can establish that reasonable care has been taken to "secure that the part of the highway to which the action relates was not dangerous to traffic". A systematic process of highway safety inspections, intervention and repairs is necessary for the statutory defence.*

10 *We have a statutory duty under the Road Traffic Act 1988 to promote road safety.*

11 *In 2009, there were over 1,000 road traffic collisions in Staffordshire where speed was recorded as a contributory factor and over 100 collisions where the driver had either given a positive breath test or refused to take one. Technology does not exist to assess whether drugs have incapacitated someone's driving ability.*

12 *Also see the Staffordshire Speed Limit Policy, which can be downloaded from www.staffordshire.gov.uk/transport/roadsafety/speedlimit/.*

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Chapter 5

Reducing Road Transport Emissions and Their Effects on the Highway Network

Staffordshire
Local Transport Plan 2011

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5. Reducing Road Transport Emissions and Their Effects on the Highway Network

5.1 Key Facts

- 34% of CO_2 emissions in Staffordshire are from road transport.

- Between 2010/11 and 2019/20, it is estimated that the County Council could save £12.6m or 22,419t of CO_2 if it reduced its own CO_2 emissions by 2% per annum.

- Staffordshire has eight Air Quality Management Areas - all declared due to emissions from road transport.

- There are 316 known sites on Staffordshire's local highway network that are susceptible to flooding.

5.2 Challenges

- Reduce emissions from road transport.

- Respond to current and future climatic conditions.

5.3 Introduction

Vehicle emissions contribute to the concentration of gases in the atmosphere that cause climate change. They include carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O). Since 1990 greenhouse gas emissions from transport have increased by 12% and now make up 21% of total UK domestic emissions. Of this, road transport is by far the biggest source at 92%[1].

There is strong scientific evidence to suggest that the level of greenhouse gases in the atmosphere is causing the climate to change[2]. It is predicted that the UK will get warmer, with wetter winters and drier summers, and have more frequent and extreme weather events such as heatwaves and heavy rainfall[3]. With increasing frequency, these climatic changes will have both positive and negative impacts on transport. For example, heatwaves may encourage more people to walk and cycle but may also lead to the deformation of highway surfaces.

Transport systems will need to adapt to the changing climate. Both infrastructure and operations will need to be designed, built and maintained to be more resilient. Users will also need to be protected, especially from the results of extreme weather.

Vehicle emissions - including benzene, 1,3-butadiene, carbon monoxide (CO), nitrogen oxides (NO) and particulates (PM_{10}) - are also one of the main sources of local air pollution, particularly in urban areas, along busy roads and junctions. The main cost of air pollution arises from its effects on human health, with those suffering from heart and lung conditions such as asthma and bronchitis, being most at risk. Air pollution can also corrode buildings, bridges and painted surfaces. It can damage vegetation, threaten wildlife, produce unpleasant odours and reduce visibility.

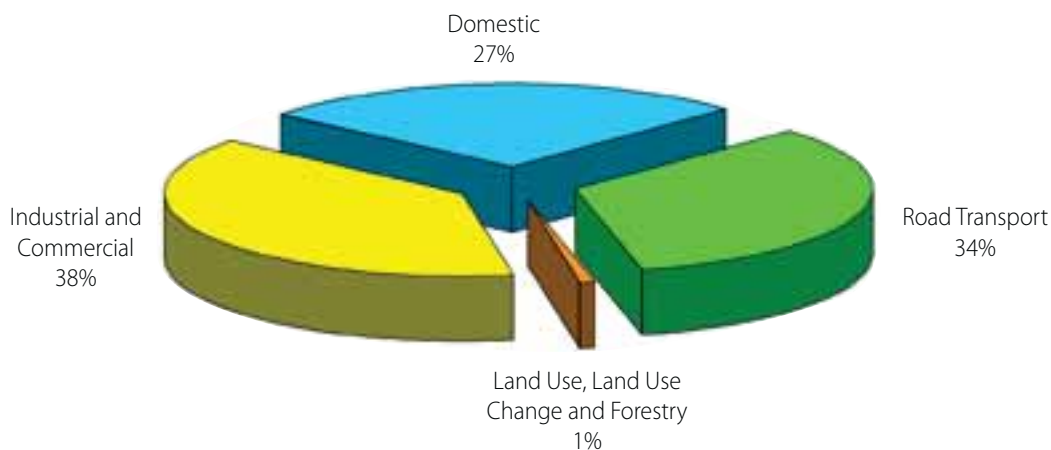Transport has a crucial role to play in addressing this Strategy's twin challenges. The policies set out in this Strategy will have a cumulative impact, and taking action to tackle climate change provides an excellent opportunity to deliver air quality improvements and vice versa. It also provides an opportunity for transport to contribute towards wider objectives around health, housing and the economy.

5.4 Scale of the Challenge

Climate Change in Staffordshire

In 2008, 7,546,900t of CO_2 was emitted in Staffordshire, equivalent to 9,100t of CO_2 per person. Of this, 34% came from road transport as shown in Graph 5.1 and this is above the national figure (26%).

Graph 5.1: Emissions by Sector in Staffordshire, 2008

Domestic
27%

Industrial and
Commercial
38%

Road Transport
34%

Land Use, Land Use
Change and Forestry
1%

Per capita road transport emissions in Staffordshire stand at 3,100t per person, which is significantly higher than the national average (2,100t per person)[4]. This is due to a combination of factors, including high car ownership and use, and Staffordshire having one of the longest (100km) and busiest motorway networks in the country (compared to other county councils). Motorways are used to move significant numbers of people and freight around the country but carry very little local traffic. Despite this, the level of Staffordshire's per capita road transport emissions is a concern as car travel in the county is considered by many a necessity and it is predicted to increase by 37% (to 9,146m vehicle km) in 2025 from a 2003 baseline[5].

Map 5.1 shows modelled CO_2 emissions across Staffordshire in 2008[6] and confirms that higher emissions occur along motorways and trunk roads, and in larger settlements.

Scientific analysis of evidence suggests that as a consequence of climate change, Staffordshire will progressively experience higher summer and winter temperatures, lower summer and higher (more intense) winter rainfalls, and earlier springs and later autumns[7]. This is likely to impact on the highway network and already we have identified over 300 sites on the local highway network that are susceptible to flooding.

Map 5.1
Carbon Dioxide Emissions in
Staffordshire, 2008

N

CHESHIRE EAST

A53

A523

Biddulph

Leek

A53

A520

A523

Newcastle -under- Lyme

City of Stoke -on- Trent

A52

Cheadle

A522

DERBYSHIRE

A51

A50

A53

Stone

Uttoxeter

M6

A51

A518

A519

Burton upon Trent

A515

Stafford

A518

TELFORD & WREKIN

Rugeley

A34

A460

A51

A38

Penkridge

A5

Cannock

Lichfield

LEICS

A449

A513

A460

M6 Toll

A51

Codsall

M54

A5

WEST MIDLANDS CONURBATION

A5127

Tamworth

SHROPSHIRE

A454

WARWICKSHIRE

Wombourne

A458

WORCESTERSHIRE

Emissions Level (tonnes) 1 x 1km

	80000 to 115000
	40000 to 80000
	20000 to 40000
	5000 to 20000
	0 to 5000
	Urban Areas

Source: AEA Technology plc (www.aeat.co.uk)

Although any one severe weather event cannot be attributed directly to climate change (as it refers to long-term patterns), an example of where a severe weather event did impact on the transport network is given in Box 5.1. Such events are likely to become more frequent in the future.

Box 5.1: Flooding Across Lichfield District During the Summer of 2007

The severity of flooding caused Lichfield District Council to declare a civil emergency, covering 17 hotspots, including 16 settlements and The National Memorial Arboretum. In total, 250 homes were affected, with some residents being evacuated. During the 25 days of the civil emergency, the County Council assisted in closing roads and clearing damage. The total cost of repairing the flood damage to the highway was in excess of £100,000.
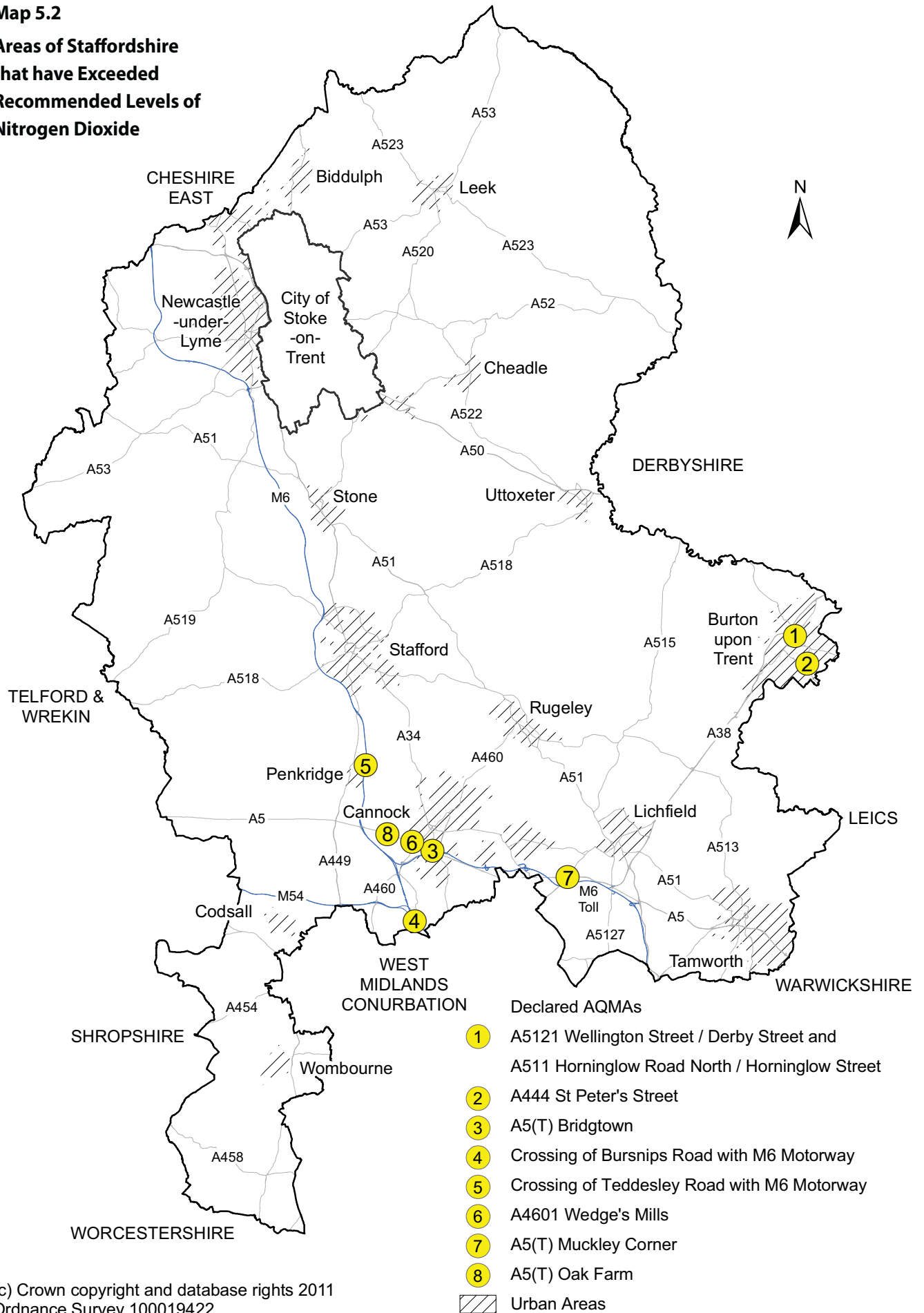

Air Pollution in Staffordshire

Air pollution is not a widespread problem in the county. The highest concentrations of PM_{10} and NO - the two main types of harmful air pollutants in Staffordshire - are found mainly in urban areas and along major trunk roads.

To date four local planning authorities have declared a total of eight Air Quality Management Areas (AQMAs) as shown in Map 5.2. Under Part IV of the Environment Act 1995, local planning authorities are required to review and assess local air quality. Where any one of nine prescribed air quality objectives are not met and where members of the public might reasonably be exposed, local planning authorities are required to declare an AQMA[8].

Only two AQMAs in Staffordshire lie on the local highway network and are the responsibility of the County Council and local planning authority to address; three lie on the strategic road network and are the responsibility of the Highways Agency and the local planning authority; and a further three lie on the strategic road network but incorporate local roads and therefore a more collaborative response is required. So far one air quality action plan has been prepared for two AQMAs in Burton upon Trent. A recent report commissioned by the Department for Environment, Food and Rural Affairs, said that measures put in place following the production of the action plan have had very limited impact[9]. Appendix O provides an overview of each AQMA in Staffordshire, together with information on the health impacts associated with road transport emissions.

Map 5.2

Areas of Staffordshire that have Exceeded Recommended Levels of Nitrogen Dioxide

CHESHIRE EAST

Biddulph

Leek

A53

A523

A53

A53

A520

A523

A52

Newcastle-under-Lyme

City of Stoke-on-Trent

Cheadle

A51

A53

A522

A50

DERBYSHIRE

Stone

M6

Uttoxeter

A51

A518

A519

A515

Burton upon Trent

Stafford

A518

Rugeley

TELFORD & WREKIN

A460

A38

A34

A51

Penkridge

Lichfield

LEICS

Cannock

A513

A449

A460

M6 Toll

A51

Codsall

M54

A5

Tamworth

A5127

WEST MIDLANDS CONURBATION

A454

WARWICKSHIRE

SHROPSHIRE

Wombourne

A458

WORCESTERSHIRE

N

Declared AQMAs

1 A5121 Wellington Street / Derby Street and A511 Horninglow Road North / Horninglow Street

2 A444 St Peter's Street

3 A5(T) Bridgtown

4 Crossing of Bursnips Road with M6 Motorway

5 Crossing of Teddesley Road with M6 Motorway

6 A4601 Wedge's Mills

7 A5(T) Muckley Corner

8 A5(T) Oak Farm

⌗ Urban Areas

The Staffordshire Air Quality Forum (SAQF) comprises all Staffordshire's local planning authorities, Stoke-on-Trent City Council, the Highways Agency and Staffordshire County Council. It aims to work in partnership to reduce emissions by implementing and harmonising cost-effective measures, and sharing information regarding air quality reviews and assessments.

5.5 Strategy

We have a crucial role to play in reducing the level of emissions from road transport in Staffordshire. However, we recognise our limitations. The impact of new technology, fuel efficiency advances, EU regulations and fiscal measures, will have a greater impact on reducing emissions than many of the measures that are within our control. Furthermore, a joined up, collaborative approach involving key partners is required if measurable reductions are to be achieved. We will need to work quickly with our partners as the long-term costs of inaction are far greater than the short-term costs of action. Areas that we, as a local transport authority can influence include:

• Promoting alternatives to private motor vehicles.

• Promoting the use of low-emitting vehicles and vehicle efficiency.

• Leading by example.

• Improving the resilience of the transport network to climate change.

Encouraging Alternatives to the Private Motor Vehicle

Encouraging alternatives to the private motor vehicle has the potential to bring about one of the largest reductions in emission levels from road transport. For short to medium distance travel, we need to make the least carbon intensive modes - walking, cycling and public transport - the most attractive options. To enable this to happen, towns and villages must exemplify sustainable living, with development being located and designed to minimise the need to travel (as well as enable the use of sustainable transport modes). Local planning authorities will be encouraged to embed accessibility, sustainability and climate change into their Local Development Frameworks and in individual planning decisions. We will work with local planning authorities to keep under review their car parking strategies, recognising the need to develop sustainable parking strategies which support the local economy.

Business should also play a role; they should reduce their employees' need to travel to work, as well as reduce their overall business mileage. Embracing flexible ways of working such as teleconferencing, satellite venues, nine-day fortnights and home-working[10] will help. The overall benefits of such measures can include reduced congestion and carbon emissions; the business benefits can include improved productivity, staff retention and recruitment, as well as reduced travel costs and overheads.

The way services are provided also has an impact on the need to travel by private motor vehicle. Encouraging service providers to take their services into communities or direct to people's homes will result in fewer journeys being made.

Discouraging travel by private motor vehicle can also be achieved by persuading people to travel in ways that are more sustainable. This includes smarter travel modes, which aim to improve the physical and mental well-being of those who use them, together with the environment in which they live. Public transport (bus and rail), car share schemes, car clubs, cycling and walking are all smarter travel modes. Between 2003/04 and 2008/09, the mode share of smarter travel modes in Staffordshire had decreased in terms of both trips per person per year and distance travelled per person per year from 28% to 21% and 6% to 3%, respectively. This is an undesirable trend that will be tackled through encouraging more people to use smarter travel modes for a greater proportion of their journeys, especially their shorter journeys.

Policy 5.1:

We will promote alternatives to private motor vehicles.

This will be achieved by:

• Investing in measures to improve conditions for pedestrians and cyclists, particularly in urban areas where a real opportunity for modal change exists.

• Encouraging major employers to develop travel plans as a way of managing travel to and from work in a sustainable way.

- Encouraging local planning authorities to secure development patterns and mixes that reduce the need to travel and enable the use of smarter travel modes.

- Supporting new development that includes or is located in areas with good public transport links, well-connected to walking and cycling networks and facilities, and where the demand of 'place' and 'movement' is considered together.

- Working with local planning authorities and developers to mitigate impacts of development in less sustainable locations but which is essential to support regeneration and economic growth.

- Promoting the financial and environmental benefits to businesses of adopting flexible working practices, especially in areas where traffic levels are approaching their capacity, where future development is expected, in AQMAs or where the workforce travels some distance to get to work.

- Ensuring transport and access is considered at an early stage in service design and delivery.

- Raising awareness of the financial, environmental and social benefits of taking services to communities/people.

- Sharing information about improving local air quality through the SAQF.

- Promoting the financial, environmental and health benefits of smarter travel modes to individuals, especially in areas where traffic levels are approaching their capacity, where future development is expected or in AQMAs.

- Promoting (and running) schemes that encourage the take up of smarter travel modes.

- Encouraging local planning authorities to keep their car parking strategies under review.

- Introducing Traffic Regulation Orders (such as clear zones, low-emission zones and no stopping/parking zones), subject to there being suitable alternative routes, especially in urban areas, AQMAs, and areas given specific environmental designation such as Special Areas of Conservation (SAC) and Areas of Outstanding Natural Beauty (AONB).

Promoting the Use of Low-Emitting Vehicles and Vehicle Efficiency

As cars are likely to remain the dominant mode of transport in Staffordshire, measures that improve their environmental performance must be supported. If, as predicted, there is an increase in investment into technologies for cars that run on alternative fuels such as hydrogen, biofuel and electricity, then we should encourage their use. However, industry support and national vehicle purchase incentives will play a much greater role in realising their full potential.

The commercial sector must also be encouraged to use lower emitting vehicles. Whilst much of what can be achieved will be through the manufacture and design of commercial vehicles, businesses can be encouraged to embrace new vehicle technologies, best practice and recognise the economic advantages of more efficient operations. We can promote the fact that taking action on climate change can enhance a business's reputation and increase its customer loyalty. It has been suggested that some consumers are willing to pay more for products from companies that can demonstrate their green credentials.

Policy 5.2:

We will promote the use of low-emitting vehicles and vehicle efficiency.

This will be achieved by:

• Investigating measures that will encourage the adoption of low-emitting vehicles such as the installation of electric vehicle charging points in pilot areas.

• Encouraging individuals to purchase low-emitting vehicles and undertake eco-driver training[11].

• Investigating the possibility of giving low-emitting vehicles greater road priority.

• Delivering the priorities and actions contained in the Staffordshire Freight Strategy (Appendix L).

• Encouraging businesses with a company car fleet that when replacing vehicles they consider purchasing lower emitting vehicles, put their drivers through eco-driver training and minimise their business mileage.

• Encouraging public transport operators that when replacing vehicles they consider purchasing lower emitting vehicles and put their drivers through eco-driver training.

• Lobbying Government, Network Rail and train operating companies to electrify more of the county's rail lines.

• Creating Freight Quality Partnerships where partners are willing and benefits are identifiable.

Policy 5.3:

We will lead by example and reduce our own road transport emissions.

This will be achieved by:

• Replacing our vehicles (when required) with ones that are less polluting and more fuel efficient, wherever possible (see Box 5.2).

• Assessing our essential car user criteria to ensure that it is fit for purpose.

• Reviewing our staff car parking facilities.

• Continuing to develop initiatives, such as flexible working, that reduce the need for employees to use their cars to get to work.

• Investigating the introduction of eco-driver training for some essential car users.

• Ensuring all main council offices have access to a pool bicycle and/or car.

• Using recycled and locally sourced materials whenever possible in County Council highway construction and maintenance schemes.

• Delivering other priorities contained within the County Council's Travel Plan (available on request).

Leading by Example

The County Council has an ambitious target to reduce its overall CO_2 emissions by 80% by 2050 from a 1990 baseline. In order that we meet this, we need to lead by example and demonstrate what is achievable through best practice. If the County Council adopts further measures to reduce its overall CO_2 emissions by 2% per annum between 2010/11 and 2019/20, then it is estimated that £12.6m or 22,419t of CO_2 could be saved[12].

Box 5.2: Staffordshire Highways' Community Teams Cut their Carbon Footprint

Staffordshire Highways partner Enterprise has invested in a brand new zero emission electric van in an effort to reduce its environmental impacts. The Modec electric van is being used to deliver extra local improvements by the Staffordshire Highways' Community Teams. The environmentally friendly vehicle has zero road tax, zero emissions, zero noise pollution and is 100% electric. Compared to a conventional diesel van the Modus will save over 7.4t of CO_2 per year. The vehicle is ideal for use in urban environments such as Stafford town centre.

Improving the Resilience of the Transport Network to Climate Change

Despite efforts to reduce greenhouse gas emissions, the general consensus is that some degree of climate change is now inevitable. Changes are likely to result in an increased risk of flooding, storm damage, droughts and heatwaves, together with secondary consequences such as increased incidence of ground instability and movement, and periods of poor air quality in summer. Highway infrastructure such as embankments, cuttings and bridges will be particularly vulnerable. Infrastructure on or near to the highway such as street lights, trees and road signs may also be affected by extreme weather conditions, such as high winds, and may cause disruption to the network.

Existing infrastructure and operations will need to be assessed and where necessary, re-designed to become more resilient to a changing climate. The design, location and construction of new infrastructure must withstand climatic conditions anticipated over its lifespan. However, care must be taken to ensure that any measure does not exacerbate problems such as the risk of flooding. Measures must also be cost-effective, demonstrate value for money and where possible, create efficiency savings.

Policy 5.4:

We will improve the resilience of the transport network to changing climatic conditions.

This will be achieved by:

- Delivering the priorities contained within the Council's Climate Change Adaptation Strategies (www.staffordshire.gov.uk).

- Assessing, managing and minimising risks posed by climate change to people and property where it relates to the transport network.

- Managing disruption and ensuring rapid recovery of the transport network from the impact of a climate change related event.

- Encouraging all owners of the transport network to manage, maintain and develop it with climate change in mind.

- Supporting new development that has been designed with climate change in mind by, for example, including green space, tree planting[13] and artificial shade.

5.6 Anticipated Outputs and Outcomes

Table 5.1 shows the anticipated benefits of this Strategy when combined with the delivery of the entire LTP Strategy Plan.

Table 5.1: Reducing Road Transport Emissions and Their Effects on the Highway Network

Challenges	Policies	Outputs	Indicators	Targets
Reduce emissions from road transport Respond to current and future climatic conditions	Policy 5.1: We will promote alternatives to private motor vehicles Policy 5.2: We will promote the use of low-emitting vehicles and vehicle efficiency Policy 5.3: We will lead by example and reduce our own road transport emissions Policy 5.4: We will improve the resilience of the transport network to changing climatic conditions	More people walking, cycling and using public transport for short to medium distance journeys More people using trains, coaches, and car sharing for long distance journeys Land-use policies that promote walking, cycling and the use of public transport Greater use of low-emitting motor vehicles Less people affected by poor air quality Less disruption to the transport network as a result of extreme weather	CO_2 emissions Per capita road transport emissions (CO_2) Road mileage travelled Bus patronage numbers Mode share of journey to school	Reduce per capita road transport emissions (CO_2) from a 2008 baseline

1 National Atmospheric Emissions Inventory (IPCC categories), 2009.

2 It is very likely that man-made greenhouse gas emissions caused most of the observed temperature rise since the mid 20th century, where 'very likely' equals >90% certainty (UKCIP 2009).

3 UK Climate Projections 09 (UKCP09) http://ukcp09.defra.gov.uk.

4 Local CO_2 emission estimates for 2006-2008, produced by AEA Technology plc for the Department of Energy and Climate Change.

5 Estimated traffic flows (million vehicle km) for cars by local authority: West Midlands 1993-2008, DfT National Road Traffic Survey. Growth factors have been applied to a 2003 base. These have been calculated following TAG Unit 3.15.2 Guidance (Using Tempro without a formal Model which incorporates the use of National Traffic Model Forecasts).

6 Compiled from the National Atmospheric Emissions Inventory.

7 A Hard Rain, Staffordshire County Council's Corporate Climate Change Strategy, Second Edition (2007).

8 The Air Quality Strategy 2007 for England, Scotland, Wales and Northern Ireland sets health-based standards for nine air pollutants known to harm human health and which occur widely throughout the UK, and objectives for their achievement.

9 Review of Local Air Quality Management - A report to Defra and the devolved administrations, Michael Faulkner and Priscilla Russell (March 2010).

10 County Council research has found that home working should only be considered for individuals who travel more than 24.9km (round trip) to their workplace as the amount of CO_2 emitted by staying at home would be less than the amount of CO_2 emitted by travelling to work by car, assuming their home is gas heated.

11 The Energy Saving Trust suggest that teaching experienced drivers to make simple improvements to their driving style, can help them reduce most drivers' fuel consumption by around 15%.

12 The calculations of these figures are based on a number of dynamic variables such as projected trends in fuel pump prices and are therefore, subject to change.

13 Trees can also reduce street level particulates by as much as 60%. Coder, Dr. Kim D., "Identified Benefits of Community Trees and Forests", University of Georgia, October, 1996. When the authority fells a tree it will plant a new sapling somewhere else in the county.

Chapter 6

Improving Health and Quality of Life

Staffordshire
Local Transport Plan 2011

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6. Improving Health and Quality of Life

6.1 Key Facts

- Less than one quarter of adults in Staffordshire achieve the recommended level of physical activity.

- 1 in 4 adults and 1 in 5 children in Year 6 (10-11 year-olds) in Staffordshire are defined as obese[1].

- 22% of people aged over 65 years in Staffordshire describe themselves as 'not in good health'.

- Of the people living in Staffordshire who travel less than 2km to work, 53% make this journey by car, rising to 80% for journeys between 2km and 5km.

- 95% of Staffordshire residents are satisfied with their local area as a place to live and 90% strongly feel that they belong to their immediate neighbourhood.

6.2 Challenges

- Encourage active travel.

- Maximise opportunities for transport to positively contribute towards people's quality of life.

6.3 Introduction

Transport can impact on people's health and quality of life in both positive and negative ways. Transport can increase access to a range of services (including healthcare) and provides a means of exercise. Conversely, transport can lead to road traffic injuries, poor air quality and unwelcome noise. There are significant inequalities in the impact of transport on the health of individuals and communities. These inequalities can manifest geographically, socially and across different population groups.

It is recognised that transport's contribution towards improved health and quality of life may be marginal. Other factors, such as income and housing, probably play a greater role and their responsibility lies with other agencies, as well as with individuals themselves.

6.4 Scale of the Challenge

Health Impact Assessment

A Health Impact Assessment (HIA) has been conducted alongside this Strategy Plan (Appendix E). It examined the potential impact of the Strategy Plan's policies on the health of residents and the distribution of those impacts across the population. Measures to reduce the negative impacts have been identified, together with measures to promote the positive impacts.

Table 6.1 highlights the main (positive) impacts that the LTP has on health and quality of life, and the main population groups most likely to be (negatively) affected by the impacts of the LTP. More information about these impacts is given in Appendices E and P. Transport can also have other negative impacts on health and quality of life, including noise, air quality and light pollution, and these are dealt with in Chapter 5 'Reducing Road Transport Emissions and Their Effects on the Highway Network' and Chapter 7 'Respecting the Environment'.

6.5 Strategy

Whilst we have a role to play in improving the health and quality of life of Staffordshire's residents and visitors, we are limited to the extent that we, as the local transport authority, can contribute[2]. Other organisations, especially within the health sector, are able to make far greater contributions towards this objective. Areas that we, as the local transport authority, can influence are:

- Getting more people walking and cycling.

- Supporting access to services.

- Enabling community cohesion.

- Reducing the number and severity of road traffic collisions.

- Reducing the impact of traffic noise.

- Reducing emissions from road transport.

- Reducing the impact of artificial light.

Table 6.1: The main (positive) impacts of the LTP on health and quality of life, and the main population groups most likely to be (negatively) affected by the LTP

Impacts
Physical activity
Access to services and open spaces
Community cohesion
Population Groups
Older people
Children
People with disabilities
People with low incomes

Getting More People Walking and Cycling

Walking is a free, reliable and healthy way to travel, it contributes to creating vibrant places and feelings of safety, and gives individuals access to open spaces. Whilst the county has over 4,000km of on-road footways and 4,400km of off-road footpaths, the 2001 Census showed that of the people living in the county who travelled less than 2km to work, 53% made this journey by car. The distance considered acceptable for walking varies according to the individual, the topography and the journey purpose. However, the Institute of Highways and Transportation suggests that for most people, the preferred maximum commuting walking distance is 2km. Box 6.1 describes one method that can be used to encourage more people to walk.

Box 6.1: Walking Challenge 2009

In autumn 2009 Staffordshire County Council, together with the West Midlands Regional TravelWise Group, issued a challenge to its staff - to walk twice around the West Midlands without leaving Staffordshire. The competition involved individuals and teams, counting how many steps they walked each day. Over 700 County Council employees took part and clocked up 18,500 miles, equating to 59 times around the West Midlands or to the South Pole and back. The challenge aimed to encourage staff to build physical activity into their daily life in order to improve concentration, reduce stress, improve health and give them a 'feel good' factor.

Box 6.2: Stafford Grand Prix

School children from Barnfields Primary School in Stafford who undertook the Bikeability course had an important role to play in the town's first ever cycling Grand Prix. British Cycling hosted the Grand Prix, a major event in the cycling calendar, attracting professional cyclists from around the UK. The children were picked to take part in the prestigious event after successfully completing Level 2 of the Bikeability course. The children aged 10-11 years opened the race by cycling one lap of the circuit.

Cycling is sustainable, cheap and healthy, and also gives individuals access to open spaces. The county has over 260km of cycle lane (excluding over 80km of National Cycle Network and 185km of canal towpath that can be cycled along). The 2001 Census showed that of the people living in Staffordshire who travelled less than 5km to work, 80% made this journey by car. The distance considered acceptable for cycling varies according to the individual, the topography and the journey purpose. However, the European Cyclists' Federation suggests that most cycle journeys within urban environments are less than 5km. Box 6.2 describes how children can be encouraged to cycle more often and more safely.

Policy 6.1:

We will create a physical and cultural environment in which everyone feels confident to walk and cycle.

This will be achieved by:

- Meeting the aims and policies contained in the Staffordshire Cycling Strategy (Appendix M).

- Meeting the aims and policies contained in the Staffordshire Walking Strategy (Appendix N).

- Meeting the policies contained in the Staffordshire Rights of Way Improvement Plan (Appendix Q).

Supporting Access to Services

Improving access to shops selling healthy foods, healthcare services, and leisure and social facilities is vital if the county is to see an overall improvement in the health and quality of life of its population. Staffordshire has previously been identified as an area where some people have difficulty accessing healthy diets[3], healthcare services[4], and leisure and social facilities[5].

Policy 6.2:

We will help residents to access services.

This will be achieved by:

• Improving integration between transport and land-use planning (see Policy 3.1).

• Improving bus services (see Policy 3.2).

• Supporting residents with mobility difficulties and those without access to a private motor vehicle (see Policy 3.3).

• Improving and integrating 'other' transport services (see Policy 3.4).

For further information about how we plan to improve access to services, please see Chapter 3 'Making Transport Easier to Use and Places Easier to Get to' and Appendix F.

Enabling Community Cohesion

The concept of community cohesion refers to the quantity and quality of interactions among people in a community as indicated by the degree to which residents know and care about their neighbours. Whilst community cohesion is to some degree a matter of individual preference, transport decisions can affect community cohesion by influencing the location of activities and the quality of the public realm, and therefore the ease with which neighbours meet and build positive relationships. Box 6.3 describes how local people have taken positive action to improve their local area.

Box 6.3: Walkway 'Gets a Make Over'

The Highfields Farm Residents' Association identified a walkway on their estate that had become overgrown and prone to anti-social behaviour, and was a priority for them in terms of lower order highway improvements (also see Box 2.5 in Chapter 2 'Maintaining the Highway Network'). After the walkway was cleared, the Secretary of the Highfields Farm Residents' Association said "it gives people a sense of pride in the area they live in and may make others appreciate and respect it also. It is nice for residents to have the opportunity to have contact with Staffordshire Highways and for 'jobs' to be seen to be done".

In Staffordshire, freight movements are often raised as a key local concern affecting community cohesion and quality of life. Noise, fumes, vibration, speed and use of unsuitable roads are frequently highlighted. Despite this and a number of other local issues, such as speeding and fear of crime while using the highway network, virtually all of the county's residents (95%) are satisfied with their local area as a place to live and 90% strongly feel that they belong to their immediate neighbourhood[6].

Policy 6.3:

We will support community cohesion.

This will be achieved by:

- Helping residents access services (see Policy 6.2).

- Reducing crime, fear of crime and anti-social behaviour (see Policy 4.4).

- Reducing the negative impact of traffic related noise (See Policy 6.5).

- Improving road safety (see Policies 6.4, 4.1, 4.2, 4.3 and 4.5).

For further information about how we plan to improve community cohesion, please see Chapter 3 'Making Transport Easier to Use and Places Easier to Get to', Chapter 4 'Improving Safety and Security' and Appendix L.

Reducing the Number and Severity of Road Traffic Collisions

In 2009 there were 45 fatalities on roads in Staffordshire, with a further 216 people seriously injured and 3,145 slightly injured. In addition, 21 children were killed or seriously injured.

Policy 6.4:

We will improve Staffordshire's road safety record.

This will be achieved by:

- Delivering engineering measures (see Policy 4.1).

- Delivering road safety education, training and publicity (see Policy 4.2).

- Supporting road safety enforcement (see Policy 4.3).

For further information about how we plan to improve Staffordshire's road safety record, please see Chapter 4 'Improving Safety and Security'.

Reducing the Impact of Traffic Noise

Motorised transport is a common source of noise pollution, with road traffic being the most common. Traffic noise contributes to stress-related health problems such as hypertension and minor psychiatric illness. It can also cause loss of sleep and can interfere with concentration. Certain traffic calming features, particularly those using vertical deflections such as speed cushions, road humps and those resulting in stopping and accelerating manoeuvres, have lead to complaints about the increased noise from road traffic.

Noise from road traffic can also have positive road safety benefits in that it alerts pedestrians, cyclists and horse riders of approaching traffic. For further information about traffic noise in Staffordshire, please see Appendix E.

Policy 6.5:

We will reduce the negative impact of traffic-related noise.

This will be achieved by:

* Working with appropriate partners (such as local planning authorities, bus and rail operators, airport operators, Defra and the Highways Agency) to prepare and deliver noise action plans when required.

* Working with local planning authorities and developers through the Local Development Framework process to minimise the impact new developments may have on local noise levels.

* Using stone mastic asphalt on all our highways.

* Considering the following measures:

  – Erecting barriers to deflect noise in proximity of residential areas (having regard to alternatives, their visual impact and other site specific considerations).

  – Ensuring new development adopts a three-dimensional approach to the layout of buildings and intervening spaces.

  – Promoting smoother and considerate driving styles by individuals and organisations.

  – Designing traffic calming schemes that minimise noise generation such as avoiding features that involve a vertical deflection wherever possible.

Reducing Emissions from Road Transport

Vehicle emissions can cause localised air pollution. The main cost of air pollution arises from its effects on human health, with those suffering from heart and lung conditions such as asthma and bronchitis, being most at risk.

Policy 6.6:

We will reduce emissions from road transport.

This will be achieved by:

* Promoting alternatives to private motor vehicles (see Policy 5.1).

* Promoting the use of low-emitting vehicles and vehicle efficiency (see Policy 5.2).

* Ensuring the County Council leads by example and reduces its own road transport emissions (see Policy 5.3).

For further information about how we plan to improve air quality, please see Chapter 5 'Reducing Road Transport Emissions and Their Effects on the Highway Network'.

Reducing the Impact of Artificial Light

Artificial light that is allowed to illuminate areas not intended to be lit can contribute to stress-related health problems and loss of sleep. However, street lighting also plays a valuable role during the hours of darkness, protecting people and property, and enhancing the night-time environment to encourage greater use of local facilities in the evenings.

Policy 6.7:

We will reduce the negative impact of artificial light.

This will be achieved by:

- Managing street lighting in a sustainable manner.

- Following the guidance set out in 'Lighting Works within Conservation Areas and in the Vicinity of Listed Buildings'.

- Maintaining lighting levels in accordance with the principles set out in 'Well-lit Highways – Code of Practice for Highway Lighting Management' and Institution of Lighting Engineers' Technical Reports, as well as industry best practice (www. ukroadsliaisongroup.org).

For further information about how we plan to reduce the negative impact of artificial light, please see Chapter 2 'Maintaining the Highway Network' and Chapter 7 'Respecting the Environment'.

6.6 Anticipated Outputs and Outcomes

Table 6.2 shows the anticipated benefits of this Strategy when combined with the delivery of the entire LTP Strategy Plan.

Table 6.2: Improving Health and Quality of Life

Challenges	Policies	Outputs	Indicators	Targets
Encourage active travel Maximise opportunities for transport to positively contribute towards people's quality of life	Policy 6.1: We will create a physical and cultural environment in which everyone feels confident to walk and cycle Policy 6.2: We will help residents to access services Policy 6.3: We will support community cohesion Policy 6.4: We will improve Staffordshire's road safety record Policy 6.5: We will reduce the negative impact of traffic-related noise Policy 6.6: We will reduce emissions from road transport Policy 6.7: We will reduce the negative impact of artificial light	More people walking More people cycling A healthier population Less people affected by air, noise and light pollution Increased sense of community	Obesity levels (all) Obesity levels (child) Frequency of exercise to recommended level Mode share of journey to school Levels of recreational cycling	Maintain levels of recreational cycling from a 2009/10 baseline

1 Obesity is when an adult is carrying too much body fat for their height and sex. A person is considered obese if they have a Body Mass Index (BMI) of 30 or greater. A child is obese if their BMI is above the 95th centile of the reference curve for their age and sex according to the UK BMI centile classification (Cole TJ, Freeman JV, Preece MA. Body mass index reference curves for the UK, 1990. Arch Dis Child 1995; 73: 25–29). A child's height (in metres), weight (in kilograms), date of birth and sex are needed to calculate their BMI.

2 The recent White Paper, Healthy Lives Healthy People (November 2010) will impact upon the role of local authorities. The Paper stated that directors of Public Health will be employed by local authorities and will be ambassadors of health issues for local communities. In practice, this means that they will lead discussions about how ring-fenced money is spent to improve health. This will include influencing investment decisions right across the local authority with the goal of enhancing health and well-being.

3 The ability of Staffordshire's population to access food and a healthy diet was investigated in some depth in a study which we conducted in partnership with the National Consumer Council in 2005. Findings of the study are published in 'Putting Food Access on the Radar: How to Target and Prioritise Communities at Risk'. (National Consumer Council).

4 Inadequate public transport is by far the most frequently mentioned transport problem identified by people who have difficulty getting to healthcare facilities such as GP surgeries and hospitals.

5 The Children's and Young People's Plan for Staffordshire highlights a significant need for young people to access high quality leisure, cultural and sport experiences.

6 Feeling the Difference Survey, April 2009 and April 2010, Staffordshire Police.

Chapter 7

Respecting the Environment

Staffordshire
Local Transport Plan 2011

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7. Respecting the Environment

7.1 Key Facts

- Staffordshire has over 400 heritage assets that are associated with the highway network.

- Approximately 1,000km of roadside verge in Staffordshire Moorlands is carefully managed due to its importance for biodiversity.

- 35% of Staffordshire's land area is designated as Green Belt.

- Cannock Chase Area of Outstanding Natural Beauty and part of the Peak District National Park lie within Staffordshire.

- Staffordshire has 13 sites of international importance, 65 Sites of Special Scientific Interest, and over 800 local sites of valued biological diversity.

7.2 Challenges

- Minimise the impact of transport on the environment.

- Enhance the environment through the management and maintenance of the highway network.

7.3 Introduction

The highway network and levels of traffic use can have a range of impacts on the environment. For example, road realignment works may damage important local wildlife habitats and, on the other hand, a sensitively designed street, free of unnecessary clutter, can have a positive impact on the built environment. Historically, the impact of traffic and highway activities on the environment was an afterthought, with the vast majority of activities focusing on creating social benefits (such as increased safety or access to services) or economic benefits (such as reduced journey times and better access to markets).

Over the last two decades, greater attention has been paid to the impact of traffic and highway activities on the environment. A Strategic Environmental Assessment has been carried out on this Strategy Plan (Appendix G). It has identified the environmental effects of implementing the Strategy Plan, identified how to avoid, manage or mitigate significant adverse

effects, and identified any positive effects. A Habitats Regulations Assessment has also been carried out with regards to the effects of LTP implementation on sites of international importance for biodiversity (Appendix H).

7.4 Scale of the Challenge

Staffordshire's Natural Assets

Staffordshire has an incredibly wide range of different landscapes, many of the highest quality and of importance for their wildlife interest. These natural assets can be found in both rural and urban areas, and many have specific environmental designations and protection due to their importance. They include:

- 13 sites of international importance (including eight Special Areas of Conservation (SACs), one Special Protection Area (SPA) and four Ramsar sites).

- 65 Sites of Special Scientific Interest (SSSI).

- Over 800 Sites of Biological Importance (SBI).

- 69 Regionally Important Geological Sites (RIGS) (including some rail and road cuttings).

- Over 40 Local Nature Reserves.

- Over 6,500ha of ancient woodland or ancient woodland sites that have been re-planted and retain some important features.

Cannock Chase Area of Outstanding Natural Beauty (AONB) and parts of the National Forest and Peak District National Park are also within the county, together with 6,000 acres of country parks, including many designated historic parks and gardens such as Trentham Gardens, Sandon Park, Weston Park, Chillington Park, Enville Park, Shugborough Park and Biddulph Grange.

There are three areas of Green Belt within Staffordshire, which cover around 35% of the county's land area. One area surrounds the North Staffordshire Conurbation (37,919ha); the second area is north and west of the West Midlands Conurbation (54,387ha); and a further 39ha is located near to Burton upon Trent in East Staffordshire. Many of the county's naturally important areas have roads either running through them or

very close by. For example, the A53 between Leek and Buxton passes through the Peak District National Park, the South Pennine Moors SAC and Peak District Moors SPA. Cannock Chase AONB is in close proximity of the A34, A513, and the A460, as well as a number of local roads. Pasturefields SAC adjoins the A51, and the Cannock Extension Canal SAC is close to the A5, M6, and the B4154. Also, many of these areas have rights of way running through them and their impact on these assets should not be under-estimated as described in Box 7.1.

Box 7.1: Cannock Chase AONB and SAC

The AONB is the second smallest in the country covering 6,905ha and it is claimed to be "one of the most threatened"[1]. It is an important area for recreation and has 1.9m people living within 30km. Over 1,200ha of the AONB has been designated a SAC. The SAC's Evidence Base Report (2009) states roads crossing the Chase are used by commuters and, with the increased development in the area, there is likely to be a detrimental impact on the heathland from road transport emissions. The AONB Management Plan promotes 'positive management', whereby visitors are directed towards areas that are the least vulnerable and most capable of absorbing impacts. The Management Plan and the Cannock Chase SAC Visitor Impact Mitigation Strategy, identify a number of mitigation measures including traffic calming and enhanced public transport.

We own over 2,200,000^{2}m of urban and nearly 6,000km of rural roadside verges, which are often called the 'soft estate'. It is made up of a range of habitat types, including sites of national importance, designated for their wildlife and natural features. Approximately 1,000km of roadside verge in Staffordshire Moorlands are carefully managed due to their importance for biodiversity. These verges are cut once or twice a year usually during late summer and autumn after the flowers have set seed. However, where they are present on bends or junctions then safety takes priority over cutting regimes.

Soil and water also form part of Staffordshire's natural assets and the highway network and levels of traffic use can affect their quality. Road traffic releases airborne pollution and spray that can cause deterioration in soil quality. Road run-off can increase the risk of flooding and soil erosion, and can contain pollutants such as fuel oils and gritting salts that pollute receiving watercourses. Further information about the condition of soil and watercourses in Staffordshire, and how transport can impact upon them, is contained in Appendix G.

Staffordshire's Cultural Heritage

Cultural heritage represents the physical evidence of our past and of the interaction between humans and the environment. It includes historic buildings and structures, archaeology, historic landscapes and townscapes, and reflects an area's distinct character, providing a sense of identity and belonging for its community. These are referred to as the county's heritage assets and information relating to them is incorporated into the Staffordshire Historic Environment Record (HER) (www.heritagegateway.org.uk). The HER contains information on 13,000 heritage assets of which over 430 are associated with the highway. These mainly include structures such as mile markers and bridges. The condition of these assets for which the County Council is directly responsible, has been monitored through a Buildings at Risk survey since 2005.

7.5 Strategy

Looking after Staffordshire's natural assets and cultural heritage is shared. Local highway and planning authorities, parish councils, voluntary and charitable organisations, non-departmental public bodies (such as English Heritage and Natural England) and private individuals, all play a role in their protection. However, areas that we, as the local transport authority, can influence are:

- Reducing road transport emissions.

- Reducing the negative impact of traffic noise.

- Reducing the negative impact of artificial light.

- Minimising flooding, soil erosion and pollutants entering watercourses.

- Minimising the risk of soil contamination.

- Improving townscapes and heritage assets on the highway.

- Enhancing the quality of rural landscapes and the biodiversity associated with them.

- Protecting the network of internationally significant nature conservation sites.

Working towards these areas will have far-reaching benefits and contribute to the economic, social and environmental well-being of Staffordshire's communities as well as maintaining and enhancing the county's distinctive character. However, in delivering this Strategy Plan, a balance must be struck between safety and conservation, with safety almost always taking priority over conservation. In addition, with limited resources, doing less to a high standard is better than compromising. Value for money is also crucial and any investment must be protected with adequate provision for maintenance.

Reducing Road Transport Emissions

Traffic releases pollutants into the air that can affect local air quality and potentially affect human health and local biodiversity. Whilst we have a role to play in reducing the level of emissions from road transport in Staffordshire, we recognise our limitations as outlined in Chapter 5 'Reducing Road Transport Emissions and Their Effects on the Highway Network'.

Policy 7.1:

We will reduce emissions from road transport.

This will be achieved by:

- Promoting alternatives to private motor vehicles (see Policy 5.1).

- Promoting the use of low-emitting vehicles and vehicle efficiency (see Policy 5.2).

- Ensuring the County Council leads by example and reduces its own road transport emissions (see Policy 5.3).

For further information about how we plan to improve air quality, please see Chapter 5 'Reducing Road Transport Emissions and Their Effects on the Highway Network'.

Reducing the Negative Impact of Traffic Noise

Motorised traffic noise can have both positive and negative impacts as described in Chapter 6 'Improving Health and Quality of Life'. Noise only becomes a problem when it is intrusive and unwelcome. What some people might consider excessive, others may not and in some situations, what noise levels people consider as non-intrusive, may be detrimental to wildlife.

Policy 7.2:

We will reduce the negative impact of (road) traffic-related noise.

This will be achieved by:

- Working with appropriate partners (such as local planning authorities, bus and rail operators, airport operators, Defra and the Highways Agency) to prepare and deliver noise action plans when required.

- Working with local planning authorities and developers through the Local Development Framework process to minimise the impact new developments may have on local noise levels.

- Using stone mastic asphalt on all our highways.

- Considering the following measures:

  - Erecting barriers to deflect noise in proximity of residential areas (having regard to alternatives, their visual impact and other site specific considerations).

  - Ensuring new developments adopt a three-dimensional approach to the layout of buildings and intervening spaces.

  - Promoting smoother and considerate driving styles by individuals and organisations.

  - Designing traffic calming schemes that minimise noise generation such as avoiding features that involve a vertical deflection wherever possible.

For further information about the impact of (road) traffic-related noise, please see Chapter 6 'Improving Health and Quality of Life'.

Reducing the Negative Impact of Artificial Light

For the most part, light at night provides valuable benefits; it is something that we deliberately seek and can be an essential aid to safety and security. However, wherever artificial light floods into the natural world there is the potential for some aspect of life and its rhythms - migration, reproduction, feeding - to be affected. For instance, artificial light is known to cause confusion to migrating birds and it has an effect on the feeding behaviour of bats caused by insects clustering around outdoor light sources. Also, satellite data shows that nationally, light pollution is increasing and spreading into new areas of the countryside. Organisations such as the Campaign to Protect Rural England are seeking to reduce light pollution to regain our views of the night sky (see www.cpre.org.uk/home).

Policy 7.3:

We will reduce the negative impact of artificial light.

This will be achieved by:

- Managing street lighting in a sustainable manner.

- Following the guidance set out in 'Lighting Works within Conservation Areas and in the Vicinity of Listed Buildings'.

- Maintaining lighting levels in accordance with the principles set out in 'Well-lit Highways – Code of Practice for Highway Lighting Management' and Institution of Lighting Engineers' Technical Reports, as well as industry best practice (www.ukroadsliaisongroup.org).

For further information about the negative impact of artificial light, please see Chapter 2 'Maintaining the Highway Network' and Chapter 6 'Improving Health and Quality of Life'.

Minimising Flooding, Soil Erosion and Pollutants Entering Watercourses

Road drainage systems are used to:

- Minimise the environmental impact of road run-off on receiving watercourses.

- Ensure the speedy removal of surface water to enhance safety and minimise disruption to road users.

- Extend the life of the road surface and associated infrastructure.

The most common types of drainage systems in Staffordshire are roadside gullies, ditches and grips. Sustainable drainage systems are included in newer road improvement schemes. They utilise features such as ponds, reedbeds and grassy swales to intercept road run-off and associated pollutants. They can be designed to provide attractive landscapes, incorporating features with biodiversity benefit.

Policy 7.4:

We will minimise the risk of flooding, soil erosion and pollutants entering watercourses.

This will be achieved by:

- Cleaning all gullies once a year and their connections to the main highway drain or ditch.

- Carrying out any emergency repair work to gullies within 24 hours of notification.

- Clearing or digging out grips and ditches when required.

- Integrating sustainable drainage features (such as amphibian-friendly drainage systems) into new road improvement schemes wherever possible.

- Ensuring compaction as a result of highway operations is avoided or where this is not possible, repairing the areas by appropriate remedial measures.

- Examining best practice to identify herbicides that once sprayed on or near to the highway will have minimal impact on soil quality and watercourses.

Policy 7.5:

We will minimise the risk of soil contamination.

This will be achieved by:

- Examining best practice to identify herbicides that once sprayed on or near to the highway will have minimal impact on soil quality.

- Examining best practice to identify gritting mixtures that once applied onto the highway will have minimal impact on soil quality.

- Clearing spillages (such as fuel) as quickly as possible, especially in areas with sensitive habitats.

- Ensuring compaction as a result of highway operations is avoided or where this is not possible, repairing the areas by appropriate remedial measures.

Minimising the Risk of Soil Contamination

The construction and operation of roads and footways can affect the properties and quality of soil, either by the physical removal or importation of soils and rocks, or the compaction and sealing of the ground during construction. Soil deterioration may also be caused by the effects of airborne pollution and spray from road traffic.

Improving Townscapes and Heritage Assets on the Highway

The highway network and levels of traffic use have the potential to impact on the built environment, including areas of historic and cultural value. Street layout, surfacing materials, street furniture and planting, can have a profound impact on the character and appearance of the built environment (as well as rural environments). If done correctly they can encompass the historic character and bring communities and people together, encourage physical activity and recreation, restore a sense of pride in an area, and attract businesses and jobs.

The county has a range of both designated and undesignated heritage assets within the highway. Designated heritage assets such as listed buildings, conservation areas and scheduled monuments are protected by law; undesignated heritage assets are not legally protected although they do receive protection within the planning system. These predominantly comprise mile markers and bridges, and are an important element of the county's historic character and must be maintained as such.

Policy 7.6:

We will improve the image of townscapes and ensure that heritage assets on the highway remain as close to their original appearance as possible.

This will be achieved by:

- Adopting an approach to road design and maintenance that will involve minimal visual interference within its surrounds.

- Retaining historic street furniture or using traditional material and sympathetic colours and designs that are sensitive to their location and reinforce local character.

- Identifying and removing superfluous or redundant items of street furniture, and encouraging the co-location of signs to reduce unnecessary street clutter.

- Following the guidance set out in 'Conservation within the Highway: Structures of Historic Importance' (www.staffordshire.gov.uk).

- Consulting with residents, local planning authorities and others during scheme design and implementation.

- Following the guidance set out in 'Lighting Works within Conservation Areas and in the Vicinity of Listed Buildings'.

- Securing Commuted Maintenance Payments by way of the Highways Act 1980 (Section 38 for new roads and Section 278 for alterations made to existing public highways) and the Town and Country Planning Act 1990 (Section 106 for developer contributions towards both 'highway' and 'non highway' infrastructure assets) in respect of the future maintenance costs associated with additional highway infrastructure.

- Working with local planning authorities to ensure that Local Development Frameworks include appropriate strategies for maintaining the character of local public areas.

- Following the guidance set out in 'Manual for Streets 2' (www.ciht.org.uk) and 'Streets for All – West Midlands' (www. www.helm.org.uk).

In relation to historic street furniture including mile markers and fingerposts this will be achieved by:

- Increasing the visibility of mile markers and fingerposts.

- Maintaining mile markers and fingerposts to prevent or remedy any collapse or damage.

- Replacing part or all in extreme cases.

In relation to historic bridges this will be achieved by:

- Minimising the number and size of changes to the existing structure and its appearance.

- Undertaking sympathetic remedial measures that retain a bridge's character, with minimal loss of historic fabric and minimal adverse effect on the setting.

- Replacing traditional materials only where it can be proved that it is essential in the interests of structural stability.

- Undertaking appropriate archaeological mitigation and recording on any restoration works.

- Carrying out repair to minor damage as required, preventing long-term, irreversible damage.

- Carrying out regular and thorough inspections.

- Following the Roads Liaison Group's guidance entitled 'Management of Highway Structures: Code of Practice' (www.ukroadsliaisongroup.org).

- Consulting with residents, local planning authorities, English Heritage and others during scheme design and implementation.

Enhancing the Quality of Rural Landscapes and the Biodiversity Associated With Them

The activity of maintaining the highway network can require significant amounts of natural resources (such as quarried stone) and generate large quantities of waste (such as excavated asphalt). Through the recycling of excavated highway material, cost savings can be generated as well as a reduction in the amount taken to landfill. We recycle virtually all excavated highway material, which in 2009/10 saved over 65,000t going to landfill. This generated cost savings of at least £260,000 at the basic rate of disposal and landfill tax.

The 'soft estate' has areas of considerable value for biodiversity with roads and road traffic having the potential to cause adverse impact. Among the potential negative impacts are habitat loss, habitat fragmentation, barriers to species movements, road mortality of individual animals, changes to drainage, pollution (of air, water and land resources), noise disturbance, visual impacts and artificial lighting. Boxes 7.2 and 7.3 describe how we have altered our practices in order to reduce the impact of maintenance activities on local wildlife.

Box 7.2: Pelsall Road Canal Bridge, near Cannock

The original bridge, located between Cannock and Walsall, was under-strength, in a poor state of repair, had blind bends and a poor collision record. It crossed the Cannock Extension Canal, which is a SSSI and a SAC, and home to white-clawed crayfish and a European Protected Species of aquatic plant called 'Luronium natans' or floating water-plantain. Whilst various interventions were considered, the construction of a replacement bridge was chosen along with improved road alignment. Consent was acquired from Natural England and a Protected Species Licence obtained in order to allow for the handling and transplanting of the 'Luronium natans'. The scheme, which was designed to be sensitive to both the canal ecology and its aesthetic appearance, and included measures to prevent road drainage affecting the canal, took 12 months to complete.

Box 7.3: Birds Setting Schedule for Roundabout Improvement Works

Work to upgrade the Gallowstree Roundabout in Keele (see Box 1.5) was brought forward to avoid disturbing nesting birds and holding-up the project's schedule. Part of the improvement works involved the felling of mature trees and the removal of hedges, which were replaced with wildlife-friendly landscaping.

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Policy 7.7:

We will enhance biodiversity and landscape where possible.

This will be achieved by:

- Recycling as much highway material as possible.

- Using imported recycled or secondary aggregates from local sources.

- Choosing materials and maintenance techniques that minimise the production of greenhouse gases.

- Using energy efficient products, plant and equipment.

- Using techniques that address pollution including noise, contamination and light during implementation.

- Taking full account of the quality and sensitivity of landscapes, habitats and species in the design, assessment and selection of new schemes and ongoing maintenance, particularly where they affect designated landscapes and sites.

- Attempting to fit schemes into their surroundings by careful choice of route and alignment, and by the use of landform, new planting and habitat creation to reduce adverse effects on landscape and ecological character.

- Screening views of traffic, lighting columns and other infrastructure from sensitive areas while still allowing road users the opportunity to appreciate some views over the wider landscape.

- Ensuring lighting has as minimal impact as possible on wildlife species.

- Taking account of protected species and important habitats during construction, tree and verge maintenance, and routine cyclical maintenance.

- Encouraging the inclusion of green infrastructure in scheme design, whilst protecting and managing existing infrastructure such as street and verge side trees.

- Seeking opportunities to create new habitats in road improvement works (such as wildflower areas, wetlands, grasslands, ponds, hedgerows and woodlands).

Protecting the Network of Internationally Significant Nature Conservation Sites

The European Habitats Directive (92/42/EEC) requires a Habitats Regulations Assessment (sometimes known as an Appropriate Assessment) to be carried out on the LTP to ensure the integrity of internationally important nature sites (sometimes referred to as Natura 2000). The Appropriate Assessment identifies whether there are likely to be any negative impacts, how significant they are likely to be and whether any mitigation measures are needed to protect the site or whether it is not possible to offset any likely adverse effect. The internationally important nature sites include SACs, SPAs, and Ramsar sites.

Staffordshire contains 13 internationally important nature sites and many have roads or rights of way either running through them or close by. As a result, the highway network and its use can have a number of potentially negative impacts on the internationally important nature sites, including physical loss, severance and effects associated with pollution. Box 7.4 lists some of the possible mitigation measures to be examined in Cannock Chase SAC due to the impact of traffic and road transport emissions.

Box 7.4: Cannock Chase SAC

Over 1,200ha of the Cannock Chase AONB has been designated as a SAC and it is the largest surviving area of lowland heath remaining in the Midlands. Lowland heath is an internationally scarce and threatened wildlife habitat. A number of roads crossing the Chase are used by commuters and increased development in the area is likely to have a detrimental impact on the lowland heath from road transport emissions.

The SAC is currently the subject of a separate Habitats Regulations Assessment to assess the potential impacts of increased development that is proposed in a number of Local Development Framework Core Strategies. Without prejudicing the outcome of this, the operation of the road network within and around the Chase, parking provision and visitor accessibility, may well be features under active consideration as part of the Appropriate Assessment and Visitor Impact Management Plan.

Policy 7.8:

We will protect the network of internationally significant nature conservation sites.

This will be achieved by:

- Supporting measures aimed at maintaining the integrity of internationally significant nature conservation sites.

- Requiring any new scheme proposal to demonstrate that it will avoid direct or indirect adverse impacts on the integrity of internationally significant nature conservation sites.

- Supporting a limit on the levels of boat traffic using the Cannock Extension Canal.

- Promoting monitoring of pollution and recreational pressures at sites where issues have been identified.

The LTP's objectives and policies are predominantly generic statements that do not prescribe any specific physical network alteration or enhancement. The potential for any adverse impact is highly dependent on the nature and location of any future activity and the robustness of the policy framework to avoid and mitigate potential impacts that could arise.

Following the LTP's Appropriate Assessment, potential issues have been identified in relation to Cannock Chase SAC and Cannock Extension Canal SAC. The Assessment has also identified a number of amendments to the policies contained within this Strategy Plan. These are not necessarily to mitigate its impact but are instead considered beneficial in providing an appropriate policy context for considering future activities and to support the monitoring of its effectiveness.

7.6 Anticipated Outputs and Outcomes

Table 7.1 shows the anticipated benefits of this Strategy when combined with the delivery of the entire LTP Strategy Plan.

Table 7.1: Respecting the Environment

Challenges	Policies	Outputs	Indicators	Targets
Minimise the impact of transport on the environment	Policy 7.1: We will reduce emissions from road transport	Sympathetic highway design	Highway material recycled	Reduce per capita road transport emissions (CO_2) from a 2008 baseline
Enhance the environment through the management and maintenance of the transport network	Policy 7.2: We will reduce the negative impact of (road) traffic-related noise	Green infrastructure incorporated into more schemes	Road verges requiring special management	
	Policy 7.3: We will reduce the negative impact of artificial light	New habitats created	Highway assets on the Historic Environment Record	
	Policy 7.4: We will minimise the risk of flooding, soil erosion and pollutants entering watercourses	Fewer natural assets at risk	Level of tranquillity	
	Policy 7.5: We will minimise the risk of soil contamination		Locations affected by (road) traffic noise	
	Policy 7.6: We will improve the image of townscapes and ensure that heritage assets on the highway remain as close to their original appearance as possible		CO_2 emissions	
	Policy 7.7: We will enhance biodiversity and landscape where possible		Per capita road transport emissions (CO_2)	
	Policy 7.8: We will protect the network of internationally significant nature conservation sites			

1 www.enjoyengland.com/ideas/rural-escapes/landscapes-and-scenery/areas-of-outstanding-natural-beauty/cannock-chase.aspx

Useful Contacts

If you have any queries or comments on the Local Transport Plan, please contact:

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Alternatively, the following contacts are best placed to deal with any individual queries relating to specific topic areas.

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Glossary

A

Access

Access is the degree to which a destination can be reached.

Accessibility

Accessibility is the degree to which key services and employment can be reached by everyone, including those with disabilities or those without access to a private motor vehicle.

Adaptation

The process or outcome of a process that leads to reduction in harm or risk, or a realisation of benefits associated with climate variability and climate change.

Air Quality Management Area (AQMA)

Local planning authorities review and assess local air quality levels with reference to seven health-threatening air pollutants, including carbon monoxide, sulphur dioxide and nitrogen dioxide. Where these pollutants exceed maximum recommended levels, the respective local planning authority is required to declare an AQMA.

Air Quality Management Plan

An action plan that sets out proposals to try and improve air quality in an AQMA.

Ancient Hedgerows

Species-rich hedgerows are often those that pre-date the Enclosure Period (1720 to 1840). Such hedges tend to be more diverse either because they remain after ancient woodland clearance or have had a long time to allow new species to colonise.

Ancient Woodland

Ancient woodland is a term generally used to refer specifically to woodland dating back to at least 1600. Before this date the planting of new woodland was uncommon, so that a wood present in 1600 was likely to have developed naturally.   These woodlands are of high biological diversity, supporting species not found elsewhere and are often of historical interest.

Area of Outstanding Natural Beauty (AONB)

An AONB is an area of countryside considered to have significant landscape value in England, Wales or Northern Ireland that has been specially designated by the Countryside Agency (now Natural England) on behalf of the UK Government.

Aspiration

The ultimate and desired levels of performance. They are not always achievable but reflect the ambitions of the individual, team, service or authority.

B

Benchmark

A parameter of data, process or function used for comparison.

Best Value

Ensuring that services are responsive to the needs of citizens, not the convenience of service providers. Securing continuous improvement having regard to a combination of economy, efficiency and effectiveness.

Bikeability

Bikeability is one of Cycling England's flagship schemes, intended to rescue a 'lost generation' of children who would otherwise miss out on the opportunity to learn to cycle safely and responsibly. Launched in March 2007, it takes learners through three different levels, awarding development at each stage of the training process.

Biodiversity

Is a term used to describe the variety of living things on the earth and their genetic variety, from mammals to insects, trees to wildflowers and the habitats they live in. The earth's biodiversity provides us with a wide range of benefits such as food, materials for construction, medicines and protection against adverse weather. It regulates and stabilises ecosystem processes and contributes to quality of life and physical and mental heath.

C

Challenge

Challenges complement the authority's wider corporate agenda and have regard to the trends and drivers that will shape the future of Staffordshire.

Civil Parking Enforcement

Describes the situation where a local Council (rather than the police) has been given the authority to tackle motorists who park in contravention of restrictions. The restrictions are in place to ensure good traffic management and include on-street parking restrictions and loading and waiting restrictions.

Climate

In a narrow sense, it is defined as the average weather or more rigorously, as its statistical description in terms of the mean and variability of surface variables such as temperature, precipitation and wind over a period of time. Climate in a wider sense is the state, including a statistical description, of the climate system (IPCC, 2007).

Climate Change

A change in the state of the climate that can be identified (e.g. by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. Climate change may be due to natural processes or to persistent human induced changes in the composition of the atmosphere or in land use.

Community Cohesion

Community cohesion refers to the aspect of togetherness and bonding exhibited by members of a community. This might include features such as a sense of common belonging or cultural similarity.

Community Infrastructure Fund (CIF)

Funding that supports infrastructure delivery across the Growth Areas and Growth Points. The additional funding complements rather than replaces mainstream transport funding.

CIF will support the type of transport schemes that are vital locally in unlocking large housing development sites, enabling the acceleration of sustainable housing growth for new and existing communities.

Commuted Maintenance Payments

Is a payment of a capital sum by an individual or company to the Highway Authority, Local Authority, or other body, as a contribution towards the future maintenance of the asset to be adopted or transferred.

Concessionary Travel

Concessionary bus fares scheme offer discounted travel on local public transport for older and disabled people. On April 1st 2008 the local entitlement for free bus travel was extended to allow bus travel throughout England.

Congestion

Congestion is the temporary impairment of connectivity during periods of high demand or when capacity is temporarily reduced for example, by an incident.

Connectivity

Connectivity relates to the quality of the transport network in providing access between places that people want to travel to, measured by travel times and journey reliability. Good connectivity is vital to support current and future economic growth and can help to provide wider economic benefits to businesses. (i.e. how the network connects people to places).

Contextual Information

Information on factors outside the organisation's control or influence which help put its performance into perspective.

Crowded Places

A crowded place is a location or environment to which members of the public have access that may be considered potentially liable to terrorist attack by virtue of its crowd density. Crowded places include airports, rail and bus stations, and pedestrianised areas. In each case, a crowded place will not necessarily be crowded at all times.

Cumulative Impact

Combined effect of more than one objective, policy or measure.

D

Deprivation

Refers to problems caused by a general lack of resources and opportunities — not just money, which is often measured by the Index of Multiple Deprivation. The Index of Multiple Deprivation takes a number of factors covering a range of health, economic, social and housing issues and combines them into a single deprivation score for each small area in England. This allows areas to be ranked according to their level of deprivation.

Detrunking

The process of transferring a road from the control of the Secretary of State to a local authority.

Disability

Is a lack of ability relative to a person or group. Disability may involve physical impairment such as sensory impairment, cognitive or intellectual impairment, mental disorder or various types of chronic disease. A disability may occur during a person's lifetime or may be present from birth.

District Transport Strategy

District Transport Strategies will provide an analysis of the most important issues in each district and will set out their future transport priorities.

E

Environmental Impact Assessment

The identification, prediction and evaluation of the impact that a proposed development may have on the environment so that either strict regulations can be laid down governing its construction or the project can be rejected.

Equality Impact Assessment

An Equality Impact Assessment (EqIA) is a tool for identifying whether an organisation's policies, functions or activities have the potential to negatively or conversely positively impact on a particular group(s) within the population. This group may be defined on the basis of its gender, ethnicity, faith, sexual orientation, disability, age, where a person lives, etc.

F

Fatal Collision

A collision involving human injury or death within 30 days of the incident.

First Year Rate of Return

Local safety schemes are normally reported by First Year Rate of Return (FYRR). The basic equation used is:

FYRR (%) = 100x(annual monetary safety saving/scheme cost)

A scheme that costs £100,000 and delivers £100,000 of monetarised casualty savings in the first year alone would have a 100% FYRR.

Fixed Penalty Notice Scheme

A notice offering a person the opportunity of discharging any liability to conviction for a fixed penalty offence by payment of a penalty.

G

Gershon Efficiency Savings

The Gershon Efficiency Review was a review of efficiency in the UK public sector conducted in 2004-5 by Sir Peter Gershon and made recommendations regarding expenditure and efficiency.

Green Belt

Is a policy and land-use designation used in land use planning to retain areas of largely undeveloped, wild, or agricultural land surrounding or neighbouring urban areas.

Green Infrastructure

Green infrastructure is a strategically planned and delivered network of high quality green spaces and other environmental features. It includes quality green spaces, rights of way, quiet lanes, greenways and corridors.

Greenhouse Gas

A gas which absorbs and emits energy radiated by the earth, trapping some of it and thus warming the climate.

Grips

Mainly located in rural areas, grips (or offsets) discharge run-off into ditches or onto the surrounding ground.

Growth Point

Growth Points are communities that are pursuing large-scale, sustainable housing growth through a partnership between local organisations and central government.

Gullies

Gullies are usually connected by pipe work to a carrier drain which carries the water to an outfall or soak away where the water disperses.

H

Habitats Regulations Assessment

The Habitats Directive was introduced and designed to protect and enhance species and habitats of nature conservation importance at the European level. In accordance with this directive an 'Appropriate Assessment' must be carried out on land use plans where it is considered that they are likely to have significant effects on Natura 2000 sites. These sites include Special Areas of Conservation (SAC's), Special Protection Areas (SPA's) and RAMSAR sites. This assessment will be to identify the potential impacts of land use plans against the conservation objectives of European Sites.

Health Impact Assessment

A planning tool for use by the statutory, private and voluntary sectors in assessing the potential impact on health of key policies, strategies and major service developments.

Highways Agency

Established in 1994, the Highways Agency maintains, operates and improves the network of trunk roads and motorways in England on behalf of the Secretary of State for Transport.

Highway Arisings/Planings

During highway maintenance activities, asphalt material from the highway can be reclaimed and re-used.

Home Zone

Residential streets in which the road space is shared between drivers of motor vehicles and other road users, with the wider needs of residents (including people who walk and cycle, and children) in mind. The aim is to change the way that streets are used and to improve the quality of life in residential streets by making them for people, not just for traffic.

I

Impact

Another term for outcome.

Impairment

A long-term characteristic of an individual, which affects their functioning and/or appearance and may give rise to pain, fatigue, communication difficulties, etc. and ill health the short term or long term effect of disease or sickness.

Indices of Multiple Deprivation

The Indices of Deprivation is a deprivation index at the small area level, created by the British Department for Communities and Local Government (DCLG).

Inputs

Those things that are converted by a process into an output. For practical purposes (and particularly in the local government context) staffing and premises would probably be included, although it could be argued that they are resources that contribute to production and delivery rather than being converted into the output.

Intelligent Transport Systems

Information and communications technology added to transport infrastructure and vehicles in an effort to manage factors that typically are at odds with each other, such as vehicles, loads, and routes to improve safety and reduce vehicle wear, transportation times, and fuel consumption.

In-Vehicle Information Systems

In-Vehicle Telematic Systems tend to have specialist functions, such as helping taxi drivers to organise pick-ups.

L

Lane Rental Scheme

A Lane Rental Scheme involves utility companies paying a fee, which reflects the value of their temporary possession of the road.

Local Area Agreements (LAA)

A LAA sets out the priorities for a local area agreed between central Government and a local area (the Local Authority and Local Strategic Partnership) and other key partners at the local level.

Local Development Framework (LDF)

An LDF is a folder of local development documents that outlines how land use planning will be managed in a particular district.

Local Enterprise Partnerships (LEPs)

LEPs are locally-owned partnerships between local authorities and businesses that play a central role in determining local economic priorities and undertaking activities to drive economic growth and the creation of local jobs.

Local Nature Reserves

Local Nature Reserves are places with wildlife or geological features that are managed by local authorities and are declared by them for their wildlife and community value.

Local Strategic Partnership (LSP)

An LSP brings together representatives from the local statutory, voluntary, community and private sectors to address local problems, allocate funding, discuss strategies and initiatives. They aim to encourage joint working and community involvement, and prevent 'silo working' (i.e. different agencies that share aims working in isolation) with the general aim of ensuring resources are better allocated at a local level.

M

Major Scheme

Separate funding provision is available for highway and public transport schemes of over £5 million that support the objectives of the Local Transport Plan but which would otherwise be unaffordable through normal sources of capital funding.

Major Scheme Business Case

Sets out the business case for a major scheme.

Mitigation

Action either to reduce the probability of an adverse event occurring or to reduce the adverse consequences if it does occur.

Moving Traffic Offences

Moving traffic offences include incorrect use of yellow box junctions, banned turns, one way streets, routes restricted to certain types of vehicles, bus lanes and weight limits.

N

National Cycle Network

The National Cycle Network spans the UK and is over 12,600 miles long. It includes scenic traffic-free paths, quiet roads and lanes, signed on-road routes, and themed long-distance routes.

National Forest

The National Forest covers 200 square miles of the English Midlands across parts of Derbyshire, Leicestershire and Staffordshire.

National Street Gazetteer

A database of all streets in England and Wales compiled by the responsible local highway authorities.

Nearest Neighbours

Staffordshire's ten 'nearest neighbours' have been identified through the Institute of Public Finance's Nearest Neighbour Selection Model and refer to the following authorities: Nottinghamshire, Derbyshire, Warwickshire, Worcestershire, Cumbria, Lancashire, Northamptonshire, Gloucestershire, Leicestershire and Lincolnshire County Councils. They are authorities that have similar characteristics to Staffordshire.

Network Management Plan

A plan that sets out how the network should be managed to meet the requirements of the Traffic Management Act and improve co-ordination between stakeholders in delivering works programmes.

Non Principal Classified Roads

Council maintained 'B' and 'C' roads.

O

Objective

The desired or needed result to be achieved by the plan.

Outcome

The effect of an organisation's activities on its community or other target group. Examples of outcomes include people being satisfied, living longer, feeling safer or living more active lives.

Outputs

The goods and services produced by the organisation, such as bins emptied by the council or council tax collected. An output performance indicator might then be the number or percentage of bins emptied or council tax collected.

P

Performance Indicators

Clearly defined measures that enable an organisation to demonstrate the achievement of an individual, team, service or an authority in meeting objectives.

Performance Management

Performance management is the activity of tracking performance against targets and identifying opportunities for improvement - but not just looking back at past performance. The focus of performance management is the future - what do you need to be able to do and how can you do things better? Managing performance is about managing for results.

Permit Scheme

A scheme that gives an organisation permission to undertake maintenance and/or improvement works on the highway. Organisations that contravene their permit risk a fine.

Place Shaping

The wider, strategic role of local government, which can use its powers and influence to promote the general well-being of a community and its citizens. It includes the following components: building and shaping local identity, representing the community, regulating harmful and disruptive behaviours, etc.

Policy

Statement of intent that shows how an objective might be delivered by using specific interventions and actions to illustrate.

Primary Route Network

Roads that provide the most satisfactory route between places of traffic importance. The highest level is the motorway and trunk road network administered by the Highways Agency (HA) and funded by the Government. The next level down is the 'green-backed' sign network maintained by highway authorities but approved by the Government. Together these form the Primary Route Network.

Principal Roads

A category of road identified in the Highways Act 1980, consisting of all A roads and motorways. This term is now largely unused except in legislation.

Private Finance Initiative (PFI)

PFI is a Government backed partnership between the Council and private companies. The private companies can borrow money from banks to fund major improvements. We, with the Government's help, then gradually pay back the cost of this work to the private company over the length of contract. In the case of Staffordshire's Street Lighting PFI, this is 25 years.

Public Realm

Public space between private buildings, including pavements, streets, squares and parks.

Public Transport Partnerships (PTPs)

Based on the concept of Bus Quality Partnerships, Staffordshire's PTPs are voluntary agreements between the County Council and local bus operators in order to develop strong route branding for key bus services allied with the provision of high quality vehicles and associated infrastructure. The overall aim of Staffordshire's PTPs is to encourage modal shift and patronage growth.

Punctuality Partnerships

A partnership between local authorities and bus operators that aims to deliver high standards of punctuality.

R

Ramsar

The Ramsar Convention (The Convention on Wetlands of International Importance, especially as waterfowl Habitat) is an international treaty for the conservation and sustainable utilisation of wetlands, i.e. to stem the progressive encroachment on and loss of wetlands now and in the future, recognising the fundamental ecological functions of wetlands and their economic, cultural, scientific, and recreational value.

Rate of Return

The amount returned per unit of time expressed as a percentage of the cost.

Regionally Important Geological Sites (RIGS)

Regionally Important Geological and Geomorphological Sites are non-statutorily protected sites of regional and local importance for geodiversity (geology and geomorphology) in the United Kingdom. RIGS may be designated for their value to earth science, and to earth heritage in general, and may include cultural, educational, historical and aesthetic resources.

Rights of Way

All rights of way are legally highways and anyone may use them at any time. However, there are different types including footpath (open to walkers only), bridleway (open to walkers, horseriders and cyclists), restricted byway (open to walkers, cyclists, horse riders and horse drawn vehicles), and byway open to all traffic (BOAT - open to walkers, cyclists, horse-riders, horse-drawn vehicles and motor vehicles).

Risk

A combination of the probability of an event and its consequences, with several ways of combining these two factors being possible. There maybe more than one event and consequences can range from positive to negative and can be measured qualitatively or quantitatively.

Road Hierarchy Review

A Road Hierarchy Review categorises roads and paths in terms of their function and actual use. The safe, effective and efficient movement of motor vehicles is balanced against the needs of other transport and non-transport users. The hierarchy is seen as the foundation of a coherent, consistent and auditable approach to managing the road network.

S

Safer Routes to School

An area wide initiative designed to encourage and enable children to safely walk, cycle or use public transport to get to school. They include a combination of education, encouragement and enforcement efforts in conjunction with a variety of site-specific engineering measures designed to improve safety for bicycling and walking.

Serious Collision

One in which at least one person is seriously injured but no person (other than a confirmed suicide) is killed within 30 days of the incident.

Sites of Biological Importance (SBI)

A SBI is the non-statutory designations used by all of the Staffordshire local authorities to protect locally valued sites of biological diversity of county importance which are described generally as Local Wildlife Sites by the UK Government.

Sites of Special Scientific Interest (SSSI)

Department for Environment, Food and Rural Affairs states "The purpose of SSSIs is to safeguard, for present and future generations, the diversity and geographic range of habitats, species, and geological and physiographical features, including the full range of natural and semi-natural ecosystems and of important geological and physiographical phenomena throughout England. The sites included within the series of SSSIs are intended collectively to comprise the full range of natural and semi-natural habitats and the most important geological and physiographical sites. The SSSI series should therefore include all of our most valuable nature conservation and earth heritage sites, selected on the basis of well-established and publicly available scientific criteria."

Slight Collision

One in which at least one person is slightly injured but no person is killed or seriously injured.

SMART Targets

Specific, **M**easurable, **A**chievable, **R**elevant and **T**ime-bound or timely. Variations are sometimes used. The A can be used for 'agreed' (particularly relevant in partnerships). The R can be used for realistic, reliable or resources.

Smarter Choices

Smarter choices are techniques for influencing people's travel behaviour towards more sustainable options such as encouraging school, workplace and individualised travel planning. They also seek to improve public transport and marketing services such as travel awareness campaigns, setting up websites for car share schemes, supporting car clubs and encouraging teleworking.

Socially Necessary

Some bus routes which are not commercially viable may be considered 'socially necessary'. Typically these services are supported by the local authority and are known as supported or tendered services. Supported services are usually operated by private bus operators and subsidised by the local authority; they tend to operate in the evenings, at weekends and in sparsely populated areas.

Special Areas of Conservation (SAC)

A SAC is defined in the EU's Habitats Directive (92/43/EEC), also known as the Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora. They are to protect the 220 habitats and approximately 1000 species listed in annex I and II of the directive which are considered to be of European interest following criteria given in the directive. They must be chosen from the Sites of Community Importance by the State Members and designated SAC by an act assuring the conservation measures of the natural habitat.

Special Protection Area (SPA)

A SPA is a designation under the EU Directive on the Conservation of Wild Birds. Under the Directive, Member States of the EU have a duty to safeguard the habitats of migratory birds and certain particularly threatened birds.

Staffordshire Resilience Forum

The Civil Contingencies Act 2004 requires local responder bodies to co-operate in preparing for, and responding to, emergencies through a local resilience forum. The SRF aims to ensure that there is an appropriate level of preparedness to enable an effective multi-agency response to emergencies, which may have a significant impact on the communities of Staffordshire. It is a multi-agency partnership made up of representatives from the county's public services, including the blue-light emergency services, Stoke-on-Trent City Council, the district and borough councils, the NHS, the Environment Agency and other partners. The SRF is also assisted by wider partners such as the military, the voluntary sector, the Highways Agency, and the public utility companies. The SRF plans and prepares for major incidents by drawing on industry best practice to prepare and rehearse contingency plans for major incidents on the transport network and to prepare recovery plans.

Strategic Environmental Assessment (SEA)

The European Union Directive 2001/41/EC requires national, regional and local authorities in Member States to carry out strategic environmental assessment on certain plans and programmes that they promote. SEA is a process to ensure that significant environmental effects arising from policies, plans and programmes are identified, assessed, mitigated, communicated to decision-makers, monitored and that opportunities for public involvement are provided.

Strategic Road Network

Nationally significant roads used for the distribution of goods and services consisting of all motorways and trunk 'A' roads that are managed by the Highways Agency, as well as the M6 Toll.

Surface Footway

Any area alongside a road intended for use by pedestrians.

Super Output Areas (SOAs)

SOAs are a geography designed for the collection and publication of small area statistics. There are currently two layers of SOA, with areas intermediate in size between 2001 Census Output Areas (OAs) and local authorities, and each layer nesting inside the layer above.

T

Target

A commitment to achieve a specific and better quality or level of service over a specified time frame, or complete a one-off objective (such as have a new centre opened by a specific date).

Threshold

The point at which further attention is focussed on performance as measured by a particular indicator. Sometimes a traffic light system is used to quickly signal where there are likely to be problems. This may be based on deviations from targets, but it may be better to think of these as triggers or thresholds rather than targets.

Traffic Light Systems

With reference to performance management, they typically show red, amber or green circles, smiley or sad faces, up or down arrows, to indicate whether or not there is a problem with an indicator.

Traffic Regulation Order

A Traffic Regulation Order (TRO) is the legal instrument by which traffic authorities implement most traffic management controls on their roads. Under the provisions of the Road Traffic Regulation Act 1984, local authorities can implement TROs that are designed to regulate, restrict or prohibit the use of a road or any part of the width of a road by vehicular traffic or pedestrians. A TRO may take effect at all times or during specified periods, and certain classes of traffic may be exempted from a TRO.

Transport Asset Management Plan

A strategic approach that identifies the optimal allocation of resources for the management, operation, preservation and enhancement of infrastructure, to meet the needs of current and future customers.

U

Unclassified Roads

Council maintained minor roads that are not designated – see principal and non-principal roads.

Urban Traffic Management Control (UTMC)

UTMC systems are designed to allow the different applications used within modern traffic management systems to communicate and share information with each other. This allows previously disparate data from multiple sources such as Automatic number plate recognition cameras, variable message signs (VMS), car parks, traffic signals, air quality monitoring stations and meteorological data, to be amalgamated into a central console or database. The idea behind UTMC is to maximise road network potential to create a more robust and intelligent system that can be used to meet current and future management requirements.

V

Value for Money (VfM)

Is the term used to assess whether or not an organisation has obtained the maximum benefit from the goods and services it acquires and/or provides, within the resources available to it. It not only measures the cost of goods and services, but also takes account of the mix of quality, cost, resource use, fitness for purpose, timeliness and convenience to judge whether or not, when taken together, they constitute good value.

Vision

Aspirational description of what an organisation would like to achieve or accomplish in the mid-term or long-term future. It is intended to serve as a clear guide for choosing current and future courses of action.

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Potholes? Overhanging branches?
Broken street lights or traffic lights? If you spot any problems on Staffordshire's roads or footpaths please call:

0300 111 8000

minicom: 01785 276207

اگر آپ کو اس دستاویز کو پڑھنے کی غرض سے مدد کی ضرورت ہو تو براہ کرم ہم سے   276733 (01785)   پر رابطہ کریں

ਤੁਹਾਨੂੰ ਇਹ ਦਸਤਾਵੇਜ਼ ਪੜ੍ਹਨ ਲਈ ਕਿਸੇ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ (01785) 276733 'ਤੇ ਸੰਪਰਕ ਕਰੋ।

Copies of the Local Transport Plan for Staffordshire are available on request

If you would like this document in another language or format,
e.g. large text please contact us on (01785) 276633
or email transport.policy@staffordshire.gov.uk