

4. Provide a reliable, resilient transport system which supports a thriving economy and growth

The County Council's approach to delivering a reliable, resilient transport system which supports a thriving economy and growth will focus on:

1. Making best use of our existing transport networks
2. Transport's role in regeneration initiatives
3. Maintenance of the transport assets, and
4. Improving connectivity to inter-urban, regional and international networks, primarily by public transport

1. The strategy to make best use of our existing transport networks (which is detailed in section 4.1) will involve:

- managing disruption on the network caused by street works, incidents and other activities
- reducing the need to travel through effective land-use planning
- effective parking strategy for on-street and off-street parking provision for all road users, including parking provision for new developments
- delivery of a programme of 'smarter choices' measures such as travel plans, promotion and marketing of sustainable travel and better use of technology
- safety and training to enable people to make the best use of the transport networks
- supply-side solutions, such as traffic management; as well as the provision of public transport services and cycling and walking facilities, and
- the effective management of freight.

2. The way that transport will be used to support regeneration initiatives (which is detailed in section 4.2) will involve:

- improving accessibility and transport choice to key destinations but particularly employment and training opportunities
- effective spatial planning and development control
- helping to improve the character, vitality and viability of local centres, including infrastructure improvements where necessary
- securing strategic transport improvements through the Local Enterprise Partnership and Regional Growth Fund
- helping to make rural areas attractive and accessible to maximise their economic potential
- maximising transport funding potential, and
- managing the regeneration impacts of transport on local communities.

3. Maintenance of all the transport assets, including all of those associated with the highway and Rights of Way networks (which is detailed in section 4.3) will involve prioritised programmes of improvements through:

- utilisation of the transport asset management plan (TAMP) and highway asset management system (HAMS)
- more effective life-cycle planning and whole-life costing, and
- flood risk management.

4. Improving connectivity to inter-urban, regional and international networks, primarily by public transport (which is detailed in section 4.4) will involve:

- working with partners to improve longer distance services by rail and coach (including frequency and journey time improvements)
- working with partners to improve infrastructure, and
- input into the development of the high-speed rail to affect its impact on Nottinghamshire.

Nottinghamshire Local Transport Plan 2011-2026

The transport sector is a vital component of the economy, impacting on the development of local, regional and national growth. Efficient transport systems provide economic, social and environmental benefits that help deliver employment opportunities, accessibility to wider markets, time and cost savings through journey time reliability, and can help attract inward investment.

In 2007, the East Midlands Development Agency (emda) study to identify the economic costs of congestion to the East Midlands region's economy determined that the 'direct' and 'indirect' costs of congestion in the three Nottinghamshire housing market areas totalled £165m.

Transport modelling and studies undertaken as part of the development of district council local development frameworks has assessed the 'stress' of the network. Several Highways Agency managed roads (such as the A453) suffer considerable stress leading to delays. There are very few locations on the County Council managed network in the north of the county that suffer stress, although several routes into Nottingham suffer stress during the morning and afternoon peaks.

Journey time surveys undertaken across the county show that congestion is being constrained. Within the market towns (Mansfield, Newark, Retford and Worksop) comparison of 2008 and 2010 congestion shows that conditions have improved and average speeds have increased. Localised problems do exist though, particularly in the morning peak. In Greater Nottingham, the average speeds along the combined monitored routes have increased between 2008 and 2009 (analysis of 2010 surveys has not been completed yet). There have, however, been increases in the journey times along some of the routes into Nottingham.

The Department for Transport (DfT) has provided the County Council with 2009/10 Trafficmaster GPS data for the county. Analysis of this data shows that there is no identifiable delay outside the main conurbations.

Congestion is very closely linked with levels of traffic flows. Traffic mileage (vehicle kilometres travelled) is monitored annually across the county. Although there has been a 3% increase in the number of licensed vehicles in the county between 2005 and 2009, during the same period traffic mileage has decreased by 1%. Traffic mileage has only increased in Newark & Sherwood district (+3%) and has significantly decreased in the more urban districts of Broxtowe, Gedling and Rushcliffe.

More detail on the transport conditions and highway assets in Nottinghamshire is included within Chapter 3 – Existing conditions and challenges, of the LTP3, and within the separate Evidence Base Report which is available from the County Council's website at www.nottinghamshire.gov.uk/ltp3.

A significant side effect of increased traffic levels is 'rat-running' along inappropriate routes that can adversely impact on both urban and rural communities, as well as being a serious road safety concern. Congestion can also impact on accessibility, air quality, regeneration and quality of life.

Managing and addressing existing traffic levels, as well as the impact congestion has on other objectives, therefore places a great importance on delivering the strategy detailed within this chapter. The County Council will proactively manage congestion so as to prevent congestion issues becoming more serious in the future despite the predicted growth in traffic levels.

The County Council will work to ensure that transport supports economic progress by providing the infrastructure to move people and goods efficiently. The strategy to manage congestion will look to address both existing and predicted congestion/traffic growth across the whole county, as well as to help meet the various other priorities detailed within this Plan. The emphasis of the strategy will be to manage existing and predicted traffic levels to prevent congestion occurring, making the most efficient use of the existing transport network and ensuring that air quality is within exceedence parameters. The strategy will therefore involve a balanced mix of demand-side solutions, such as travel plans, land-use planning, and parking enforcement; as well as supply-side solutions, such as intelligent transport systems and improved public transport, walking and cycling facilities.

Whilst not anti-car, the County Council intends to manage congestion by managing traffic growth; reducing the need to travel; and by encouraging greater use of public transport, walking and cycling across the whole county. Traffic management improvements will be undertaken where possible and if necessary, targeted engineering improvement measures will be utilised to make the network more efficient. Where required, additional resources will be allocated to reduce congestion at known hotspots, particularly where this congestion also has a detrimental impact on public transport services.

In order to ensure that the strategy (as well as programmes to deliver it) is able to respond to changes in congestion levels during the course of the LTP3, regular monitoring of vehicle flows along the radial routes into Nottingham City and each of the main district centres of Mansfield/Sutton-in-Ashfield, Newark, Retford and Worksop will be undertaken. The County Council has policies in place (originating in various departments, teams and sections) that are monitored and reviewed regularly to ensure that they meet the requirements of the LTP3. The impact that policies have on congestion, as well as their contribution to meeting the traffic level targets will therefore be considered as part of this process.

4.1 Making the best use of our existing transport networks

To maximise resources, the main focus of the strategy to address congestion and make journey times more reliable, and the subsequent delivery of many of the local transport objectives, will be on getting the most out of our existing infrastructure. This will have a particular focus on addressing issues at peak times to help ensure the efficient and effective movement of people and freight. The measures detailed below all aim to make the most effective use of our infrastructure.

4.1.1 Network Management Duty

The introduction of the Network Management Duty in 2005 requires the County Council to do all that is reasonably practicable to keep traffic moving on its highway network, as well as those of adjoining authorities. It places an emphasis on the importance of the active and co-ordinated management of the road network. This could be through actions carried out by the County Council and its partners by adjusting traffic signals, amending operations, better co-ordination of street works and highway works etc., as well as by those using the network through altering journey times and routes or using alternative methods of travel.

Although not mandatory, the Council recognises the need for a formal plan to develop systems and procedures which will provide both proactive and reactive responses to network management. The County Council will therefore produce a Network Management Duty Plan (NMDP) and keep it under review during the period of the LTP3. The NMDP will focus on measures to relieve congestion (delay due to traffic volumes and capacity on the network) and disruption (delay due to planned incidents such as street works and unplanned incidents such as accidents). This will include the development, improvement and enhancement of the highway and changes in its use through a variety of measures including: traffic management such as new works, signing improvements, and traffic regulation orders; public transport provision; the introduction of smarter choices measures; and the promotion of walking, cycling and public transport use.

The NMDP will promote a continuation of the proactive approaches to the co-ordination of street and road works and other temporary activity on the highway, as well as to parking management. It will also establish the appropriate measures required to respond to unplanned events through incident management, enforcement, media broadcasting, interactive signing and sharing network information in the region. It will identify activities on the highway; methods to minimise congestion and disruption; document diversionary routes; and where possible specify how incidents will be managed.

The County Council is fully engaged in seeking ways of managing demand on the highway network in order to manage congestion and deliver reliable journey times by working to get the best out of the network and to encourage motorists to use alternative modes of travel (as detailed in this Plan in Section 4.1.5 – Smarter choices, of this chapter; Chapter 5 – Encourage sustainable healthy

travel; and Section 6.2 – Provision of an affordable, reliable, and convenient passenger transport network). The NMDP will complement the LTP3 in this area and seek to ensure that policies achieve the balance between the competing demands on the network and reflect the changing use of the network, including those arising from changes in land-use or other development.

Information strategies

The provision of timely and accurate information to road users is an essential part of the Network Management Duty and as such the County Council continues to develop existing systems and explore new technologies. The County Council and Nottingham City Council jointly fund the Traffic Control Centre that monitors traffic movement and provides real-time traffic control over many traffic signal installations countywide. Real-time information is conveyed onto the local media and disseminated via the councils' websites.

The County Council was one of the founding proactive authorities responsible for the development of the award winning EMPreSS website, now named ELGIN, that enables road users to look at road works data seamlessly across authority boundaries. Information related to longer term works co-ordination is available via the East Midlands HAUC website which enables utilities providers, developers and other authorities to view works programmes.

The County Council will continue to be involved in the national roads information framework, a joint initiative involving the Highways Agency, DfT and local authorities. The framework opens up greater opportunities for sharing information between the different agencies, thereby aiding intelligence based network management across the whole East Midlands region. The Council will input into future reviews to improve the data that is collected on the highway network; how this information is analysed; and how the information is used to inform both decision making and the general public.

At a local level the County Council will continue to work with neighbours and other transport authorities, such as the Highways Agency, to improve the better co-ordination and sharing of information relating to the traffic management for special events.

Road hierarchy

The road network is defined by both classification and hierarchy. Classification being the road number, for example A614 or B6031, which is a historically based system that has not been modified over the years and only applies to roads. Road hierarchy is a similar system but is defined based on usage and applies to both roads and footways.

As road hierarchy is more rigorously defined, the County Council has chosen this method as a basis for all of its policy issues. A review of road hierarchies has been undertaken throughout the county and has now become an ongoing process of review. This has been done in conjunction with maintenance of the street gazetteer and associated street data which includes traffic sensitive designations. Hierarchy gives the Council an opportunity to prioritise the different routes, and the hierarchy will continue to be reviewed to help ensure that traffic is influenced to take the most suitable route so that it intrudes as little as possible into the area through which it passes. The hierarchy also enables priorities for road safety, road maintenance, traffic management etc. to be determined accordingly. Where discrepancies are highlighted by the review process (for example, where road usage has changed due to new developments, or new bus routes have been introduced) the hierarchy maps are changed accordingly. The hierarchy is then utilised within the Council's highway asset management system to help manage its assets efficiently and effectively. Although the data held predominantly relates to the County Council's own network, care will be taken to ensure that designations and other hierarchy decisions are not taken in isolation but are considered in conjunction with other authorities to ensure that there is consistency and continuity across the region, and particularly with neighbouring authorities.

The road hierarchy will form the basis of developing a much more detailed hierarchy that is fully reflective of the overall importance of particular roads within the network and is also related to the class of road user.

Partnerships and cross boundary working to deliver the Network Management Duty

The County Council acknowledges that, in addition to a countywide approach to the planning and delivery of its Network Management Duty, there is a need to work in partnership with adjoining authorities and the Highways Agency to deliver a seamless service. The Council has for many years continually developed cross-boundary protocols and relationships with neighbouring authorities and organisations. The Council works very closely with Nottingham City Council and has excellent working relationships with it and other adjacent authorities. This has led to several service improvements, such as reciprocal winter maintenance agreements, where neighbouring authorities salt each others' adjoining roads to make winter maintenance routing more efficient, as well as the joint operation of the Traffic Control Centre with Nottingham City Council.

Other examples are the County Council's membership and proactive work in the Nottinghamshire Bus Punctuality Improvement Partnership, the Bus Quality Partnerships, and the Nottinghamshire Road Safety Partnership. The Council also holds co-ordination meetings as detailed below. Outside of the Plan area, the Council is fully involved in the East Midlands Highway Authorities and Utilities Committee, and the Midlands Service Improvement Group, as well as being involved in the Joint Authorities Group (UK) and HAUC(UK). The County Council is also the chair of the East Midlands Traffic Managers Forum and continues to organise and host these successful meetings in pursuance of regional working.

4.1.2 Managing disruption on the network

It is recognised that, irrespective of the level of congestion, journey time reliability is very important and disruption to travel has a significant impact on many aspects of life and the local, regional and national economy. In order to make best use of the existing transport networks, particular attention will be given to the management of planned and unplanned works, events and other occurrences; taking proactive steps to minimise disruption to the network, including being prepared to respond to incidents. Developing contingency plans for responses to unplanned events and improving communications with other authorities and the public are also essential.

Management of works and other activities

The County Council will incorporate best practice in co-ordination of activities on the highway, as well as reviewing procedures and protocols to ensure that disruption is managed effectively across the network. The County Council will continue to make full use of the provisions of the Traffic Management Act to manage activities more effectively, thereby minimising disruption and reducing congestion. Co-ordination of works and other activities on the highway is carried out at a number of levels under the umbrella of the joint co-ordination meetings involving the County, neighbouring city and county councils, the Highways Agency (HA), utilities companies and emergency services. The Council will also continue to work collaboratively in co-ordinating works and other activities and in developing strategies for dealing with planned and unplanned events across the county. A corridor approach will be used on cross-boundary routes in partnership with the HA and neighbouring transport authorities to ensure effective management. The co-ordination meetings will help ensure that works and other events are well planned and managed and that long-term programmes are shared between works promoters to provide greatest opportunity for joint, sequential or phased working to minimise disruption.

Similarly, the County Council will continue to work closely with the key works promoters to ensure that works are planned to reflect the priority given to the more strategic parts of the highway network, and the conditions that apply to them. This will ensure that promoters are able to develop working methods which will complete works in the most appropriate manner to minimise disruption, whether this be through night, off-peak or shift working or the adoption of alternative construction methods.

The County Council will also explore the opportunity to introduce measures to control activities in a more prescriptive manner than has been possible in the past, such as charging works promoters when works overrun; using powers to direct when works can and cannot be undertaken more extensively; and examining the provisions relating to permit schemes, including whether to introduce such a scheme. The Council will identify areas for improvement in the proactive approach to the management of works in progress and enforcement of conditions. For example,

the Council is currently working with the cities and counties in Derbyshire, Leicestershire and Nottinghamshire to investigate the benefits and costs of introducing a joint permit scheme.

The way that the range of activities is managed will continue to be reviewed during the LTP3 period to ensure that parity is applied irrespective of works promoter.

Incident management

No matter how comprehensive and detailed forward planning of events may be, the occurrence of unplanned incidents cannot be avoided. The County Council therefore has policies and procedures in place for the effective and efficient twenty four hour management of incidents on the highway network. This is carried out in partnership with other organisations such as the emergency services, the emergency planning authority and the Environment Agency, as well as other traffic authorities. Further work, however, will be undertaken to identify the nature of such incidents and establish a prioritised assessment process to determine policies for dealing with them. The Council holds incident debriefs with adjacent authorities, the HA and other stakeholders to identify ways to improve the response to unplanned events.

Contingency plans will be established for responses to unplanned events, including emergency diversion routes for key locations to ensure that pre-established arrangements are in place to keep traffic moving in the event of incidents. The Council will also investigate ways to improve communications to other authorities and the public by examining the processes used to provide and receive information concerning events impacting on the highway network, including that provided by and to the HA through their traffic control centres.

Accidents are just one type of unplanned occurrence which can disrupt the highway network and strategies are in place to reduce road casualties and their consequences, including the resultant delays on the network. Further detail on this is included in this Plan in Chapter 5.3 – Road safety, and in the Cross-Service Road Safety Improvement Plan.

4.1.3 Reducing the need to travel

Land-use planning

Sensitive but effective control of land-use planning is vital in delivering a successful sustainable development strategy and consequently ‘sustainable communities’. If and where it is possible to cut out congestion at source, by removing or reducing the need to travel, this is preferable and more beneficial than dealing with the problem when it has occurred – thus land-use planning is imperative to the Council’s overall aims. The County Council will, through control of land-use planning, seek to:

- reduce the need to travel, thereby reducing traffic growth
- promote a step change in the level of public transport, and
- only deliver highway capacity when all other measures have been exhausted.

Nottinghamshire supported the ‘sustainable’ approach adopted in the East Midlands Regional Plan which looked to distribute development to the main urban areas in the region, such as Nottingham and Lincoln as the main focus for growth and sub-regional centres such as Newark, Mansfield and Worksop to be a secondary focus for growth in the region but a primary focus within the sub-region. Beyond this the development needs of other settlements must be catered for, as well as those of the rural areas. This hierarchical approach should ensure development is located in the most sustainable locations and contribute to:

- maintaining the distinctive character and vitality of rural communities
- shortening journeys and facilitating access to jobs and services, and
- strengthening links between settlements and their hinterlands.

The County Council will promote sustainable development through adopting the sequential approach to the location of development set out in the East Midlands Regional Plan and by encouraging:

- a range of quality employment land to promote economic growth and appropriate employment opportunities; and residential development of a type and in locations which meet the needs of the community
- an integrated transport network to support new development whilst reducing the need to travel, especially by private car
- a range of services and facilities to support business and to meet the needs of communities, and
- as a priority, development to improve the economy, services and the environment in disadvantaged areas and those with high levels of social need.

Developer Contributions

The increased emphasis on re-using 'brownfield' land places more stress on overcoming constraints to development, such as a lack of infrastructure and/or access problems. Developers are required to meet the costs of access and infrastructure directly relating to the development in question. However, to seek to hasten modal shift, a 'Planning Contributions Strategy' is in place whereby financial contributions are collected to support LTP schemes promoting walking, cycling and the use of public transport in the vicinity of the development. This policy has already been incorporated in a number of local plans and the County Council will press for its inclusion in emerging local development frameworks (LDFs).

The County Council will continue to develop this policy to seek to maximise developer contributions, so that the real impacts of any such development are mitigated by the developer and not just passed to the County Council to pick up in due course at the direct expense of the taxpayer.

The County Council has an understanding with its district partners over the need to mitigate the impacts of any new developments, with general long standing agreements over both transport and education contributions. The County Council will continue to work with its partners to maximise opportunities to improve the localised transport network through the LDF process. This will not be on a consistent basis across the county though – as Newark & Sherwood are actively seeking to introduce a strategic infrastructure tariff based on the Community Infrastructure Levy (CIL). This process will be the subject of an independent examination in public later this year (2011). The Levy will be used to specifically fund strategic infrastructure improvements to the strategic highway network, potentially including a southern link road (if this is not funded directly by one of the developments), that are required as a result of cumulative growth in the district up to 2026 but cannot be attributed to the development of any one site. It is still intended that there will need to be localised section 106/section 278 agreements to deal with site specific issues, particularly sustainable measures. Newark & Sherwood are ahead of the other districts in the local development framework (LDF) process and have already had the examination in public on their LDF core strategy. The remaining districts will follow with the examination in public of their LDFs starting in Summer 2011, but no decisions have yet been made as to their individual stances on the CIL.

A hierarchical approach will be taken to ensure the delivery of sustainable transport networks to serve any new developments provide (in order of preference):

- area wide travel demand management (measures to reduce travel by private car and incentives to use public transport, walking and cycling for appropriate journeys)
- improvements to public transport services, and walking and cycling facilities
- optimisation of the existing highway network to prioritise public transport and encourage walking and cycling, and
- major highway capacity enhancements to deal with residual car demand.

4.1.4 Parking

The control of car parking has a significant role in delivering the local transport objectives as it is an important influence on the way people choose to make their journeys. In fact, Planning Policy Guidance (PPG) 13 states that, “*the availability of car parking has a major influence on the means of transport people choose for their journeys. Some studies suggest that levels of car parking can be more significant than levels of public transport provision in determining means of travel.*” Controlling parking in order to have an effect on motorists’ destinations can therefore have a large impact on the types of journeys made, particularly to traffic generators in congestion hotspots. District councils, as part of the development of their LDFs, are reviewing existing parking standards at new developments. The County Council will work with the district councils to help ensure that appropriate parking standards are adopted for all modes of transport and will continue to keep the standards under review. Parking restraint, as a method of encouraging modal shift, has been greatly assisted by the implementation of civil parking enforcement (CPE) which allows the County Council to manage on-street parking and make more efficient use of the highway network.

Integrated Parking Strategy

Parking provision and enforcement in town centres has a particularly important role to play in demand management. The County Council and district councils are working in close partnership to deliver parking enforcement which will have a significant impact on the use of parking in Nottinghamshire, and will consequently allow the effective development of further co-ordinated policies to influence parking and travel patterns. Such policies complement and support land-use policies designed to reduce the need to travel.

The County Council has a range of policies relating to parking, including:

- on-street parking restrictions (including cars, cycles, motorcycles and taxis)
- public off-street parking
- parking provision for new developments
- park and ride
- cycle and motorcycle parking provision
- civil parking enforcement, and
- extended controlled zone parking and residents’ parking schemes.

Within these policies particular emphasis is given to the guidance in PPG13 (Transport) and PPS4 (Planning for Sustainable Growth). The guidance seeks to balance demands for parking in ways which maintain the economic viability and attractiveness of the town/district centres, whilst helping to reduce congestion and encourage sustainable travel. Consideration will also be given to PPS5 (Historic Environment) which also supports the use of parking zones etc. to enhance the 'character' of town centre conservation areas. This may include 'sensitive design' (e.g. narrow yellow lines or thoughtfully located and designed signage) and 'decluttering' to aid in simplicity of enforcement but also to preserve and enhance the protected character of town centre conservation areas.

A balance between on-street and off-street parking facilities is required to ensure the vitality of town centres, recognising the need for using the car whilst encouraging the use of alternative modes when practicable. The vitality of each town centre will continue to be monitored as part of ongoing monitoring of civil parking enforcement, district planning exercises (such as town centre master planning) and the County Council’s programme of Local Accessibility Transport Studies (as detailed in Section 6.1.6 – Local Accessibility Transport Studies, of this Plan).

On-street parking restrictions will be used to serve two purposes – reducing obstructions to pedestrians and other road users; and by reducing parking supply, thereby providing an incentive for car users to consider other modes. Indiscriminate on-street parking will be tackled by a combination of simple waiting restrictions, controlled parking zones and/or residents only parking, as appropriate.

Peak period parking and loading restrictions, including bus stop clearways, will also be introduced on key routes to maximise the efficiency of public transport and to help meet the Network Management Duty, reduce congestion and thereby help improve air quality. The criteria for the

introduction of these are detailed in the County Council's Traffic Regulation Order Manual.

Civil parking enforcement

The County Council recognises that there are considerable traffic management opportunities offered by civil parking enforcement (CPE). Many of the initiatives detailed within the LTP3, such as bus priority schemes and safety outside schools, cannot be achieved without the effective enforcement of supporting Traffic Regulation Orders (TROs). Having introduced CPE in 2008 the County Council are now able to actively enforce traffic violations to support the strategies to deliver the local transport objectives set out in the LTP3. A single countywide scheme was introduced. The Council will continue to review the current CPE arrangements to help ensure they deliver a consistent approach to parking management which supports the delivery of the local transport objectives; and delivers a value for money scheme. This will be achieved through exploring examples of national best practice and through close liaison and consultation with district councils, Nottinghamshire police, the Highways Agency, neighbouring authorities and all other interested external parties.

Whilst there are no immediate plans to extend the scope of the CPE scheme, extensions to the scheme, such as the enforcement of moving traffic violations (and the level of any such undertaking), will be considered as part of the future development of CPE.

Ongoing monitoring of the impacts of CPE will be undertaken periodically to ensure that it does not impact on local residents too significantly.

Extended controlled zone parking

It was anticipated that the introduction of CPE would alter the existing pattern of parking around town centres but this has not significantly occurred. Where this does occur, however, as well as where non-residential parking occurs regularly, the County Council will consider the introduction of appropriate controlled zone parking (or residents' parking schemes) to prevent any displaced parking. Such schemes effectively protect residents from the inconvenience of commuter parking whilst allowing the Council greater control over parking patterns. Such schemes will only be introduced following consultation with residents, and other stakeholders when appropriate (e.g. where there are environmental considerations in conservation areas or adjacent to listed buildings). Work will also be undertaken to ensure the consistency of such schemes across the county.

On-street pay and display

It is hoped that with effective enforcement of on and off-street parking and protected residential areas there will be the opportunity to encourage modal shift amongst commuters to town centres. In turn, the availability of short-term parking for shoppers will improve, thus assisting the retail trade. Future impacts of transport schemes, such as the introduction of workplace parking charges in Nottingham City may, however, significantly impact on parking patterns in the county. Parking patterns will therefore continue to be monitored and the County Council will consider its policy for the introduction of on-street 'pay and display' in the light of any such changes.

Public off-street parking

Off-street parking in Nottinghamshire is managed by the district councils. Public off-street parking is heavily influenced by parking charges, and the County Council will encourage the district councils to adopt charging structures in their car parks to work in tandem with on-street restrictions to favour short-term parking. The County Council will also act to improve the relative cost of bus travel to that of the car by working with district councils on parking issues. The aim is to progressively increase charges for longer term parking in parallel with development of alternatives to the car, an approach consistent with the advice given in PPS4.

Parking provision for new developments

A guide for developers on parking provision in new developments – 'The Sustainable Developer Guide for Nottinghamshire' – has been produced based upon advice contained within PPS3 (Housing), PPG13 (Transport), the now abandoned RPG8 (Regional Planning Guidance for the East Midlands), and the now expired Joint Structure Plan (2004), as well as County Council

policies. The Guide was produced in conjunction with the district councils so that it could be used as a basis for development control by planning authorities. The Guide will be reviewed and updated as necessary during the lifetime of the LTP3.

The overall aim of the Guide is to ensure that developers fully consider the implications of parking and the positive effects this can have on other modes of transport. Although the guide gives details of national, regional as well as local maximum parking provision, it stresses that these figures are not targets, and that developers should seek to provide the appropriate provision for the location of the development.

The Guide promotes alternative modes of transport and the introduction of measures, such as travel plans, so that a much reduced parking provision can be successfully introduced, although on-street parking restrictions may be required to ensure that the potential for overspill is minimised. It is hoped that the guide will also, by encouraging non-car modes of transport, ensure that road safety problems are not created by overspill car parking.

To help developers consider these issues, the guide includes an innovative Transport and Parking Appraisal in which the developer can detail how non-car modes of transport (as well as car sharing) are to be encouraged/included as part of the development.

District councils, as part of the development of their LDFs, are reviewing existing parking standards at new developments. The County Council will work with the district councils to help ensure that appropriate parking standards are adopted for all modes of transport and that standards are kept under review.

Park and ride

High quality park and ride facilities associated with efficient public transport services have proven successful in attracting car users to use public transport for at least part of their journey. They improve accessibility to urban centres and contribute to reducing traffic on congested radial routes.

The County Council will therefore consider the development, and use, of park and ride facilities in appropriate locations to reduce car borne journeys into the principal urban areas and along strategic corridors. The County Council will monitor the effectiveness of its pilot 'pocket' park and ride schemes – at existing car parks on frequent bus service routes – with a view to further provision. Large scale park and ride facilities will also be considered in conjunction with large new housing developments with potential developer funding. It is also recognised that the provision of well designed and accessible park and ride facilities can reduce the need for long stay public car parking in urban areas, whilst maintaining the competitiveness of urban town centres.

The provision of car parking facilities at rail stations outside urban areas can also assist in the modal shift from road to rail. The County Council will therefore work in partnership to ensure adequate car parking provision at appropriate rail stations where it is considered that such provision will assist in reducing congestion at key locations.

Cycle parking

Cycle parking in town centres and at passenger transport interchanges will be provided on a countywide priority basis as part of the integrated parking strategy, along with adequate directional signing to these resources. Provision is also encouraged at other key attractors such as leisure facility sites. A balance of short-term, visible parking and longer term secure parking are provided depending upon the likely type of journeys to the particular destination. Cycle parking and storage facilities are also often a key feature of both workplace travel plans and school travel plans. The standard of cycle parking provision is detailed within the County Council's Cycle Design Guide.

Freight and coach parking

There is currently only one official lorry parking facility in the county. The provision of freight parking facilities will be considered as part of any future freight quality partnerships and strategy that are developed during the lifetime of the LTP3.

Coach parking will be considered as part of new and existing bus facilities when feasible to help enable people undertake longer distance journeys by coach.

4.1.5 Smarter choices

The Department for Transport (DfT) document 'Making Smarter Choices Work' proposed that smarter choices measures could reduce traffic congestion at peak times locally by up to 21% and make life more pleasant for local people. The 'Sustainable Travel Towns' project which ran from 2004 to 2009 showed the benefits of applying high profile smarter choices programmes where they reported that within the three towns where the project was undertaken:

- car driver trips by residents fell by 9% per person, and car driver distance by 5-7%
- prior to the economic downturn, the volume of traffic observed in all three towns reduced by approximately 2% across the whole urban areas, with reductions of 7-8% observed in the inner areas
- bus trips per person grew considerably by 10-22%
- the number of cycle trips per head grew substantially in all three towns by 26-30%, and
- the number of walking trips per head grew significantly by 10-13%.

Whilst these sorts of reductions are highly aspirational, the County Council strongly believes that a package of smarter choices measures will certainly provide benefits, especially if they are supported with the necessary infrastructure. The County Council therefore recognises the major role that smarter choices measures can make towards helping to get the most out of our existing transport infrastructure. As well as reducing congestion, the smarter choices agenda can help promote economic regeneration; improve accessibility, road safety and air quality; and aims to give people real travel choices and promote active travel.

The County Council intends to actively promote smarter choices through both local transport plan and other funding sources. Whilst this will generally include measures that are already highly developed, the County Council will continue to investigate best practice to determine if it is appropriate for introduction in the county.

To promote the longer term future of smarter choices, the County Council will:

- investigate the potential for and pursue means of supporting the costs of smarter choices and travel plans through sponsorship; research grants; developer contributions; and charging for County Council services
- promote the links between sustainable transport and other sustainable development objectives, and
- promote the aims, objectives and actions of the smarter choices strategy to businesses and organisations across the county, including the potential cost savings for businesses by undertaking smarter choices.

Travel plans

Working with businesses, schools, organisations and service providers to deliver effective travel plans will be a critical way of promoting cycling, walking and public transport as an alternative to the private car. The Council will therefore promote the development of effective sustainable workplace, school, residential, leisure event, and town centre travel plans. Travel plans have a particular role in improving accessibility by providing people with the information they need to make a range of journeys. Further details on travel plans is included in Section 5.2.2 – Promotion, of this Plan.

Car sharing and car clubs

Maximising the occupancy of vehicles on the network will help make better use of the limited road capacity available. The County Council has established an online county and city wide car share website. Since January 2009 car sharing established through the website, reduced CO₂ levels by over 650 tonnes; and reduced traffic mileage by 2million miles; saving £450k for members. The County Council will evaluate the success of the existing car share scheme with the aim of providing a system that effectively delivers a scheme that covers the whole of the county. Promotion of car sharing will also be a key element of future travel awareness campaigns as well as travel planning

with businesses, organisations and individuals. Car sharing amongst parents of school children is also promoted on an informal or formal basis through the work undertaken with schools as part of the school travel plans process.

A study to determine the feasibility of a car club in the county was undertaken in 2007. The study concluded that the County Council should wait until after a car club had been established in Nottingham City, to monitor its effectiveness, and to be undertaken as part of any expansion of the Nottingham City scheme. The County Council will therefore wait until a car club is developed and established in Nottingham City before determining if it is appropriate to expand the car club to the county.

Technology

The County Council will look to maximise the use of new technology to help reduce the need to travel. The Council therefore supports Government's strategy to introduce high speed broadband across the country.

Analysis of usage in Nottinghamshire shows that there is less take-up of broadband in the more rural areas of the county and amongst older people. Promotion of broadband usage in these areas and amongst this age group offers significant opportunities to reduce the need to travel and improve accessibility. This is particularly the case in more rural areas as public transport services are often not as frequent as in urban areas resulting in the need to use a car to access services. Broadband, would however, enable people to access some goods and services they need without having to travel.

The promotion of home shopping and local collection points (such as local post offices and libraries) will also be investigated and considered for promotion where appropriate as a means of reducing the need to travel and improving accessibility.

Using technology can transform the way people work and enable people to undertake duties without the need to travel. The Council will continue to implement the use of 'smart working' within its own functions and will continue to promote the benefits of them to other businesses and organisations. The Council will investigate the barriers it has encountered when introducing smart working measures and identify best practice. This work will then be used to develop an educational guide for businesses on smart working practices, including the use of:

- teleworking, giving employees the opportunity and facilities to work remotely, often from home or from other more local bases using telephones or computers, and
- teleconferencing and video conferencing, to replace the need for face to face meetings.

The Council currently offers financial support to businesses to assist with the setting up of such working practices through the travel planning process and this scheme will be reviewed to assess its value for money.

Water based transport

The potential for river and canal transport will be explored and where feasible and safe will be promoted to encourage modal transfer from the private car.

Promotion and marketing

The promotion of cycling, walking and public transport plays a vital role in encouraging people to undertake walking and cycling, or use public transport rather than use the car. A wide ranging programme of promotion is undertaken by the County Council's media and publicity specialists supported by the various teams throughout the Council. The County Council will continue to support travel awareness campaigns at a national, regional and local level and will establish a yearly campaign of events across Nottinghamshire. The campaigns will be developed in consultation with neighbouring transport authorities to ensure the effective use of resources and their maximum impact. To make certain of the most effective use of resources, where appropriate, analysis will be undertaken to identify the most appropriate target audience for campaigns. Promotional campaigns will therefore include targeted marketing that may be area-wide or mode specific. The Council will work to ensure that high quality promotional information is developed

and available throughout the county to businesses, organisations and the public.

Further detail on the promotion and marketing of cycling and walking is included in Section 5.2.2 – Promotion, of this Plan. The smarter choices programme of promotion and marketing will also be supported by the work undertaken to promote public transport which is detailed in Section 6.2 – Provision of an affordable, reliable, and convenient passenger transport system.

Complementary infrastructure

In support of smarter choices it is important to implement complementary infrastructure measures to lock in the benefits. These will include a programme of walking and cycling schemes, bus priority measures, traffic calming and stringent parking control measures, as detailed elsewhere in the LTP3; within the implementation plans to deliver the strategic objectives of the LTP3; and in accompanying strategies.

Partnership working

The County Council recognises the need to work at a local, regional and national level to deliver seamless, consistent and effective programmes of work and will therefore work with a variety of partners. Locally, the Council will work particularly with the City Council, building on the partnership work already undertaken with the City Council and business groups to ensure effective programmes are delivered across the Nottingham Core Housing Market Area. A memorandum of understanding has been drawn-up between Nottinghamshire, Derbyshire and Nottingham City councils to help ensure alignment of strategy and work programmes to deliver transport improvements and a joined-up service to the public. The Council will also continue to work with the local planning authorities and development control teams to ensure that travel plans, car parking standards and transport impact assessment issues are addressed. In addition to development control, the County Council will work with district councils, along with operators and interest groups to promote new and enhanced facilities or services to maximise their usage. The Council will liaise with sub-regional and local partnerships on travel plans and travel awareness initiatives. Regionally, the County Council will work with transport authorities to develop best practice and maximise resources for programmes of work. At a national level, the Council will consider its role as an active board member of the Association of Commuter Transport (ACT) and a member of the National Travelwise Association.

More detail on the smarter choices measures to be delivered is included in the Smarter Choices Strategy which will be reviewed following the completion of LTP3.

4.1.6 Safety and training

A programme of accident remedial schemes and safer routes to school schemes are carried out each year to not only reduce the number of casualties occurring on the county's roads but also to reduce the fear of accidents, particularly among pedestrians and cyclists. Promotion of schemes, particularly safer routes to school schemes, can then play a vital role in encouraging more people to walk and cycle.

It is important to make people feel confident enough to make smarter travel choices and therefore the provision of publicity and training is essential to help people make the transition to walking and cycling, or continue to do so. Child pedestrian training is carried out across the county. Similarly, cycle training is available to both adults and children. Publicity on safer walking and cycling activities is also provided to other age groups, such as the elderly and young adults.

More details on safety and training are detailed within Section 5.3 – Road safety; and within the Cross-Service Road Safety Improvement Plan.

4.1.7 Supply-side solutions

Intelligent transport systems

Within the urban areas there is scope for improving the efficiency of the existing network through the installation of intelligent transport systems. The County Council will therefore continue to investigate and prioritise the locations where such measures will make an improvement to the operation of the transport network.

Traffic signals can be controlled using SCOOT (Split Cycle and Offset Optimisation Technique) and MOVA (Microprocessor-Optimised Vehicle Actuation), which can theoretically bring increases in junction capacity of up to 15% as well as enable greater bus priority to be achieved. Both of these systems are able to respond to fluctuations in traffic flow and patterns as they happen whilst retaining the links necessary for the successful operation of a co-ordinated network of traffic signalled junctions. MOVA has been shown to reduce average delays by up to 13% at isolated junctions (TRL Report RR279) whilst SCOOT has been shown to reduce delays by up to 15% in linked traffic systems. There is additional evidence that MOVA can reduce accidents at sites with high speeds if installed in appropriate locations.

Junctions are selected for improvements using capacity modelling to determine those that would currently benefit from SCOOT or MOVA, as well as identifying those which may require upgrading in the future (given traffic forecasts).

Real-time CCTV linked to traffic control rooms is also used to monitor and manage traffic flows into town and city centres. The use of the traffic control centre and expansion of CCTV to assist in its functions will be expanded as necessary to help meet our Network Management Duty.

Public transport

The design of new, and improvement to existing, bus stops, shelters, stations and interchange provision is important in encouraging public transport use. New or improved bus stations have been delivered in Retford and Sutton in Ashfield and designs have been developed for Mansfield and Newark. The County Council will investigate further improvements to existing and potential bus stations as development and funding opportunities arise. Such schemes will look to improve integration between all modes of transport and also support economic regeneration of the local centres that they serve. Improvements to rail stations will also be investigated and developed in partnership with Network Rail, such as the major improvement scheme of Nottingham Station as well as enhancements to the more rural stations in the county. Enhancements to all bus stops across the county, to provide improved timetable and journey information, are also planned.

Working in partnership with local operators, the County Council will strive to improve:

- reliability and speed, by re-allocating road space to provide dedicated bus lanes, using off-bus ticketing where feasible and the punctuality improvement plans
- the bus network where feasible
- waiting facilities, by providing new, improved and well maintained stations, interchanges, bus shelters, raised kerbs, lighting and CCTV
- integrated ticketing, and
- public transport information.

Further detail on improving public transport is included within Section 6.2 – Provision of an affordable, reliable, and convenient passenger transport network, of this Plan; and within the Integrated Passenger Transport Strategy.



Walking and cycling facilities

The provision of facilities to provide for, and encourage walking and cycling will continue throughout this LTP3 period through capital, revenue and external funding (such as funding secured from external organisations and developer contributions). More detail on the use of external funding and the types of measures that will be provided to meet the objectives of the Plan during its lifetime are included within the LTP3 Implementation Plan.

Measures to encourage cycling and walking for all vulnerable road users (cycling, walking, horse riding and motorcycling) are essential to encouraging modal change. The health benefits of walking and cycling are well known and these modes can make a significant contribution towards the establishment of a more sustainable local transport system, reducing congestion, and improving accessibility. The measures that will be considered are detailed within this document in Section 5.2.1 – Provision of facilities.

The County Council has produced a Cycle Design Guide that utilises a combination of government guidance, best practice ideas adopted from other local authorities and the requirements as specified by interest groups. This ensures that all new cycle facilities are of a high standard that meet the needs of users and enable the introduction of new ideas as and when they are developed. New facilities will also be subject to value for money checks.

Signing

Effective road signing can play an important role in helping to keep traffic flowing; helping to avoid traffic from getting lost and circulating unnecessarily; encouraging traffic to use preferred routes; and guide vehicles to parking locations away from busy areas. Clear directional signing is therefore essential. Variable message signs will be considered where appropriate to help identify car parks and available spaces to help with the issue. Signing of freight routes will also be considered when appropriate to encourage the use of preferred routes and to avoid identified areas.

The County Council's road signing standards are detailed within the Highway Network Management Plan, which will continue to be reviewed as appropriate to ensure that the standards meet the needs of the network.

Local Accessibility Transport Studies

Many of the types of facility detailed within Section 5.2.1 – Provision of facilities, have been installed as part of the Local Accessibility Transport Studies (LATS). This programme is being continued into LTP3 in order to assist with reducing town centre congestion by improving access to and within town centres by public transport, on foot and by bike.

Localised congestion in district centres (including rural centres) can be tackled through the programme of LATS. In these locations congestion can greatly inhibit accessibility to local services and can encourage shoppers to patronise out of town superstores rather than local shops. The LATS aim to encourage use of local district centres by improving and promoting sustainable access and reducing delays. Not only will this reduce the need to travel to non-local centres and supermarkets but will also reduce the need to use private motor transport. Further detail on the LATS is included within Section 6.1.6 – Local Accessibility Transport Studies, of this Plan.

4.1.8 Freight

The importance of effective and efficient movement of freight on the economy is recognised, as is its potential impacts on transport networks, the environment and quality of life. The County Council will therefore seek to work in partnership with freight operators to help make best use of the existing transport network through the provision of a network that serves both commercial traffic, as well as the local public's requirements. Further information on freight is detailed throughout this document relating to parking (Section 4.1.4); signing (Section 4.1.7); encouraging the transfer of freight to lower carbon vehicles – including rail and water (Section 7.2.4); education on lower carbon transport issues (Section 7.2.5); and noise (Section 7.5 and 7.5.4). This strategy will evolve with the development of a Freight Strategy following completion of this LTP3.

4.2 Regeneration

History shows that an over-reliance on traditional industries can create serious difficulties. In the early 1990s Nottinghamshire experienced major shocks due to the structural economic changes affecting coal, textiles, clothing and other manufacturing industries. These changes had a very serious impact on some communities, particularly in the west of the county.

The fallout from Nottinghamshire's declining industrial heritage, particularly past reliance on mining and textiles, continues to hamper economic activity. Although progress has been made to bring unemployment rates down to match national figures, the quality of these new jobs has been low. Educational aspirations and attainment of school leavers is poor, creating a pool of unskilled people seeking low paid work – with the consequence that low value industries are encouraged to invest in these areas. Towns and villages, predominantly in the west of the county, continue to under perform in terms of business activity, environmental appearance and inward investment – reflecting the low disposable income of the surrounding community.

To help determine regeneration requirements, the County Council uses an approach based on the 'Local Futures Audit', a policy tool developed in collaboration with the Audit Commission and the Local Government Association. The Audit compares a range of selected benchmark indicators of economic, social and environmental well-being to help inform policy and strategy development. The Audit compares the performance of Nottinghamshire (and each of its seven districts plus Nottingham City) against the other sub-regions in Britain (there are 53 in total), as well as against regional and national benchmarks. The most recent Local Futures Audit, 'The State of Nottinghamshire' was undertaken in 2009 to be used as an evidence base for Nottinghamshire's Sustainable Community Strategy and utilised information available up to 2006.

The Audit determined that the performance of Nottinghamshire's economy is mixed, being close to the national average in terms of scale and productivity, but below the national average in terms of growth rates. The skills and qualifications profile of the workforce and labour market conditions also signify an under performing economy. Nottinghamshire, however, performs slightly better than the national average on two key measures, its business and enterprise profile and its industrial structure, suggesting a mixed economy with potential for growth and dynamism not yet captured and reflected in the economy's overall performance. Its industrial structure score indicates the presence of knowledge driven businesses, although these tend to be clustered in the south of the sub-region. It also performs above the national average on business and enterprise score, with higher than average formation rates and healthy growth in business stock.

Social conditions in the sub-region are a cause for concern, with some areas performing well below the regional and national average. Nottinghamshire faces a range of social challenges. Whilst there are substantial variations within Nottinghamshire, the occupational profile reveals a disproportionately large number of people working in semi-skilled and unskilled occupations; and a small number of people working in higher-end managerial and professional occupations. Related to this, income levels are low and deprivation levels are above the national average.

Nottinghamshire's environmental conditions compare favourably with the rest of the country. The quality of its natural environment is on a par with the national average, as is its score for local amenities, suggesting a pleasant cultural and natural environment as a whole. The overall score, however, masks considerable variation across the sub-region, as the districts adjacent to Nottingham City and districts in the north of the county have very different characteristics. The 'Heritage at Risk' register also show that the county has above average levels of heritage in poor condition ('heritage at risk' levels are directly reflective of rural and urban deprivation issues).

The development of modern, efficient communications infrastructure should be seen in the context of wider regeneration initiatives. The transport strategy will help support the creation and safeguarding of jobs, as well as helping to attract inward investment, by supporting regeneration in four main areas:

- removing transport barriers to work by providing access to jobs and employment opportunities, and to open up employment sites
- removing transport barriers to access to education and skills training; thereby helping people improve their skills and support them back to work
- helping to create economically vibrant and attractive local centres, towns and villages, and
- providing support for local partnerships to develop action plans to address the needs of communities.

4.2.1 Improving accessibility and transport choice

Accessibility planning can play a significant role in helping regeneration throughout the county by improving people's access to both new and existing employment and training opportunities. Transport choice is a key element in improving accessibility. Improving and promoting transport choices also plays a key role in contributing towards reducing congestion through the provision of bus services, bus priority, walking and cycling measures; and will thus increase the overall competitiveness of the areas. Other features of this work will include working with employers on travel plans on a targeted basis to provide appropriate public transport, walking and cycling access and facilities. Good access to local centres by walking or cycling can also play a key role in encouraging people to use them, thereby helping to keep them vibrant and encourage business to invest in them. Demand-side solutions, particularly the smarter choices programme of work (detailed in this chapter within Section 4.1.5 – Smarter choices) offer similar opportunities to aid regeneration.

More detail on improving accessibility as well as improvements to existing public transport networks to ensure access to jobs and training can be found in this document in Chapter 6 – Improve access to key services, particularly enabling employment and training opportunities, within the Accessibility Strategy, and within the Integrated Passenger Transport Strategy.

4.2.2 Spatial planning and development control

The development of brownfield sites as opposed to edge of town greenfield development will be encouraged. Constraints on the existing transport networks are often the biggest obstacle to development. The Council will continue to work with the district councils to align local development frameworks and transport strategy to help ensure they complement one another. Where appropriate, and where funding allows, new or improved transport links will be provided to make such previously used sites more



attractive for investment and more sustainable. In opening up these areas for investment, transport provision is often necessary in the form of new infrastructure and public transport service provision. The provision of such facilities will be sought through developer contributions and support for appropriate sites will continue to be offered through the development control process.

4.2.3 Local centres

The County Council acknowledges the essential role played by the local (district, town and village) centres in providing the services and jobs necessary for a prosperous and sustainable community. In the same way that town centres reflect the general economic well-being of the local community, they can also drive forward economic recovery and prosperity in an area by being the centre of

new enterprise. Towns are the focus for local employment, services, retail, education and training, as well as cultural heritage. They are the natural hubs for public transport systems and provide the hub for extensive travel to work areas. The vitality of the market towns and urban centres in the county is essential to the sustainability of those communities. A vibrant town centre will attract inward investment from business, creating jobs and security for its community. The LTP3 aims to revitalise the district centres, as necessary, in order to maintain their character, competitiveness and economic viability.

The accessibility planning process will also concentrate on the development of better access to these district centres to ensure that all sections of the community served by the centre have the ability to access local services, jobs, education, training, health and recreational facilities (as detailed within Chapter 6 – Improve access to key services, particularly enabling employment and training opportunities). A number of centres have already benefited from Local Accessibility Transport Studies (LATS) undertaken in collaboration with local residents, business and stakeholders and these will be continued during the lifetime of LTP3. The community involvement approach to LATS will also help complement and integrate with wider social, economic and physical action in communities (with a focus on access and mobility). The LATS have helped identify environmental improvements, promotional activity and access improvements to be integrated to help meet the needs of businesses to revitalise local centres; making them more pleasant places to shop and work; encouraging civic pride and making them easier to access. Making the local centres more attractive and vibrant also encourages inward investment.

During the LTP3 period, LATS will continue to place a great deal of emphasis on regeneration issues in local centres, specifically:

- promoting their role as shopping/service centres
- promoting leisure and tourism
- encouraging sustainable access
- adding to the attractiveness of the centres
- promoting a local partnership approach, and
- supporting the development of local area action plans as required by the local development framework.

4.2.4 Infrastructure improvements

Investment in local centre infrastructure, such as public transport or pedestrianisation, may be required to assist in the regeneration of areas. Opportunities to invest in larger transport schemes that provide significant regeneration benefits will be explored. Such schemes will be developed where feasible, when funding opportunities arise and where they can be developed at little risk to the County Council. Supporting the economy and regeneration will also be key factors in the prioritisation of smaller scale transport improvements to be developed during the lifetime of this Plan.

The County Council has long recognised that a continuous programme of investment is needed in many areas of Nottinghamshire to create desirable, attractive places to live and has a proven track record over the last 30 years of undertaking improvement schemes aimed at complementing local transport initiatives. The County Council will continue to support such schemes through initiatives such as the Local Improvement Scheme (as detailed in Section 7.6.1 – Local Improvement Scheme, of this Plan).

The creation of a high quality public realm together with attractive access points and gateways into local centres are important to their overall impression and appeal, particularly in appealing to investment. The Council will continue to work in partnership with the private sector and other agencies to secure an improved public realm particularly where such collaboration will help unlock further private sector investment. The LTP3 programmes of work will also help to promote added value to urban parks, play areas etc. where appropriate.

Work will also be undertaken to develop measures that will support 'master plan' visions for redevelopment opportunities and economic improvement plans. Active discussion with the needs of businesses to help deliver employment growth will also be undertaken as necessary through the LATS and as part of larger scheme development.

4.2.5 Local Enterprise Partnership

A Local Enterprise Partnership (LEP) has been established between the counties of Derbyshire and Nottinghamshire as well as the cities of Derby and Nottingham which will provide opportunities to develop the economy by co-ordinating economic development activity and maximising their academic and commercial strengths. The LEP will have a future role in aspects of transport planning related to economic development and growth across the whole of its geographical area. Although the LEP is still in its infancy, it is likely to have a role in agreeing strategic transport priorities across the LEP area that maximise economic growth; and will have a crucial role in collective lobbying for strategic infrastructure improvements that support economic growth.

4.2.6 Rural areas

In the rural areas of the county, Local Accessibility Transport Studies (LATS) will promote the local market towns and larger villages as foci for economic growth, particularly as service centres and transport hubs for their hinterlands. Continued investment in creating high quality public transport interchanges and improving access to these centres through accessibility planning will aid this process. Transport improvements undertaken as a result of LATS will have regard to the preservation and enhancement of the special historic character of the county's market towns and larger villages which is crucial to their attractiveness and vitality.

Promoting tourism can also assist rural regeneration, and Nottinghamshire has a number of tourist attractions, particularly around Clumber Park and Sherwood Forest. Increased tourism brings employment opportunities and income to rural areas but needs to be carefully managed in order to ensure that damage is not done to the environment. The County Council's Rights of Way Improvement Plan will also offer the chance to exploit the economic potential of these and other rural areas by promoting tourism in the countryside and improving access to it.

The County Council recognises that LTP3 measures alone are insufficient to make a significant impact on rural regeneration. The Council is keen to ensure that these measures are supported and integrated with other initiatives to add value to the programme. The countywide Local Improvement Scheme (LIS) programme has therefore been designed to not only add substantial capital funds for the improvement of the local environment, but also to link in with the LTP3 programme. The LIS programme is 'rural proofed' in that it ensures that all wards, and particularly deprived wards, benefit from this investment.

The County Council has also recognised that many of the rural areas suffer from the poorest quality road and footway maintenance. The Council has therefore prioritised maintenance improvements on unclassified roads to help address this issue, but recognises the need to preserve the special rural character of villages and avoid the over urbanisation of such areas.

4.2.7 Maximising funding potential

To supplement additional County capital funding, such as Local Improvement Scheme funding detailed above and in Section 7.6.1 – Local Improvement Scheme initiative, the County Council has been particularly active and successful in attracting external funding to supplement projects that meet wider objectives. The linkage of schemes to meet wider objectives has in itself ensured that projects are developed in a holistic way to meet broader objectives. External funds have come from a variety of organisations including the East Midlands Development Agency, European Regional Development Fund, Single Regeneration Budget, Waste Recycling Environmental Ltd and others. This has supported a number of joint schemes and it is the intention of the County Council to continue to seek external funding when possible to add value to the LTP3 programme.

4.2.8 Regeneration impacts

Regeneration can change the nature of travel (for example, longer or slower journeys). Successful regeneration can also lead to more profitable transport services (such as bus services) through increased demand thereby reducing the need for the County Council to subsidise services. The County Council will therefore continue to monitor the transport impacts of its regeneration work to make sure that the transport networks continue to cater for need.

4.3 Maintenance of the transport assets

The County Council's transport assets (including roads, footways, bridges, structures, signs etc.) are key community assets. They have a vital role in supporting both the local and national economy as well as contributing to the environment of the areas they serve, thereby contributing to residents quality of life.

The County Council has responsibility for delivering highway maintenance to the people of Nottinghamshire and those travelling through it on its highway network. Nottinghamshire has a highway network totalling 4,296 kilometres (detailed below) for which the County Council, as highway authority, is responsible for its management and maintenance, and provision of new enhanced infrastructure. In addition to roads, there are over 350km of formal cycle network across the county; almost 3,000km of Rights of Way network; almost 91,000 street lights; and 715 bridges over 1.5m span; as well as lit and un-lit signs, traffic signals and street furniture etc.

The County Council is also responsible for the maintenance and upkeep of the footways adjacent to local authority managed roads in the county. The Council is currently undertaking an audit to determine the full extent and condition of its footways. This work will be completed during 2011 and will be used for future prioritisation of footway repairs and maintenance.

A key challenge to ensuring the highway assets are resilient to future pressures will be the consideration and planning for the predicted impacts of climate change. The adaptation responses to climate change that have been developed are detailed within Section 7.1 – Adapting to climate change, of this Plan.

4.3.1 Transport asset management plan and highway asset management system

The development and implementation of a transport asset management plan (TAMP) for the County's highway network is a key opportunity to deliver a safer, improved network service for all road users. The development of a TAMP will also help the County Council to make better use of its transport assets through improved asset management, ensuring they meet current and future requirements of the network. The production of the TAMP and the processes involved in its development should also clearly set out the financial requirements of the network. This in turn will assist in efficient management of budgets as well as the implications for depreciation of the asset if it is under resourced. The introduction of the principal of life-cycle planning and whole-life costing to schemes whether new build or maintenance schemes, should lead to economic improvements, together with effective and efficient use of the network.

The TAMP will continue to be developed and reviewed with the main objectives being to:

- review current practice
- review existing inventory provision, identify gaps and prioritise a data collection programme to build an inventory of items that comprise the highway assets, and ensure maintenance of the data itself. Strategies have been developed to make improvements in data management and use, as these will be required to support a greater use of asset management. These strategies cover the collection and replacement of missing/unreliable data and work is underway to collect/replace this data
- identify the current condition of the assets, taking into consideration life-cycle planning and whole-life costing
- determine an accurate valuation of the whole asset and ensure processes are in place for updating this whenever required
- identify the levels of service appropriate to the key assets and the likely available funding. Future levels of service will be developed as required, to ensure these assets meet current

- and future requirements and to put in place performance measures
- develop an integrated forward work programme to cover all assets, ensuring they support LTP3 objectives as well as ensuring any proposals are appropriate to the existing conditions. The TAMP will define current and desired levels of service and the corporate risks associated with these. Once these have been established, an integrated renewal and maintenance programme can be developed, and
- reduce the number of claims against the County Council. In an increasingly litigious society the aim is to limit the risk of accidents through risk reduction by ensuring a high standard planned maintenance regime is in place, together with appropriate inspection regimes and records of defects and repairs.

Highway asset management system

A key aspect of the production, and delivery of the principles, of the TAMP is the development and implementation of a highways asset management system (HAMS), which is a fully integrated system for the management of all highway assets. The County Council has therefore implemented a HAMS as part of its development of the TAMP. Historically, the County Council has had many different systems used to manage various asset types but the HAMS, where possible, integrates these data sets together. This offers a number of benefits including consistency of approach, increased efficiency in viewing and manipulation of multiple data sets, improved data for defence of insurance claims, and improved responses to customer enquiries. It also offers value for money through the reduction in staff time preparing works programmes.

Modules implemented (or in the process of implementation) are:

- customer relations management
- new roads and street works
- bridge management system
- street lighting management system
- pavement management system
- inventory (signs, signals, safety fencing etc.)
- inspections (including mobile working)
- works ordering
- arboricultural
- drainage, and
- traffic signals.

Whilst most modules are now fully integrated, the population of data and system development is an ongoing process. The technical survey data collected on all of the highway assets is input into the HAMS. This is then supplemented with local engineering knowledge/judgement, customer enquiry information, inspection history, reactive maintenance costs, details of utility works and any other relevant information to add value to the technical information. Further modules will be considered for inclusion in the HAMS as appropriate (such as the implementation of a financial interface) to secure efficiencies in service delivery.

The HAMS will be used to:

- inform the asset valuation process and provide data to assist in the calculation of depreciated replacement cost
- setting service levels for different classes of road
- determine funding levels required and assist in the allocation of funds between road classes and operational areas
- inform and support the production of annual work programmes and multi-year programmes on the road network, and
- provide data to support performance management monitoring.

Life-cycle planning and whole-life costing

Utilising the principles of the TAMP and the information contained within the HAMS, work on life-cycle plans will be undertaken for individual highway assets (for example carriageways, footways, bridges, street lighting, signals, signs and lines). This will help make sure that the best possible value for money is achieved. Whilst this is not a new concept to the Council, as it has been used for a long time to make decisions on measures such as carriageway surfacing, this principal is now being developed for all assets in a more formally recorded manner. Each life-cycle plan will document current practice, identify standards and levels of service, thus enabling performance gaps to be identified. In addition, each life-cycle plan will identify the cost and the anticipated life of treatment options, as well as detailing the methods used to assess the relative cost effectiveness of different treatment strategies. By developing a long-term strategy, options will allow for consideration of not only the most cost effective treatment at a single point in time but also the timeliest intervention. Resources will be directed towards identifying preventative maintenance treatments that have minimal whole-life cost but at the same time halt the deterioration of the asset's condition.

Whilst whole-life costing is not as easily applied to highways as other assets, there is a need to establish what the valuation of the asset is to evaluate how much it will cost to replace using asset valuation guidance and timings. For different types of construction techniques, the County Council can then determine whether it makes financial sense to invest more at the outset to save funding in the longer term and manage the asset with regards to best value and customer expectation.

Long-term planning for maintenance will facilitate the analysis of the timing of maintenance interventions and the programming of preventive maintenance treatment, thus leading to better whole-life cost solutions. An integrated forward work programme will also facilitate the co-ordination of planned maintenance schemes with major and other integrated transport schemes, and potentially improve co-ordination with utility works, as required by the Transport Management Act. Once long-term programmes have been developed for all assets (as a result of the development of life-cycle plans for each asset) and for each service area (as an output from other LTP3 strategy development) it will be possible to identify conflicts and the possibility for developing hybrid schemes (i.e. schemes that meet two or more purposes concurrently).

4.3.2 The highway network

The highway network is a key community asset that supports the national and local economy and contributes to the character and environment of the areas it serves. Roads are an important part of everyday life for all sections of the community. The local road network is central to the integrated movement strategies, contributing to the delivery of wider economic, social and environmental objectives. Its effective management and maintenance therefore has the potential to aid regeneration, accessibility and community safety programmes and strategies.

Table 21: Road lengths in the county

Road type	Length of the road network (km)							TOTAL
	Ashfield	Bassetlaw	Broxtowe	Gedling	Mansfield	Newark	Rushcliffe	
Motorway	0	0	12	0	0	0	0	12
A(M)	0	5	0	0	0	0	0	5
A(Trunk)	0	19	6	0	0	42	62	129
A	39	170	65	38	48	146	53	559
B	56	84	27	26	21	55	3	272
C	45	178	24	41	14	244	219	765
Unclassified	289	488	298	331	328	516	304	2554
TOTAL	429	944	432	436	411	1003	641	4296
% of network	10%	22%	10%	10%	10%	23%	15%	

Source: Nottinghamshire County Council

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60% of the County's network is classed as being in the urban built-up environment with the remaining 40% in the rural environment. Almost three quarters of the County's A roads and C roads are rural, whereas over three quarters of the County's unclassified roads are urban.

The County Council is responsible for all maintenance of the highway asset – planned structural maintenance, reactive maintenance, as well as winter maintenance (such as salting the roads). Effective management of the asset has helped the County Council preserve the condition of its A, B and C roads, whilst the condition of unclassified roads has worsened slightly. The current condition of the principal roads (A roads) is in the top quartile nationally; the condition of non-principal roads (B and C roads) is in the top 50% nationally; and the condition of unclassified roads is in the third quartile nationally, slightly worse than the national average.

The service standards (the percentage of the network where maintenance should be considered) will continue to be reviewed in the light of the condition, future impacts (such as weather), and levels of available funding.

The main objective of the County Council is to manage the highway network in order to provide for the safe, efficient and effective movement of people and goods whilst preserving and enhancing the environment. Highway maintenance will be undertaken by means of a systematic logical approach. The main aims of the maintenance strategy are to:

- deliver the statutory obligations of the Council
- be responsive to the needs of users and the community
- provide effective management of the highway network asset and ensure effective allocation of resources
- support highway network management strategy and integrated transport objectives (such as those detailed within the LTP3) as well as supporting and adding value where possible to wider policy objectives
- further develop best value and asset management planning in the maintenance of the County's highway infrastructure
- contribute to the reduction in road accidents and casualties as part of the County's overall strategy for casualty reduction, and
- provide clear statements of highway maintenance policies, standards and procedures, reviewing them on a regular basis.

These principles are incorporated into a network management regime with the following core objectives:

- **network safety**
 - complying with statutory obligations
 - meeting users' needs
- **network serviceability**
 - ensuring availability
 - achieving integrity
 - maintaining reliability
 - enhancing quality
- **network sustainability**
 - minimising cost over time
 - maximising value to the community, and
 - maximising environmental contribution.

Assessment of the condition of road and footway networks

The County Council carries out technical surveys of its road network to provide information used for a variety of tasks to maximise value for money, including to:

- provide detailed performance data to monitor year on year performance and assess the effects of how work in individual areas contributes to the overall indicator
- assist in the decision making for budget allocation between the different budget headings and areas
- provide data for scheme selection and maintenance treatment selection, and
- provide information to inform the transport asset management plan and asset valuation requirements.

A number of survey techniques are used to assess the condition of Nottinghamshire's roads and a summary of the technical surveys completed is shown in table 22 below.

Table 22: Road condition survey techniques

Road Class	Survey type				
	SCANNER	SCRIM	CVI	DVI	FNS
A	✓	✓			
B	✓	✓			
C	✓	✓			
Unclassified			✓	✓	
Footways				✓	✓

Source: Nottinghamshire County Council

The technical survey data is input into a 'pavement management system' in the County Council's HAMS and used, alongside other factors to prioritise future spending on the maintenance and upkeep of the highway assets.

The Council is also undertaking a 'footway network survey' (FNS) of its entire footway network. This will include an inventory and condition survey that will enable the Council to better prioritise the maintenance and repair of the footways in the county.

The County Council will continue to monitor the use of latest technology to help ensure the relevance and reliability of data collection and to consider value for money and affordability.

4.3.3 Rights of Way network

A number of initiatives will be employed by the County Council to maintain its Rights of Way network to ensure that it remains available for all sections of the community to use. This will include signing and waymarking projects; replacing stiles for easy access kissing gates; the biannual 'ploughing and cropping' awareness campaign; refurbishment of bridges; surfacing (particularly utility paths serving local communities for accessing local services); and within available resources, a strategic whole parish approach to improvements (working and identifying priorities with parish councils).

Inspections and targeted surveys will be regularly undertaken by officers and a number of volunteers. Defect reports will also be collated through email, phone calls and written communication. Service levels will be determined based on the available resources and defects and reports will be prioritised by public safety and strategic and local importance.

4.3.4 Bridges and structures

Bridges form an integral and often critical part of the highway network and there are 715 bridges with a span of over 1.5m in the county as detailed in table 23 below.

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Table 23: Bridges with a span of over 1.5m

	No. of bridges > 1.5m span		
	A roads	B roads	C and Unclassified roads
Nottinghamshire	189	70	456

Source: Nottinghamshire County Council

The County Council has policies to carry out 'general inspections', 'principal inspections' and 'strength assessments' for all bridges and culverts on the highway network, to carry out appropriate maintenance, refurbishment and strengthening work and to ensure that the bridge stock is maintained in a proper state to safely carry traffic loads. Such policies will be reviewed periodically to ensure their effectiveness.

Revenue funded general inspections currently take place every two years and capital funded 'principal inspections' take place at frequencies not exceeding 10 years, significant structures (railway and major river bridges) not exceeding six years and under water inspections not exceeding three years. Local performance indicators are used to monitor performance in relation to the completion of bridge inspections. The extensive assessment programme allows for the identification of both current and future problems concerning bridges and structures. The levels of inspections and performance indicators will be reviewed periodically to reflect the levels of available funding.

The County Council will prioritise bridge strengthening to ensure that structures supporting the public highway can carry 40/44 tonnes wherever these might reasonably require access. The County Council has carried out a prioritised programme of bridge strengthening but inspections continue to identify structures, particularly culverts, which require remedial works. It is accepted that certain bridges do not need to carry 40/44 tonne vehicles and that in certain locations weight restrictions are acceptable, and where this is the case weight restrictions have been applied.

The County Council will also undertake a programme of upgrading work to bridges and structures. Parapet replacement, protection and improvement work is in progress following individual risk assessments. There are particular concerns with weak timber parapets, post and rail parapets, masonry baluster parapets and sub-height parapets. In certain locations parapet protection work has been carried out, such as trief kerbing and safety barriers. Future work programmes are based on the inspection regime, life-cycle planning and the overall condition of the bridge, as indicated by the Bridge Condition Index.

Currently 17 bridges require upgrading (for example, parapet replacement, protection and improvement work) and a further 22 require waterproofing or re-waterproofing. Programmes of upgrading, as well as bridge deck waterproofing and re-waterproofing will be developed and prioritised utilising the inspection results and other relevant information contained in the HAMS.

There are fourteen significant steel bridges in the county as well as many bridges with steel components such as parapets. Such bridges require frequent painting and a prioritised programme of works will be developed based on the inspection routine results and other relevant information contained in the HAMS.

The County Council record the details and locations in the county where bridge strikes are known to have occurred. The Council will continue to work in partnership with the bridge owners to develop a programme of works to reduce such bridge strikes as funding allows.

In order to improve the effective management of County Council owned bridges, the Bridge Condition Indicator (BCI) has been used for all general bridge inspections since 2003. In 2010, Nottinghamshire's bridge stock condition scores are 82.4 for critical elements and 89.5 for overall bridge stock. When compared to 2005, the 2010 indicators show significant improvements from 87.2 to 89.5 for the overall stock score and 77.4 to 82.4 for the critical stock score.

All bridge works are carried out with due regard to our environmental responsibilities and consultations take place at an early stage with the Environment Agency (EA) and Wildlife Agencies including English Nature. Consultation with the EA and internal drainage boards is important particularly for works taking place in flood plains. For works on listed structures, consultation takes place with English Heritage. The Highways Agency are consulted for bridge works which will effect flows on the trunk road network, in line with our Traffic Management Act duties.

4.3.5 Street lighting

The County Council is responsible for approximately 91,000 streetlights throughout the county which provide benefits in terms of:

- reduced numbers and severity of road casualties
- reduced levels of crime and the perceived fear of crime
- creating a friendlier night time environment that encourages walking and cycling, with an enhanced perception of community safety
- improving accessibility for socially excluded groups, particularly for women, children and the elderly, and
- stimulating the night time economy – letting a town or city continue to thrive after dark.

Well designed and maintained street lighting can therefore play an important part in encouraging the use of public transport, cycling and walking, accessibility and regeneration initiatives. The age and condition of the existing lighting stock is a cause for concern however, and at the beginning of 2010 there were approximately 4,000 ‘poor condition’ lighting columns in Nottinghamshire; with a very large backlog of ‘average’ condition columns. The Council will continue to develop and review a long-term strategy for the replacement of the Council’s street lighting stock.

The County Council will continue to undertake a bulk clean and change cycle for street lighting on streets with significant traffic flows. A programme of day time and night time inspections to help identify a prioritised replacement programme will also be undertaken on streets with significant traffic flows, and where street lighting has been introduced to improve road safety. The Council will carry out the ongoing identification of safety critical street lighting, both in terms of road and community safety, in order to introduce an enhanced maintenance regime. The frequency of maintenance and inspections will be reviewed periodically to ensure that they continue to offer value for money within the available resources and requirements of service delivery.

A prioritised replacement programme of the below standard columns will take place based on risk management from structural condition surveys and local needs identified through consultation and the information contained within the HAMS. This will include condition assessment, service standards, performance monitoring, asset valuation, optimisation and budget considerations, performance gaps, risk assessment, routine maintenance plan, upgrading plan, disposal and sustainability and future developments. The life-cycle plan for the County's street lighting asset, will be used to identify a range of revenue and capital funding options and performance outcomes that will enable value for money options to be identified.

The County Council and its district council partners have historically attracted external funding for street lighting upgrades, particularly in relation to matched funding for fear of crime schemes. These schemes are identified by consultation with district councils and local community groups. Future external funding bids will be considered where funding opportunities arise and where the Council and its partners has sufficient resources to match such funding.

The County Council continues to improve its lighting outage rate and has systems to monitor average outage times. Current targets are to make repairs within less than seven days for County Council faults and less than 15 days for Distribution Network Operator (DNO) faults. Such indicators will continue to be monitored and performance reviewed to ensure effective service delivery.

The County Council will also review lighting in terms of energy efficiency. The County Council is implementing a review of the levels of lighting provided which is detailed within Section 7.2 – CO₂ emissions, of this document. In addition to this the Council will re-tender the energy supply contract upon expiration using an electronic auction and giving full consideration to the use of green energy. The Council will monitor the effectiveness of alternative light sources (such as LEDs for use as the replacement of life-expired equipment) as part of a long-term investment programme. The use of lower energy white light sources in new lighting schemes will also be promoted where appropriate.

The County Council will also periodically renegotiate and implement service level agreements with Central Networks for street lighting connections and disconnections using the national service level agreement as a framework.

4.3.6 Flood risk management

The Flood and Water Management Act 2010 and the Flood Risk Regulations gave county councils a new major flood risk management/drainage management role as a Lead Local Flood Authority. There are some smaller implications for emergency planning, but the major new role is effectively one involving engineering, co-ordination, collaboration and leadership which the Government suggests should sit with the County Council's existing highway duties and responsibilities. These new responsibilities will impact on the way the highway assets are managed and the County Council will need to ensure that its highway drainage policy is consistent with its flood risk management policy.

Whilst the Environment Agency (EA) will retain a strategic overview role, the local leadership role for flood risk management will be given to county councils. In summary the role will comprise:

- setting a local strategy for flood risk management
- providing leadership and accountability for ensuring effective management of local flood risk from ordinary watercourses, surface run-off and groundwater
- the production of local flood risk assessments, maps and plans including an asset register
- improving drainage and flood risk management expertise
- co-ordination of Surface Water Management Plan production
- management of highways drainage
- prioritising local investment in flood risk management
- consenting and enforcement powers for certain works affecting ordinary watercourses (these are watercourses not maintained by the EA as main rivers)
- promoting partnerships with local planning authorities to produce strategic flood risk assessments
- co-ordination of efforts/investment from all parties involved, and
- becoming a sustainable drainage systems (SUDS) approval authority.

To enable the Council to deliver its new role the Act includes:

- powers to carry out works to reduce surface water run-off and groundwater flood risk, and the County Council will have a duty to undertake flood risk management functions in accordance with local and national strategies
- the integration of local flood risk management decision making into local asset management and investment programmes, and
- the County Council will remain a Category 1 responder under the Civil Contingencies Act, and deliver local flood warnings.

The Government recognises that success will depend on greater co-ordination and co-operation between local partners and the County Council are considering methods to ensure effective partnership working with the necessary stakeholders.

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The County Council will produce Surface Water Management Plans to manage local flood risk, and to influence planning and investment decisions, delivering:

- co-ordinated and prioritised investment strategies and asset management
- clarity of roles to avoid duplicated effort across different organisations
- support for greater use of sustainable drainage systems (SUDS), and
- information to improve emergency planning decisions.

It is anticipated that national standards relating to sustainable drainage systems (SUDS) will be introduced governing the way surface water drainage systems must be constructed and operated for the majority of new developments, including roads. Developers will be required to seek approval for new surface water drainage systems from the County Council as the approving body and there will be a requirement for county councils to adopt and maintain new SUDS which affect the drainage of properties and roads. The requirement for future maintenance of SUDS will potentially create a significant financial liability for the County Council, and work will be needed to develop standards and levels of expertise.

The Flood Risk Regulations which came into force on 19 December 2009 place deadlines and duties on lead local flood authorities (county councils) to:

- undertake Preliminary Flood Risk Assessments by 22 Dec 2011
- identify flood risk areas by 22 Dec 2011
- develop Flood Hazard Maps and Flood Risk Maps by 22 Dec 2013, and
- develop Flood Risk Management Plans by 22 Dec 2015.

The production of the Preliminary Flood Risk Assessment including the identification of flood risk areas in Nottinghamshire is well underway. Information has been gathered from all of the district councils and internal drainage boards, as well as localised flooding hotspots from parish councils.

The HAMS system will be utilised to analyse all of the information and data gathered on the drainage assets and Preliminary Flood Risk Assessment.

4.3.7 Partnership working

As part of the Midlands Service Improvement Group, the County Council continues to work in partnership to develop and learn from best practice on all of its highway assets, for example in the development of the transport asset management plan and highway asset management system and to benchmark performance with other similar authorities.

The County Council has entered into external partnership arrangements to achieve cost savings and efficiencies in maintenance and transport improvements service delivery. Such partnership arrangements will continue to be considered and reviewed to ensure the Council gets the greatest value for money from its delivery operations as well as procurement opportunities.

Procedures are in place to consult with, and discuss, the impact of maintenance schemes (developed by both the Highways Agency and ourselves) with the Highways Agency. Similarly, the Environment Agency are consulted on maintenance schemes through the scheme design process at a project level on both scheme design, as well as the type of materials used during the implementation of the scheme. Such procedures will be reviewed periodically to ensure their effectiveness.

The Council will also continue to work in partnership with neighbouring authorities, sharing best practice and helping to aid cross-boundary working on all of its highway assets. For example, the Council has reciprocal arrangements for routine maintenance and salting with neighbouring authorities to maximise the effectiveness of available resources and deliver value for money; and on abnormal load route planning and in connection with bridges on highway authority boundaries.

4.4 Improving connectivity to inter-urban, regional and international networks, primarily by public transport

Improving connectivity to all of the transport networks is key to improving accessibility as well as supporting the local, regional and national economy. Generally the coverage of the public transport network is good but there is need for reductions to journey times and increased frequencies. Improvements to the local public transport networks and accessibility is included in Chapter 6 – Improve access to key services, particularly enabling employment and training opportunities, of this Plan; within the Accessibility Strategy; and within the Integrated Passenger Transport Strategy.

Local rail and bus services contribute to lessening congestion and opening up access to the wider network, particularly into Nottingham and the local centres, but they also contribute to accessibility for the often rural communities served. Public transport services, and particularly rail services, provide important connections to further afield.

Longer distance travel by coach and rail services will be promoted as an alternative to the private car as appropriate. This will include general promotion through the County Council's website and links to journey planning websites. Further information on promotion is included within Section 6.2 – Provision of an affordable, reliable, and convenient public transport network, of this Plan.

4.4.1 Improving services

The Council will aim to improve services to local and longer distance destinations, including through input to future re-franchising of services. Through local meetings and from groups and individuals, the Council invites, and is continuously open to, suggestions about local train services. These suggestions include relatively detailed points, for example about the timing of particular trains, which may seem small but are important to those members of the public who are directly affected. Where possible the Council will include some of these consultation proposals in its franchise input.

To improve connectivity the County Council will continue to negotiate and campaign for the introduction of the following through rail services that do not currently operate:

- Newark to Derby & Birmingham
- Nottingham to Cambridge
- Nottingham to Warsop, Edwinstowe & Ollerton
- The Robin Hood Line (Kirkby and Mansfield) to Retford.

In addition, whilst the following are not within the county, the Council would support the reopening of rail stations which would usefully enlarge the range of destinations from Nottinghamshire's stations, particularly at:

- Ilkeston and Clay Cross on the Nottingham - Leeds line (as they respectively had the 4th and 6th best cases in England for opening stations on existing lines in the ATOC Connecting Communities Report – June 2009), and
- Waverley (subject to the comprehensive redevelopment proceeding) on the Retford - Worksop - Sheffield line.

The County Council will look to provide coach parking and pick-up facilities as part of existing and new bus station facilities whenever feasible to help provide the opportunity for longer distance coach travel.

The County Council will press for new bus and rail services, stations and other infrastructure as part of proposed new developments; as well as improvements to existing services, stations and infrastructure. Any such additional rail services would have to be specified by DfT, with whom the Council will negotiate, in particular over the service specification of future franchises. The Council will seek to utilise existing funds, and developer contributions where appropriate, to take any measures that would enhance the business case for the introduction of these additional services.

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4.4.2 Rail

The Council will seek substantial improvements to journey times on most routes, and to frequencies on some routes, particularly where they are currently hourly or less as detailed in tables 24 and 25 below.

There is a major synergy between journey times and frequency. A key part of the Council's strategy is that the journey time reductions, as well as increasing the attractiveness to passengers, will also reduce the cost of increasing frequencies. It does this by enabling each train set and crew to perform more trips if each trip can be completed quicker.

Journey time improvements

Rail service improvements will be sought along most routes as detailed in table 24 below.

Table 24: Aspirational rail journey time improvements

Route	Journey time (minutes)		Comment
	Current	Target	
Nottingham to			
London	101-104	90	90 minutes is the target for the 'fast' train each hour, as from 2014
Birmingham	77 or 78	60 - 65	60 minutes is the target as from 2014, for at least 1 train per hour, with the second train per hour taking no more than 65 minutes
Sheffield	50 - 57	46 - 50	As from 2014, after completion of the enhancements in the Nottingham resignalling scheme, and other works
Manchester	111	85	This 85 minute target is only achievable if this service was to use Dore south curve i.e. avoiding Sheffield. That would require completion of the 'Manchester Hub' scheme during the LTP3 period, and additional services between Nottingham-Sheffield which could serve Ilkeston, and between Sheffield and Manchester as envisaged by the 'Northern Hub' scheme
Leeds	120	100	From as soon after 2014 as possible
Worksop	66 - 69	63 - 66	As from 2014
Lincoln	52 - 69	35	As from 2015. The 35 minute journey time would be with 1 stop at Newark. As well as infrastructure works (detailed within the Implementation Plan) this is dependent on provision of a second train per hour to serve intermediate stations (see table 25 below)
Skegness	128-134	120	Target is aspirational
Norwich	159	150	Target is aspirational
Newark to London	73-95	73-80	Depends on delivery by Network Rail and the Office of Rail Regulation of the long-promised 'standard optimum pattern' timetable on the East Coast Main Line
Retford to London	82-97	83-90	
Retford to Sheffield	37 - 45	30	The faster journey times would be with stops at Worksop and Kiveton Bridge. As well as infrastructure works detailed in the Implementation Plan this is dependent on provision of a second train per hour to serve intermediate stations
Worksop to Sheffield	26 - 29	22	

Source: Nottinghamshire County Council

Frequency improvements

Most services already have a good frequency, with trains generally between:

- Nottingham to/from London, Derby & Birmingham, Mansfield, and Chesterfield & Sheffield every 30 minutes, and
- Nottingham to/from Cardiff, Manchester/Liverpool, Leeds, Worksop, Skegness and Peterborough/Norwich; Mansfield to/from Worksop; and Retford to/from Sheffield/Worksop and Lincoln every 60 minutes.

There are services, however, which would benefit from more frequent services which are detailed in table 25 below.

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Table 25: Aspirational rail frequency improvements

Route	Frequency (minutes between trains)		Comment
	Current	Target	
Nottingham to Newark & Lincoln	60	30	One train to run express, with 35 minute journey time, and the other to serve intermediate stations, with Collingham, Fiskerton, Lowdham, Burton Joyce and Carlton having a train every hour, and Rolleston, Bleasby & Thurgarton at least every 2 hours
Newark to London	20 - 40	30	Total number of trains is acceptable, but they need to be spaced at even intervals (which they currently are not, sometimes coming in bunches followed by some long gaps)
Retford to London	60-90	60	
Worksop to Sheffield	60	30	One train to run express, with 22 minute journey time, and the other to serve intermediate stations
Nottingham to Grantham	11 - 49	30	There are currently two trains per hour, but they are very badly spaced, with the stopping train following shortly after the fast train. In addition, the service to most intermediate stations is insufficient and irregular. The different stopping pattern prevents perfect spacing for Nottingham - Grantham passengers, but the Council will press for changes to optimise it as far as possible, including in the evenings. The Council will also press strongly for a regular service every hour in each direction, throughout the day, at Netherfield, Radcliffe, Bingham, Aslockton and (as a destination for county residents) Bottesford

Source: Nottinghamshire County Council

4.4.3 Rail infrastructure improvements

Delivering the target journey times will require carefully chosen enhancements to the rail infrastructure which the County Council will press for, including improvements on the:

- Nottingham to London line
- Nottingham to Birmingham line
- Nottingham to Manchester line
- Nottingham to Leeds line
- Nottingham to Worksop line
- Nottingham to Lincoln line
- Nottingham to Skegness line
- Nottingham to Norwich line
- Newark and Retford to London line, and
- Retford and Worksop to Sheffield line.

Further detail on the infrastructure improvements is included in Section 4.5.5 – Rail infrastructure improvements of the Implementation Plan 2011/12-2014/15.

Rail electrification

Further detail on the electrification of the Midland Mainline (MML) is included within Section 7.2 – CO₂ emissions, but the Council supports the electrification of the MML and will lobby government for it to happen at the earliest opportunity.

4.4.4 High-speed rail

In October 2010 the Government announced that it was proceeding with plans to develop a 'Y' shaped high-speed rail network, consisting of a line from London to Birmingham, with arms from Birmingham to Manchester and from Birmingham to Leeds via the East Midlands and Sheffield (both of which would have a station).

The Council very strongly supports the establishment of a high-speed line through the East Midlands. There would be very large benefits to the local economy from having the very fast journey times to London, and also to Birmingham, Sheffield, Leeds, Newcastle and Scotland that a high-speed network would provide.

The purpose of high-speed rail is to move large volumes of people quickly between places where large volumes of people and economic activity are concentrated and therefore the most appropriate place for such a station is in the centre of Nottingham. In addition, the centre of Nottingham is, in aggregate, most easily accessible to the greatest number of Nottinghamshire residents, especially from Broxtowe, Gedling, and Rushcliffe, but also, via local rail services, from

Ashfield and Mansfield. Any new station facilities would, however, have to have regard for the existing natural and built landscape and would be subject to the necessary environmental and habitats assessments.

The Council will work with the company established by the Government, High-Speed2 Ltd, to develop plans for the eastern route. Details of the route and location of the station are expected to be decided in early 2012. Inevitably such a massive project has long timescales for construction, and the East Midlands section is not expected to open before at least 2026. In the meantime, as set out in this section of the LTP3, the Council will continue to press for improvements to rail services on the existing 'classic' network to the key locations that should eventually be served by high-speed rail services, in particular London, Birmingham, Leeds and Newcastle.