

6. SAFER ROADS

Two key objectives of the LTP's overall transport strategy are to encourage more walking and cycling. To ensure that the transport objectives are complementary, much of the County Council's travel awareness and road safety functions are housed within the Road Safety Team. This has proved extremely successful in delivering road safety education, training and publicity whilst encouraging walking and cycling and developing travel plans at schools to reduce congestion.

It is therefore appropriate that the County Council's road safety strategy includes aspects of its travel awareness initiatives as well, and these are reflected within the County Council's Cross Service Road Safety Improvement Plan (2003-2010) which was launched in 2003. The plan has close links to the Community Safety Strategy to help build safer communities and several tasks within the Road Safety Plan are aimed at contributing to both road and community safety. Similarly, the Road Safety Plan has significant contributions to make towards regeneration, quality of life and accessibility strategies throughout the County, and these contributions are reflected within the tasks that are detailed within it. The reduction in accidents also has an impact on levels of congestion caused by accidents, resultant air quality and its obligations under the network management duty. The Road Safety Plan is available to read on the County Council's website at www.nottinghamshire.gov.uk/roadsafetyplan.pdf

The Road Safety Plan was drawn up in consultation with all internal and external bodies that have a role in casualty reduction in Nottinghamshire as well as Elected Members. The Road Safety Plan includes tasks to improve safety for all road users of all ages (children, elderly, pedestrians, cyclists, drivers, passengers, motorcyclists, and horse riders).

6.1 TRANSPORT OBJECTIVES FOR ROAD USER SAFETY AND TRAVEL AWARENESS (RSTA)

The objectives in the LTP most relevant to RSTA are to:

- Improve road safety (including perceived dangers), particularly for vulnerable road users and those identified as at 'higher risk'
- Encourage safer walking and cycling for short journeys, including travel to school, shops and other local facilities to reduce congestion, improve accessibility, improve air quality and improve health
- Reduce the fear of crime and improve accessibility
- Increase information and awareness of road safety and sustainable transport alternatives to reduce congestion, improve accessibility, improve air quality and improve health
- Minimise the number of accidents and thereby their impact on the highway network to help comply with our network management duty.

In practical terms this area of work cascades into three streams of work:

- Casualty reduction
- Accident prevention
- Changing people's travel behaviour.

These objectives and areas of work will be the basis for determining practical actions to help achieve the shared priorities within the Plan.

6.2 TARGETS

To help measure progress towards these objectives, targets have been set for road casualties and school travel and these are detailed within Chapter 13, Targets and Appendix B of the Plan.

Road casualties

The road safety strategy casualty reduction targets match the national targets set out in the Government's road safety strategy. Therefore by 2010 it aims, throughout Nottinghamshire, to achieve, compared to the averages for 1994-98:

- 40% reduction in the number of people killed or seriously injured
- 50% reduction in the number of children killed or seriously injured
- 10% reduction in the number of slight casualties per 100m vehicle kilometres.

Whilst these targets are still considered to be challenging, the programme of measures within the Road Safety Improvement Plan is felt to be sufficiently comprehensive and robust to achieve them, and the current performance for the whole of Nottinghamshire is on track to meet all of the above targets; and North Nottinghamshire is reasonably on track, especially considering recent strategy revisions.

Full details of the longer term targets and trends, as well as year on year progress to date in North Nottinghamshire are detailed in the graphs in Appendix B. Current performance towards the above targets is most encouraging, and in North Nottinghamshire it is on track for child KSI and slight road casualties. Whilst the KSI for all ages is slightly above the trajectory it is considered that the tasks included within the Cross Service Road Safety Improvement Plan (2003-2010) will help the Council to meet this target.

Local targets have also been adopted to help monitor/manage the identified casualty problems of motorcycle and rural casualties (these problems are detailed in section 3.2 of Problems and Opportunities). The targets are detailed within Chapter 13 (Targets and trajectories) and Appendix B which details the rationale for the targets/trajectories as well as detailing the risks and management of such risks.

The table below details the numbers of casualties in North Nottinghamshire with comparisons of 2004 with previous years.

Casualty type	1994-98 average	2003	2004	Comparison of 2004 with 2003		Comparison of 2004 with 1994-1998 average	
				Change	% Change	Change	% Change
KSI (all ages)	486	412	404	-8	-1.9%	-82	-16.9%
Child KSI	77	38	55	+17	+44.7%	-22	-28.6%
Slight casualties (all ages)	2034	1953	1823	-130	-6.7%	-211	-10.4%

Table 6.1 Numbers of casualties compared to previous years

Stretch targets

The County Council has undertaken a number of challenging stretch targets through a Public Service Agreement with the Government, including one relating to road safety. The road safety target being a reduction in the number of KSI road casualties in the whole county to 599 by the end of 2005 (equivalent to a reduction of 27% from the 1994-98 average). Indications are that this target has been met, and it will be reported on in the review of LTP1 to be submitted in July 2006.

Nottinghamshire County Council Strategic Plan targets

The County Council's Strategic Plan 2001-05 recognised the need to prioritise casualty reduction and also included a road safety target to reduce the number of KSI child road casualties by 28% from the 1994-1998 average by the end of 2005. As can be seen in the table above, Nottinghamshire appears on course to meet this target, and early indications are that it has been met. This will be reported on in the review of LTP1 to be submitted in July 2006.

6.3 ROAD SAFETY STRATEGY PROGRAMME OF MEASURES

The road safety strategy and the associated programme of measures to achieve its aims is set out in the Cross Service Road Safety Improvement Plan (2003-2010). Its action plan details the measures undertaken to reduce road casualties under the following nine headings:

- Investment
- Casualty reduction initiatives - travel awareness
- Operational improvements
- Communication and access
- Policy and strategy
- Sustainability
- Performance, monitoring and review
- Partnerships
- Development

Investment

The County Council currently spends in the region of £3m annually through various budgets which contribute to road safety and travel awareness throughout the administrative County of Nottinghamshire. Around £2.5m is directed at reducing casualties through engineering methods with approximately £250,000 spent on improving disabled facilities. Over £150,000 is spent on road safety and travel awareness education, training and publicity, over £500,000 on safer routes to school (£250,000 of which is allocated for North Nottinghamshire) and around £400,000 on the school crossing patrol service. A further £9.5m within the highway maintenance and winter maintenance budgets are influential in providing a safer environment for road users.

Budgets in 2005/2006 for Nottinghamshire for road safety service areas are as follows:

Activity	Budget	Amount
Accident engineering	capital	£ 1,400,000
	revenue	£ 280,200
Safety audit	staff costs	-
Disabled facilities	capital	£ 230,000
Safer routes to school/school travel plans	LTP settlement	£ 565,000
School crossing patrols	revenue	£ 402,400
Road safety education	revenue	£ 164,000
Awareness raising/publicity	revenue	£ 29,400
TOTAL COUNTY-WIDE	All	£ 3,071,000

Table 6.2 Road safety service budgets (for the whole of the County)

Current staffing resources allocated to road safety are as follows:

Service area	Staff no.s (FTEs)	Work undertaken
Accident investigation (including 1 PSA funded and 1 camera partnership short-term posts)	18	Safety engineering, safety audit, data management
Road safety and travel awareness (including 1 ACORN funded project officer short-term post)	17	Education, publicity, safer routes to school
Travel plans	4	School travel plans
Traffic services	1.1	strategy, policy, monitoring, research
TOTAL	40.1	

Table 6.3 Current road safety staffing resources (for the whole county)

In addition there are 230 school crossing patrol sites across the County.

6.4 POLICY AND STRATEGY

Since the Accident Investigation Unit and Road Safety Team were established in 1973 Nottinghamshire has constantly reviewed its performance as well as accident trends, and adjusted its approach accordingly in order to increase its success in reducing casualties.

The Cross-Service Road Safety Improvement Plan (2003-2010) aims to help improve the efficiency and effectiveness of the service, enhance partnership working, and focus resources towards key areas of road safety work to achieve national road safety casualty reduction targets by 2010.

The plan itself contains a range of actions from education programmes to highway maintenance programmes. All of the tasks are regularly reviewed and reported on to ensure their successful progress and therefore the effectiveness of the plan.

A Road Safety Board was established in 2003 consisting of officers representing the various strands of the County Council which make up the road safety service. Establishing the Road Safety Board helped to ensure a co-ordinated corporate approach to road safety service delivery as well as the close integration of strategies such as those relating to cycling, walking, motorcycling, accessibility, regeneration etc. and road safety. The Board also monitors and reviews performance on a quarterly basis, identifying weaknesses and risks to meeting targets so that strategy can be reviewed and revised to rectify any problems.

The Board also informs the County Council's political decision making and discussion through regular reports to the Environment and Sustainability Cabinet Member, Management Team, Corporate Management Board, Members Seminars and Select Committees.

A post has also been established to research casualty trends, identify road safety best practice, ensure policies are in place to meet the road safety service requirements, monitor the effectiveness of the different parts of the Cross-Service Plan and make recommendations for improvements to the strategy when necessary.

Policy and strategy continue to be reviewed annually based on the regular analysis of road accident and school travel data. In addition to this a comprehensive three year review of the effectiveness of the County Council's road safety strategy was undertaken in 2005 to ensure that it still fully meets the requirements of the service in delivering its casualty reduction targets. The review will also ensure that the road safety strategy remains focused on delivering the key outcomes in relation to:

- Improved safety (on the roads and in the wider community including reducing perceived dangers)
- Improved accessibility, air quality, congestion, fear of crime, health, regeneration, sustainability and the general quality of life in the County
- Helping to meet the Council's network management duty.

The review was carried out in two parts. The first part was carried out internally and included examination of road safety services and strategy delivered by other 'high performing' leading local authorities so that Nottinghamshire can learn from those offering enhanced services. This revealed that whilst the authorities' strategy are very similar to our own, different methods of delivering road safety education and publicity were identified. These are currently being considered further as to whether improved results can be achieved by using these methods. Where appropriate, other authorities' methods will be adapted to meet local needs. The second part of the review involved an external 'critical friend' carrying out an appraisal of our current policy and strategy.

The review has led to several recommendations to help meet our casualty reduction targets. These include:

- The need to enhance the ongoing programme of route management strategies particularly on the rural A-road network
- A stronger focus on speed management with a review of speed limit hierarchy and policies
- The prioritisation of additional measures identified for road safety education in terms of expected contributions to casualty targets and value for money.

An important development of service review has been the establishment of and a regular dialogue with key partners and stakeholders. Road Safety Forum was held with external stakeholders in July 2003 when the plan was presented and discussed with key organisations such as District Councils, Driving Standards Agency, Emergency Services, GOEM, Highways Agency, Local Education Authority, neighbouring local authorities, the Police, and Primary Care Trusts. This proved to be a very successful event and the Forum was held again in 2004 and 2005 and is to be held annually in future to ensure that partners have an input into policy formulation and strategy.

Partnership working and the blend of engineering, education and enforcement technology is at the forefront of Nottinghamshire's road safety strategy.

6.5 ROAD ACCIDENT DATA COLLECTION

Records of all injury accidents reported to Nottinghamshire Police (including those on City and Trunk roads) are collected, analysed, verified, validated and stored by the County Council using both computer and paper based systems. A close working relationship with the Police ensures that the accident data recorded is both comprehensive and accurate.

Accident problem sites as well as casualty trends are identified using the above data and a range of investigative methods and analytical tools. In total over 40 investigative approaches are used to identify casualty problems and their remedial action when necessary and cover a whole range of potential problems. During the period of this Plan particular emphasis will be placed on the following methods:

2005/2006 - vulnerable road users, lighting, surfacing, child pedestrians, rural routes, fatal and serious, traffic signals, motorcycles, safety camera sites

2006/2007 - lighting, surfacing, formal pedestrian crossings in darkness, fatal and serious, motorcycles, safety camera sites

2007/2008 - bends, speed, cycle accidents, fatal and serious, lighting, surfacing, child pedestrian, safety camera sites

2008/2009 - overshoots, icing sites, zebra conspicuity, rural routes, lighting, surfacing, speed, fatal and serious, safety camera sites

2009/2010 - urban pedestrians, T junctions, zebras and pelicans, lighting, surfacing, fatal and serious, motorcycles, safety camera sites

These investigative methods form the basis for pro-active road safety work by the County Council as well as work carried out by partners such as the police and fire service.

6.6 ROAD SAFETY AND TRAVEL AWARENESS EDUCATION

A forward programme of road safety training and publicity is developed each year to support national campaigns and to address identified local road safety and travel awareness issues. The wide ranging programme of education, training and publicity is provided by the Road Safety Team with support and complementary activity from the Council's media and publicity specialists. This programme receives strong support and commitment from the County Council, the current budget has been safeguarded to continue an efficient, proactive and innovative service to all users.

The table below details the County Council’s five year education, training and publicity programme for road safety, based on the concept of Life Long Learning. The table includes details of the education, training and publicity programmes aimed at addressing the problems identified within section 3.2.

Age	Subject	Outputs	Links to national RS strategy
0-5	Parents advice "toolkit"	<ul style="list-style-type: none"> In-car safety, early pedestrian skills and healthy travel options 	Safer children
			Safer pedestrians
			Safer vehicles
			Safer drivers
0+	Child car seat checks	<ul style="list-style-type: none"> In-car safety 	Safer children
			Safer vehicles
5+	Seat belts publicity and training	<ul style="list-style-type: none"> Support seat belt campaigns with local emphasis and statistics Target older children Adults targeted through additional PSA campaigns 	Safer vehicles
			Safer children
5-18	School Travel Plans	<ul style="list-style-type: none"> Promote healthy options, walking route audits, walking routes Implement RSE including pedestrian and cycle training Survey local views 	Safer children
			Safer pedestrians
			Safer cyclists
			Safer road use
			Safer vehicles
5-11	Child pedestrian training	<ul style="list-style-type: none"> Pedestrian training Practical skills training based on various individual topics including crossing roads, judging speeds of traffic, route planning, visibility - based on needs identified through child safety audit 	Safer children
			Safer pedestrians
			Safer cyclists
			Safer road use
7-11	Road safety Quiz	<ul style="list-style-type: none"> In-car safety, cycle, pedestrian and horse-rider skills, travel options and Highway Code for young road users - based on problems identified through child safety audit. 	Safer children
			Safer pedestrians
			Safer cyclists
			Safer road use
			Safer horse riders
7-14	TravelWise teachers curriculum based education pack	<ul style="list-style-type: none"> Promotes sustainable travel, safety and environmental issues 	Safer road use
			Safer children
			Safer cyclists
9+	Cycle training	<ul style="list-style-type: none"> Practical on-road training Promote RideWise adult training Promote cycle helmet wearing RSE on route planning 	Safer road use
			Safer cyclists
			Safer children
9+	Safety Zone	<ul style="list-style-type: none"> Multi-agency safety event Promote RSTA 	Safer road use
			Safer children
			Safer pedestrians
			Safer cyclists
5-18	Safer routes to school	<ul style="list-style-type: none"> Publicity/promotion of schemes 	Safer road use
			Safer children

			Safer pedestrians
			Safer cyclists
			Safer infrastructure
11-16	Move-up to secondary education	<ul style="list-style-type: none"> Inform/promote safer independent travel, healthy travel options, bus travel Cycling skills/road user skills 	Safer road use
			Safer children
			Safer pedestrians
			Safer cyclists
11-13	Road safety project	<ul style="list-style-type: none"> Introduce road safety project to cover in-car safety, cycle, pedestrian and horse-rider skills, travel options and Highway Code - based on problems identified through child safety audit. 	Safer road use
			Safer children
			Safer pedestrians
			Safer cyclists
11-18	Curriculum based education	<ul style="list-style-type: none"> Introduce programme of road safety and travel awareness education based on curriculum activities based on local needs Promote national lesson plans 	Safer road use
			Safer children
			Safer pedestrians
			Safer cyclists
			Safer drivers
11-18	Education through theatre	<ul style="list-style-type: none"> Promote/support road safety and travel awareness education through theatre productions 	Safer road use
			Safer children
			Safer pedestrians
			Safer cyclists
16-18	Pre/novice driver publicity and training	<ul style="list-style-type: none"> Promote/support DSA education programmes Promote/support Emergency Services education programmes Driver attitudes Hazard awareness and seat belt use Build awareness of vulnerable road users Introduce dedicated 'young driver' training scheme 	Safer drivers
			Safer road use
			Safer vehicles
17+	Adults with learning difficulties/disabilities training	<ul style="list-style-type: none"> Practical skills training including public transport, cycling, walking, in-car safety, crossing roads, judging speeds of traffic, route planning, visibility - based on needs identified through pre-course assessments 	Safer road use
17+	Motorcycle publicity and training	<ul style="list-style-type: none"> Promote CBT Established and have active involvement in shiny side up partnership, carrying out driver awareness campaigns and publicising dangers to motorcyclists Publicity and education aimed at different types of rider, eg. sports bike and scooter riders Motorcycle forum held quarterly Introduce 'young rider' training scheme 	Safer motorcyclist
			Safer drivers
			Safer road use
			Safer speeds

17+	Drivers publicity and training	<ul style="list-style-type: none"> Speed casualty reduction awareness Safety camera awareness Speed awareness courses Casualty reduction awareness relating to rural bends 	Safer motorcyclists
			Safer drivers
			Safer road use
			Safer speeds
			Safer pedestrians
			Safer cyclists
			Safer horse riders
17+ 17+	National Driver Improvement Scheme Proposed speed awareness courses	<ul style="list-style-type: none"> Hazard perception, driver attitudes, practical in-car training Driver awareness of all vulnerable road users 	Safer motorcyclist
			Safer drivers
			Safer road use
			Safer speeds
			Safer pedestrians
			Safer cyclists
			Safer horse riders
17+	Further development of driver development courses	<ul style="list-style-type: none"> Hazard perception, driver attitudes, practical in-car training Driver awareness of all vulnerable road users 	Safer motorcyclist
			Safer drivers
			Safer road use
			Safer speeds
			Safer horse riders
17+	Drink, drugs, drowsiness publicity	<ul style="list-style-type: none"> Support local/national campaigns in partnership with Police Publicity re: driver fatigue/company driver pressures 	Safer drivers
			Safer road use
17-25	Young drivers	<ul style="list-style-type: none"> Publicity re: speed, drink/drive, drugs, seat belts, loss of control Driver attitudes Build awareness of vulnerable road users Introduce occupational road risk education and publicity materials and distribute to employers 	Safer drivers
26-60	Drivers publicity and training		Safer road use
60+	Older drivers publicity and training	<ul style="list-style-type: none"> Travel options Feasibility of practical driver training Information and publicity re: fatigue, route planning, in-car safety Build awareness of vulnerable road users 	Safer drivers
			Safer road use
60+	Older pedestrians publicity and training	<ul style="list-style-type: none"> Publicity and information Promote/publicise new pedestrian facilities Proposed practical training for elderly road users 	Safer road use
			Safer pedestrians
			Safer infrastructure

Table 6.4 Education, training and publicity programme

6.7 LOCAL SAFETY SCHEMES

In 2004, 32 local safety schemes were implemented in North Nottinghamshire. Identified through analysis of casualty data, the schemes are prioritised on a First Year Rate of Return (FYRR) accident savings basis, with each scheme achieving at least predicted 200% savings. The type of scheme implemented depends on the type of problems and engineering solutions identified, for example traffic calming in urban residential areas such as in Northfield estate in Mansfield Woodhouse, or safety cameras on rural lengths with speed problems such as on A631 on the Scaftworth and Gringley By-passes.

Where it is predicted that a scheme will not meet the 200% savings they are considered and prioritised within other elements of the Council's programme of integrated transport measures.

Between 2001 and 2003 a further 77 local safety schemes were introduced in North Nottinghamshire. Analysis into the effectiveness of these 77 schemes is detailed in the table below.

Year of implementation	No. of schemes	Before accidents per annum	After accidents per annum	Actual savings per annum
2001	21	58.30	41.32	16.98
2002	30	60.77	42.00	18.77
2003	26	53.51	32.00	21.51
Total	77	172.58	115.32	57.26

Table 6.5 Analysis of effectiveness of Local Safety Schemes

(Before accidents are based on accidents occurring for a minimum of 3 years before implementation. After accidents are based on all the years after the year of implementation up to 31.12.04)

As can be seen in the table above, the schemes have produced significant casualty savings. Each scheme is monitored to ensure it is effective, and where schemes do not meet the predicted 200% FYRR accident savings they are re-evaluated and further improvements made at the location.

Participation in the Regional Best Value Group Partnership helps to ensure that the County Council shares information and best practice and learns from others so that new techniques can be applied to existing problems. Examples of such techniques that have been adopted from other authorities include the use of flicker boards at roundabouts, intelligent cat's eyes and the development of the use of inter-active road signs.

The County Council has pioneered road safety engineering measures since the formation of its Accident Investigation Unit in 1973. Some of the techniques employed are summarised below:

- Area-wide traffic calming schemes
- Signing and lining improvements (including inter-active signing)
- Surface improvements and anti-skid treatments
- New and improved street lighting
- New and improved traffic signals
- New and improved junctions
- Geometric improvements
- Red light and safety cameras
- Improvements for vulnerable road users such as cycle routes, pedestrian and cycle crossings and refuges.

In addition, all highway improvement schemes costing over £5,000 are subjected to the safety audit process. This involves a three stage examination of the proposals, from the preliminary design to post-completion inspections to highlight and remove potential safety problems, thus reducing the potential for death and injury in future years.

The County Council is a member of the East Midlands Safety Audit Forum (part of the East Midlands CSS) which gives the authorities in the region the opportunity to learn from one another through sharing best practice and exchanging views on how to deal with problems at specific sites.

6.8 DEPRIVED AREAS

The decline of the coal industry in North Nottinghamshire over the last 20 years led to the County Council becoming one of the first authorities to recognise and investigate the connection between road safety and deprived areas. The process of investigating areas of deprivation and applying accident remedial schemes has therefore been ongoing for a number of years. The continued investigation of areas of deprivation is also a key action within the Cross Service Road Safety Improvement Plan (2003-2010).

The County Council's publication 'The Condition of Nottinghamshire' is used to identify the most deprived wards in Nottinghamshire and casualty reduction methodologies are then used to identify road casualty sites and characteristics within these wards.

During the last 11 years (ie. to the end of financial year 2004/05) the County Council has spent £2.23m on casualty reduction traffic calming schemes alone in Nottinghamshire. Significantly more than £1m of this funding has been spent in 16 of the most deprived wards in the county. This investment has saved approximately 400 accidents over this time period. At the latest DfT valuation of the benefits of prevention of road accidents (Highway Economic Note No.1 - December 2004), this has delivered a rate of return of over 1500%.

Links have been established with Accident Prevention Groups throughout the districts in North Nottinghamshire to help ensure that these cross service working groups consider road safety alongside their other work particularly within deprived areas.

6.9 CHILD SAFETY

The annual child safety audit is used to formulate the child road safety strategy.

In addition to the various education, training and publicity detailed in section 6.6 the following measures will continue to be used to help improve child road safety in Nottinghamshire.

Safer routes to school

The safer routes to school programme encompasses a variety of engineering measures both outside and in the vicinity of schools, aimed at improving road safety and increasing the number of pupils cycling and walking to school.

The types of measures installed range from signing and lining schemes, to formal crossing facilities, to the provision of cycle paths.

In a major piece of research work, casualty details of accidents occurring on school journeys during the last 10 years have been investigated to identify and prioritise potential



schemes. Very few child casualties occur in the vicinity of schools, so whilst child casualty locations are still used to prioritise schemes, they are also prioritised to coincide with the development of school travel plans to help encourage walking and cycling to school.

The targets for the introduction of school travel plans will mean an increasing demand for resources for new infrastructure to improve road safety around schools, as well as on the routes to and from them.

Between April 1999 and March 2005 a total of 114 safer routes to school schemes were installed throughout Nottinghamshire, exceeding the target of 103 schemes by March 2005. Of the 114, 56 schemes have been introduced throughout North Nottinghamshire improving road safety and cycling/pedestrian routes at 54 schools.

The most recent child safety audit identified that:

- Only 11% of 0-15 year old child pedestrian and cyclist KSI casualties (4 out of a total 35) occurred on school journeys
- 26% of 0-15 year old child pedestrian and cyclist slight casualties (26 out of a total 100) occurred on school journeys
- No child cyclist KSI casualties occurred on school journeys.

The audit also showed that of the total number of 5-11 year old and 12-15 year old pedestrian casualties (which includes KSI and slight casualties), 38% and 39% respectively were on school journeys. The majority of slight child pedal cyclist casualties on school journeys involved 12-15 year olds.

Based on this information the safer routes to school schemes will therefore currently focus primarily on journeys made to comprehensive schools.

It is important to note however, to add value to other Council programmes of work, such as the County Council's reorganisation of child services with child centres being located on school sites, coupled with schools reorganisation will also affect where safer routes to school are installed.

Subsequently a target to implement 203 safer routes to school schemes throughout Nottinghamshire by the end of March 2010 has been set.

Safer routes to play

The County Council is currently working with partners to introduce two pilot safer routes to play schemes in deprived wards within the Plan period. The intention of these schemes is to introduce safer cycling and walking routes to play areas, to improve road safety around the play area as well as to encourage play and therefore a healthier lifestyle. The effectiveness of the pilot schemes will then be monitored to determine whether further schemes will deliver value for money through casualty savings.

School crossing patrol service

The County Council provides a high quality school crossing patrol (SCP) service at 230 sites across the county, at an annual budget for 2005/2006 of £402,400 (including 131 sites in North Nottinghamshire).

There are no established national criteria for the provision of SCP sites, although the recognised level is a PV^2 count of 4.0 million. This count is based on the number of 5-11 year old pedestrians crossing within 50m of the location of the site (P) and the volume of traffic passing (V) through the site during the two busiest half hour periods in which the SCP would operate (usually the half-hour before and after school start and finish times).

The County Council however currently sets a significantly lower PV² count of 1.3 million, and establishes sites at any location that meets the criteria in both the morning and afternoon sessions. There is one proviso to this in that there should be a minimum of at least 15 children aged 5-11 years crossing at the site, in both the morning and afternoon sessions.

The SCP service not only offers safety benefits but also aims to encourage walking to school, thereby helping to promote health and reduce congestion. To ensure the effectiveness of the SCP service an evaluation of the service was undertaken in 2004/2005 which has resulted in several recommendations to re-focus service provision.

School travel plans

School travel plans (STP) also play a key role in the child safety strategy, however, due to the significant role they play in the strategy to address congestion STP are detailed within Chapter 8, Congestion.

Summary of strategy initiatives

Whilst analysis of casualty data and the child safety audit will determine the future strategy, a variety of ongoing initiatives detailed in the table below will continue to be used to help address the problem of child road casualties.

Initiative	Status	Description
Analysis of child accident/casualty data	Ongoing	To carry out a detailed child safety audit and to determine an effective child casualty reduction strategy.
Inter-active road safety education	Ongoing	Various inter-active road safety education delivered/ resources provided to schools, youth clubs/groups etc. for children of all ages.
Curriculum based road safety education	Ongoing	Promotion of DfT curriculum based education.
	Ongoing	Provision of curriculum based road safety based on local issues.
Road safety quiz	Ongoing	Annual quiz delivered to over 30,000 primary aged pupils.
Child cycle training	Ongoing	Carry out child cycle training across the County.
	Planned	Develop third stage of course for older school pupils.
IMPACT course	Ongoing	Joint initiative carried out with City/Fire Service on safety impacts of use of seat belts and stealing cars.
Safety Zone	Ongoing	Joint initiatives with Police/Fire/Ambulance Service on all aspects of child safety at various locations across the County.
Area wide road safety publicity	Ongoing	A series of general campaigns aimed at reducing child casualties such as magazines for pupils moving to secondary school, both individually and in partnership with neighbouring authorities.
Local road safety publicity	Ongoing	A series of specific campaigns aimed at reducing casualties/promoting road safety at certain locations/areas based on casualty data analysis.
Child pedestrian training	Ongoing	Child pedestrian training carried out as part of school travel plans.
	Pilot underway	Development of child pedestrian training scheme for reception age groups and parents, offered to all primary schools.
Education/publicity surrounding use of child car seats	Ongoing	Child car seat fitting campaigns carried out in partnership with trained fitters.
	Ongoing	Publicity/education to promote seat belt use amongst children.
Review/establish casualty reduction effects of education	Ongoing	Review of effectiveness of all education programmes to be carried out.
Safer routes to school schemes	Ongoing	Implementation of schemes across the county to help ensure safety of children on school journeys.
Safer routes to play scheme	Planned	Introduce pilot safer routes to play scheme in deprived area working with other partners/agencies.

School travel plans	Ongoing	In partnership with school communities, introduce school travel plans at all schools in the County to reduce congestion and improve accessibility, health and road safety.
School crossing patrols	Ongoing	To help pupils cross roads safely on their journeys to/from school.
Develop integrated approach linking road safety with education and school transport	Ongoing	Joint partnership working group to link road safety with education and school transport.

Table 6.6 Summary of strategy initiatives relating to child road safety

6.10 SPEED MANAGEMENT

The Cross-Service Road Safety Improvement Plan (2003-2010) has clear reference to developing speed management as part of the authority's casualty reduction work aimed at achieving the Government's 2010 targets. The methods detailed below are applied to both rural and urban roads throughout the County.

Traffic calming

The County Council applies criteria for the provision of the following:

- Urban traffic calming
- Rural traffic calming and village gateways
- Safer routes to school
- Pedestrian crossing facilities (zebra, pelican, puffin and toucan)
- School crossing patrols.

The first three subjects are detailed within the **Traffic Calming Design Guide** whilst the County Council's **Highway Network Management Plan** (HNMP) details criteria for the provision of pedestrian crossings, and the **School Crossing Patrol Manual** caters for the provision of School Crossing Patrols (which will be reviewed once national SCP guidelines currently being developed by LARSOA are published).

All three of these documents are reviewed regularly, to ensure that they take account of current best practice. The HNMP was reviewed and updated in 2003, the Traffic Calming Design Guide reviewed and updated in 2004 and the School Crossing Patrol Manual being reviewed most recently and updated in 2005.

Traffic calming is installed in Nottinghamshire as a measure to reduce road casualties and/or as a measure to reduce through traffic to improve local environments. Most schemes have been in urban areas but a small programme for rural villages has also been implemented. The criteria for the provision of traffic calming is detailed within the County Council's Traffic Calming Design Guide to ensure that sites requiring the treatment most are prioritised accordingly.

The County Council has installed 29 traffic calming schemes throughout the county aimed at reducing vehicle speeds and improving road safety. Sixteen of these sites are located within North Nottinghamshire.

Monitoring of these schemes indicates that on average 49 accidents per year are saved as a result of them.

20mph zones

The County Council is currently drafting a proposed 20mph speed limit policy and four pilot sites are to be identified including variable 20mph speed limits outside schools. The pilot speed limits will be monitored thereafter for their effectiveness in reducing vehicle speeds and road casualties, in order to determine their value for money.

Village speed limits

The County Council has a policy and programme for the introduction of appropriate speed limits at villages throughout Nottinghamshire to help address the issue of speeding in rural areas and reduce the resultant accidents and casualties.

A policy and programme of works has been developed for the introduction of speed limits at villages throughout Nottinghamshire to help address the issue of speeding in rural areas and reduce the resultant accidents. Phase one of this programme is the introduction of 30mph speed limits in villages with a history of accidents. Sixteen villages have been prioritised for treatment and phase one of the programme will be completed in 2006.

Phase two of the programme will look at the introduction of reduced speed limits at remaining villages that currently have the national speed limit but no accident record and a review of villages with 50mph speed limits. The introduction of phase two will be determined once sufficient time has passed to ascertain the effectiveness of the measures installed so far (in terms of casualty and speed reduction) and Government's new Traffic Advisory Leaflet "Setting Local Speed Limits" has been finalised.

As part of the new road safety funding arrangements, speed limits will be reviewed on all A and B classified roads by 2011, as well as any other road which have poor casualty histories.

Safety cameras

Safety cameras have a major part to play in reducing speeds, particularly on rural roads with a history of accidents. The County Council is a member of the Nottinghamshire Safety Camera Partnership along with a number of other road safety agencies in the area. Each of the three local highway authorities, Nottinghamshire County Council, Nottingham City Council and the Highways Agency is represented on the Partnership's Steering Group alongside the Police. Staff from both the City and County Councils' Accident Investigation and Road Safety Teams sit on the Partnership's Technical and Education working groups alongside representatives from the Police, Highways Agency and Ambulance and Fire Service where appropriate.

This ensures there is a co-ordinated consistent approach between the activities of the partnership and all of the road safety practitioners detailed above. It also ensures that the education programmes and activities devised to support the partnership are complementary.

Fixed safety cameras are installed on the roads with the worst casualty record where speed is known to be a significant contributory factor, and which meet the DfT site selection guidelines. Speed Violation Detection Deterrent digital cameras are also considered for the worst sites, particularly when casualties are recorded along a length of road rather than at particular locations (for example, on A631 in the Bassetlaw District and on A46 in the Newark and Rushcliffe Districts). Use is also made of the full range of other permanent cameras including Gatso, Truvelo and Redspeed equipment.

Mobile cameras are used in lieu of permanent cameras being installed, as well as on roads that have a casualty and speed history but do not meet criteria for permanent camera installation. The Partnership has a programme for installation of more static cameras on the key casualty reduction routes, and whilst it is recognised that mobile enforcement is not as effective overall, such enforcement will continue to be used where necessary.

The effects of the programme for safety camera installation in Nottinghamshire have not been fully realised yet although it is anticipated that these will have a significant impact on casualties during the lifetime of this LTP.

Revised road safety funding arrangements

The revised funding arrangements for road safety offer an opportunity to provide greater flexibility within road safety expenditure, as well as providing financial stability to help facilitate long-term planning.

The County Council only installs safety cameras where no other road safety measures can be used to address safety problems, and the revised arrangements recognise and support this approach.

The authority is currently in discussions with all the organisations/agencies involved in the existing safety camera partnership to develop a strategy to ensure that the new funding arrangements offer the greatest benefits in delivering casualty reduction.

It is anticipated that the existing Nottinghamshire Safety Camera Partnership will be maintained in principle but ultimately succeeded by a Casualty Reduction Group. Whilst safety cameras will remain an aspect of the work undertaken by the group, the responsibilities of the group will be much broader expanding into other areas of casualty reduction work.

Different partnerships already exist with both internal and external organisations/agencies involved in the delivery of casualty reduction. It is intended that the Casualty Reduction Group will be an amalgamation of many of these existing partnerships, helping the continuation of the pooling of resources to maximise casualty reduction benefits.

Inter-active speed signs

A policy has been developed for the installation of permanent and temporary inter-active signs in the County. Permanent signs are installed where the criteria, based upon recorded speeds and traffic flows at a location, are met or as part of safer routes to school. Temporary inter-active signs are also used in lieu of permanent signs being installed, as well as on roads that have a history of speeding vehicles but do not meet criteria for permanent sign installation.

Speed awareness courses

It is anticipated that speed awareness courses will be introduced in the county in accordance with the Association of Chief Police Officer guidelines. This course will complement the existing Driver Improvement Programme (run in partnership with the Police and City Council) offered to motorists as opposed to prosecution and will be based on the national template developed by DfT as best practice which will be available in the autumn 2006.

Summary of strategy initiatives

Whilst analysis of casualty data will determine the future strategy, a variety of ongoing initiatives detailed in the table below will continue to be used to help address the problem of speed related road casualties.

Initiative	Status	Description
Analysis of accident/casualty data	Ongoing	To determine effective speed management casualty reduction strategy
Surveys/data collection	Ongoing	Data is collected across the County to determine where speeding is an issue. Surveys are carried out to better understand perceptions on speeding and speed management techniques.
Area wide speed management publicity campaigns	Ongoing	A series of general campaigns aimed at reducing speeding such as cinema magazine advertising concurrent with appropriate films and bus back advertisements, both individually and in partnership with neighbouring authorities.
Local speed management publicity campaigns	Ongoing	A series of specific campaigns aimed at reducing speed at certain locations/areas based on casualty data analysis. Particular focus on rural areas.
Driver improvement programme	Ongoing	Continuation of existing programme for offenders run in partnership with Magistrates, Police and Nottingham City Council.
Driver improvement programme for speeding offenders	Planned	Development of existing driver improvement programme to include specific course for speeding offenders.
Pre-driver/young driver training	Planned	Development of driver training courses to include speeding and its consequences.

Safety camera partnership	Ongoing	Installation of fixed speed cameras and use of mobile speed cameras at casualty locations that meet criteria.
Highway design guide	Ongoing	Standards supplied to developers to ensure speeds are kept to appropriate levels on residential developments.
Local safety schemes	Ongoing	Implementation of local safety schemes to reduce speeds at locations where speed has been identified as a contributory factor in a number of casualties
Interim speed limit policy	Ongoing	Setting appropriate speed limits including village speed limits, 20mph zones etc.
Route Management Strategies	Ongoing	Implementation of whole length route treatment strategies to reduce speeds and reduce casualties.
Safer routes to school schemes	Ongoing	Implementation of safer routes to schools including speed reducing features where appropriate.
Traffic calming	Ongoing	Implementation of traffic calming at locations that meet criteria for casualty reduction.
Inter-active signs	Ongoing	Provision of fixed and mobile inter-active signs at locations that meet criteria.
Flashing amber warning lights	Ongoing	Use of automatic and manual flashing amber warning lights outside schools and playgrounds to warn drivers to reduce speeds when approaching areas where children will be present.

Table 6.7 Summary of strategy initiatives relating to speed management

6.11 WORK RELATED ROAD SAFETY

It is not currently possible to determine the level of the problem in Nottinghamshire. However, owing to high levels of work related vehicle collisions reported nationally, a one-day driver development course has been developed focusing on work related road safety. This utilises the resources of the existing Driver Improvement Programme, which is run in partnership with Nottinghamshire Police, Nottinghamshire Magistrates and Nottingham City Council.

The driver development course has been attended by County Council employees who drive as part of their job and it will also be offered to local businesses. The County Council is also currently finalising procedures for managing the occupational road risk of its own employees. In addition, it is also developing programmes of publicity and educational resources to promote the management of occupational road risk to all employers in Nottinghamshire.

Summary of strategy initiatives

Whilst analysis of casualty data will determine the future strategy, a variety of ongoing initiatives detailed in the table below will continue to be used to help address the problem of work related road casualties.

Initiative	Status	Description
Implementation of work-related road safety strategy	Ongoing	Development of strategy for County Council employees
Driver development course	Ongoing	Work related road safety course offered to local businesses.
Analysis of accident/casualty data	Ongoing	To determine effective work related casualty reduction strategy
Distribution of work-related road safety cd-rom	Planned	Distribution of LARSOA work-related road safety cd-rom to all major employers in the County
Distribution of publicity/ advisory literature	Planned	Development of advisory leaflets with local references for distribution to employers in the County

Table 6.8 Summary of strategy initiatives relating to work related road safety

6.12 MOTORCYCLES

Detailed analysis of motorcycle casualties in Nottinghamshire during the last 10 years has highlighted that casualties mainly fall within two distinct groups of riders - older riders on large engine bikes and younger riders on small engine bikes.

Older riders on sports bikes

Riders of large machines, predominantly ridden by those aged over 30, still account for the majority of motorcycle KSI casualties. Detailed investigation highlights three main causes of accident involving larger machines over 125cc KSI casualties:

- Speed - motorcycles going ahead and losing control on a bend
- Being seen - other vehicles failing to see a motorcycle when making a right hand turn
- Overtaking - motorcycles overtaking and/or filtering past turning vehicles.

Nottinghamshire County Council was a founding member of the Shiny Side Up Partnership which was established in 2001 to address these problems, particularly aimed at sports bike riders. This regional partnership has carried out various innovative publicity and training campaigns (such as events at race meetings and the production of a video featuring John Reynolds) as well as undertaking research to better understand the psyche of sports bike riders. The work of the group was recognised in 2003 when it won the Prince Michael Award for Road Safety.



Younger riders on 'twist and go' scooters

As the popularity of 'twist and go' scooters increases, so has the number of casualties involving riders and passengers of machines equal or less than 125cc, particularly involving younger riders. The smaller capacity machine accidents occur mainly in built up areas. Detailed investigation highlights three main causes of accident involving smaller machines of 125cc or less KSI casualties:

- Being seen - other vehicles failing to see a motorcycle when making a right hand turn
- Overtaking - motorcycles overtaking and/or filtering past turning vehicles
- Inexperience of riders (perception, skills, roadcraft etc.).

Whilst targeting the accidents at source is hard, the majority of injuries suffered could be easily prevented if young riders appreciate the benefit of wearing adequate protective clothing.

The County Council has therefore established, in partnership with the Police and Nottingham City Council, the "Bare Bones" project to attempt to address this problem. The project targets teenage scooter riders and is a hard-hitting campaign aiming to encourage the use of adequate protective clothing and promote safer riding. This project is currently being considered by several authorities in the region.

Summary of strategy initiatives

Whilst analysis of casualty data will determine the future strategy, a variety of ongoing initiatives detailed in the table below will continue to be used to help address the problem of motorcycle road casualties.

Initiative	Status	Description
Analysis of motorcycle accident/casualty data	Ongoing	To determine an effective motorcycle casualty reduction strategy
Surveys/data collection	Ongoing	Regular surveys are carried out to better understand the road safety issues of riders as well as to better understand their psyche and actions.
Study of best practice	Ongoing	Research is undertaken to learn from other authorities and share best practice.
Motorcycle forum	Ongoing	An equal partnership between the County Council, local riders and dealers aiming to make motorcycling in Nottinghamshire safer and more convenient.
Targeted routes	Ongoing	In partnership with the Police, routes where there is a high incidence of motorcycle casualties are identified. Police attending incidents travel along these routes whenever possible to establish a Police presence with the aim that this will affect rider behaviour.
Shiny side up partnership	Ongoing	An award winning casualty reduction partnership consisting of all the regional road safety practitioners (including Police) aimed at addressing the attitudes/behaviour of sports bike riders.
Fatal attraction video	Ongoing	Developed through the shiny side up partnership featuring superbike champion John Reynolds, an updated version of the video has been produced and is used at events or venues where it is felt it may have benefit.
Think Bike! / To Die For signs	Ongoing	Signs erected around the County during the riding season at locations motorcyclists were involved in fatal and serious injury accidents: <ul style="list-style-type: none"> • Think Bike! signs located near junctions aiming to educate drivers to look out for bikes before turning • To Die For signs located before bends aiming to educate riders to consider their speed, visibility, positioning etc before entering the bend
'Bare Bones' campaign	Ongoing	A hard hitting campaign aimed at teenagers to promote the use of adequate protective clothing and safer riding delivered through colleges.
Pre-rider training	Ongoing	As part of casualty reduction activities aimed at teenagers as they start driving/riding to promote the use of protective equipment and safer driver/riding to be delivered through schools and CBT centres.
Motorcycle training	Ongoing	One day advanced motorcycle training/assessment course with advanced instructors.
Website information	Ongoing	Information and advice on safe riding and use of protective equipment as well as links to motorcycle trainers can be found on the County Councils' website.
Engineering measures	Ongoing	When introducing engineering measures, the engineering needs of motorcyclists are pro-actively considered in all schemes and during safety audits carried out on them.

Table 6.9 Summary of ongoing strategy initiatives related to motorcycle road casualties

6.13 PARTNERSHIPS AND CROSS BOUNDARY WORKING

The County Council recognises that it cannot achieve its road safety strategy alone and therefore has long standing partnership arrangements with a range of organisations. Partnership working brings additional insight and resources into all stages of the strategy, from initial policy formulation to the implementation of specific measures. The multi-agency approach adopted by the County Council, on both long-term and short-term projects helps to coordinate and focus efforts thereby maximising improvements in casualty reduction and road safety and travel awareness. This approach has also helped to share best practice and learn from other service providers. Partnerships such as those with neighbouring authorities on publicity or training campaigns are part of the everyday work of the road safety service.

The table below details some of the partnerships that the County Council is involved in to maximise road safety output.

	Key organisations involved
National partnerships	
LARSOA	Local authority road safety service providers
RoSPA	Safety practitioners
DfT LPSA	DfT, Nottinghamshire County Council
CSS	DfT, Highways Agency, local authorities
Regional partnerships	
Accident Reduction Group	DfT, GOEM, LARSOA, East Midlands regional local authorities, Highways Agency
Best Value Group	GOEM, East Midlands regional local authorities
Older Drivers Forum	East Midlands regional local authorities, Driving Standards Agency, elderly person interest groups, Emergency Services, Police, PCTs, Social Services
Shiny Side Up Partnership	East Midlands regional local authorities, Police, Highways Agency
Safety Audit Forum	DfT, GOEM, LARSOA, East Midlands regional local authorities, Highways Agency
School Crossing Patrol Working Group	East Midlands regional local authorities,
Local partnerships	
'Bare Bones' project	Nottinghamshire County Council, Nottingham City Council, Police
County and District Accident Prevention Groups	District Councils, Nottinghamshire County Council, Parish councils, Police, PCTs, Social Services
Driver Improvement Programme	Nottinghamshire County Council, Nottingham City Council, Police
Motorcycle forum	Motorcycle dealers, motorcyclists, motorcycle lobby groups, Nottinghamshire County Council, TRL
Pedestrian Safety Partnership	Nottinghamshire County Council, Nottingham City Council, Police
Planning for new school buildings	Architects, Education Department, External contractors, Highway Engineers, Road Safety Team
Safety Camera Partnership	Nottinghamshire County Council, Nottingham City Council, Police, Highways Agency, Magistrates
Road Safety Forum to determine policy/strategy/performance	GOEM, district councils, Driving Standards Agency, Emergency Services, Education Department, Highways Agency, neighbouring local authorities, Nottinghamshire County Council road safety service providers and highway engineers, Police, PCTs
School Travel Joint Working Group	Education Department, Elected Members, public transport, road safety service providers, school head teachers
School Travel Plan steering groups	Local residents, Nottinghamshire County Council representatives, parents, Parish Councils, pupils, school governors, teachers

Table 6.10 Examples of road safety partnerships

The Council works with neighbouring authorities on cross boundary issues on all aspects of roads safety service delivery. As detailed earlier, the Council is part of several partnerships delivering road safety education, training and publicity programmes such as the Shiny Side Up partnership and Older Driver Forum.

The Council also works on specific education, training and publicity on cross boundary issues with neighbouring authorities. For example, joint advertising and publicity of specific road safety messages on corridors that cross administrative boundaries have been undertaken recently (such as a Christmas Drink/Drive campaign with Derbyshire and Leicestershire County Councils and a summer Drink/Drive campaign which is being developed based on an idea from Derbyshire County Council).

Engineering measures are also developed jointly with neighbouring authorities. Speed limits on roads that cross administrative boundaries have been reduced to ensure consistency (for example, on A619 at the Nottinghamshire/Derbyshire boundary). Similarly, local safety schemes have been developed jointly with neighbouring authorities to address problems that occur on bends on rural roads that cross administrative boundaries (for example, on A6006 at the Nottinghamshire/Leicestershire boundary).

Cross boundary co-operation is supported through the Network Management Duty as part of reducing congestion and effective co-ordination of road works whilst ensuring that road safety is of prime importance at all times.