

**Herefordshire Council
Environment Directorate**

**Highway Network Management Plan
2008 to 2017**

**Michael Hainge
Director of Environment
Brockington, Hafod Road, Hereford**

Table of Contents

1 Executive Summary

2 Introduction

3 Scope

4 Vision

5 Background

6 Partners

7 Objectives

7.1 Network Operation

7.2 Development Control

7.3 Herefordshire Intelligent Transport System

7.4 Passenger Transport

8 Organisation and Resource Management

9 Communications

10 Action Plan

11 Performance Indicators and Targets

12 Review

Appendices:

Appendix A Transport Strategy background and current Progress

Appendix B Action Plan

Appendix C Regional Framework

Appendix D Summary of the national framework “Intelligent Transport Systems (ITS) – The policy framework for the roads sector” published by Department for Transport November 2005.

Appendix E Contribution ITS can make to the Network Management Plan

Appendix F Not used.

Appendix G Contact Details

Appendix H Herefordshire Congestion Assessment

1 Executive summary

The Highway Network Management Plan forms the basis for operation and development of the highway network to deliver the Local Transport Plan network management targets. The overall aim is to:

- Achieve an easy to use, consistent and functional road network which links well with its neighbours.
- Facilitate the efficient and safe movement of people and goods whilst protecting the quality of life within communities.

Congestion is frequently cited by the public and local businesses as a serious problem. There appears to be an impression that travel on the Herefordshire network, particularly in Hereford is unpredictable. Indeed there is evidence that drivers are taking long diversions to cross the river Wye using bridges to the east and west of the city. The development of more sustainable transport modes is also constrained by the lack of capacity in the network, highlighting the need for innovative solutions that can be accommodated within the existing road space.

An assessment of the causes of congestion and potential for improvement indicates that the priorities for intervention are increased capacity to move people and goods along the A road network and improved traffic control and emergency response in relation to accidents and other incidents on these roads. A slightly lower priority but still worthy of improvement is the traffic control and response to incidents on B roads and the management of known periods of higher than normal traffic flow. There is some scope for local road improvements but the main focus for the network management plan will be prevention of delays through development control, streetworks management and intervention through traffic control strategies and emergency response.

Herefordshire Council is acutely aware of the importance of managing the road network with its partners and other agencies to minimise disruption and reduce congestion. To facilitate this, a Network Management Team has been established and a Highways Network Manager appointed to directly support the Traffic Manager.

There are already the seeds of a strong congestion busting culture internally which will be developed and expanded to cover partners, key stakeholders and eventually the wider community. Once improvements start to take effect more information will be made available about current conditions and a communication plan implemented to gain public confidence about the reliability of the journey times on the main roads.

2 Introduction

Safe and efficient movement of people and goods is an essential element in the delivery of Herefordshire Council's corporate objectives. Major road improvements require huge investment and are regarded by many as an unsustainable approach. New road schemes will be pursued where it can be demonstrated that they will provide significant benefits. However the main aim will be to make best use of the existing highway network. There is scope to achieve more capacity through better control of the network and through initiatives to change peoples travel behaviour.

The purpose of this document is to translate the transport strategy statements in the LTP2 into actions that will contribute to achieving the overall aim which is to:

- **Achieve an easy to use, consistent and functional road network which links well with its neighbours.**
- **Facilitate the efficient and safe movement of people and goods whilst protecting the quality of life within communities.**

The network management plan will set out a 10 year vision with a 4 year delivery programme to tie in with the LTP period to 2011.

The plan includes a review of the activities, procedures and organisation. Its purpose is to ensure compliance with the network management duty of the Traffic Management Act 2004 and link with the regional framework developed by the West Midlands Shire and Unitary Authorities Traffic Managers Group.

3 Scope

This document sets out the network management plan to 2017 and the action plan to 2011 to coincide with Local Transport Plan 2. It provides the foundation for improved traffic and street works management and the exploitation of new technology to deliver the targets.

Transport is not an end in itself but is one of a range of factors that can help to maintain and improve the quality of life for local people and help them access key services, leisure and recreation opportunities. Herefordshire Council has developed a transport strategy in partnership with local stakeholders that helps address wider local priorities and establishes a clear vision for; delivering accessibility, tackling congestion, safer roads and better air quality. The network management plan is primarily focused on tackling congestion and compliance with the network management duty. It will of course support delivery of the other three shared priorities.

This plan does not cover the maintenance requirements to keep the network in a good state of repair. Herefordshire Council's current approach to maintenance is set out in its Highway Maintenance Plan, and the Council's longer term approach to maintaining and improving its highway assets is being developed through transport asset management planning.

4 Vision

Our vision is:

A sustainable and integrated transport system which recognises the distinctive characteristics of Herefordshire's rural and urban areas and provides for the transport needs of residents, visitors and the business community.

Our aim is that Herefordshire will continue to improve and remain a high performing authority, exercising control over the local transport infrastructure to support the delivery of local and national objectives.

5 Background

The corporate plan sets out what the council intend to do to play a full part in realising the strategic partnership's ambitions contained in the Community Strategy. It covers the period 2005 to 2008 and includes a wide range of service targets which will help focus the work of the Council in achieving these goals. The corporate plan recognises the importance of transport and includes it amongst its top priorities:

- to improve transport and the safety of roads, including further reductions in the numbers of people killed or seriously injured.

The Traffic Management Act 2004 placed a new network management duty on the council, as local traffic authority, in particular section 16(1) states:

'It is the duty of a local traffic authority to manage their road network with a view to achieving, so far as is reasonably practicable having regard to their other obligations, policies and objectives, the following objectives:-

- a) Securing the expeditious movement of traffic on the authority's road network; and***
- b) Facilitating the expeditious movement of traffic on road networks for which another authority is the traffic authority.'***

Herefordshire Council is acutely aware of the importance of managing the road network to minimise disruption and reduce congestion.

A summary of the current elements of the transport strategy related to network management is contained in Appendix A.

6 Partners

For the management and operation of the highway network the Council works in partnership with:

- The Amey Group and in particular Amey Wye Valley Ltd - carry out maintenance and improvement works on the highway within the strategic service delivery partnership (SSDP).
- Owen Williams Consultants (part of the Amey Group) – provider of technical consultancy support within the SSDP.
- Traffic Signals UK – maintenance and improvement of traffic signals.
- The Police – incident management, enforcement of road traffic law, crime prevention and emergency planning.
- The Fire and Rescue Authority – incident response and emergency planning.
- The Highways Agency and their Agents AmeyMouchel– Traffic authority for the trunk road and motorway network (M50, A40(T), A465(T), A449(T) and A49(T)).
- Neighbouring authorities – surrounding traffic authorities; Shropshire, Worcestershire, Gloucestershire, Monmouthshire and Powys County Councils.
- Parish Council's.
- User Groups.
- The Statutory Undertakers.

Key contact details for the Council and its partners are contained in Appendix G

The network management plan will be discussed with each partner to secure their commitment and support for deliver of the actions that will achieve the targets. A summary of their supporting statements will be added as an appendix to the plan in due course.

Map 8A: Principle Road Network In Herefordshire



7 Objectives

7.1 Network Operation

The network management plan forms the basis for operation of the network and how it should be developed. The overall aim is to:

- **Achieve an easy to use, consistent and functional road network which links well with its neighbours.**
- **Facilitate the efficient and safe movement of people and goods whilst protecting the quality of life within communities.**

The Council will continue to implement innovative, value for money solutions that get more out of the existing transport network without compromising road safety. These solutions include stepping up our behavioural change initiatives to reduce traffic volumes, improving the attractiveness of commercially operated public transport services through partnership with bus operators, developing park and ride, improving walking and cycling facilities, targeted demand management through parking control and replacement and upgrading of the current urban traffic control system to provide route guidance and journey time information.

There is a need to minimise the impact of road freight, while ensuring the needs of local businesses are met. Heavy goods vehicles will be encouraged to use the most appropriate access route to reach their destination. Such routes will be adequately signed and maintained, consequently reducing congestion and maintenance costs, improving air quality, accessibility and safety.

Although the proportion of the road network that is susceptible to routine congestion is relatively small, there are several key locations where incidents can lead to substantial delays and disruption. Peak hour congestion is common in Hereford City, and to a lesser extent, at Bargates in Leominster. These areas coincide with the two air quality action areas of the county.

There are few route choices in the central area and south of Hereford due to only one main road crossing of the River Wye. There are appropriate route choices to the north of Hereford both in an east/west and north south direction. There is some scope for local road improvements but the main focus for the network management plan will be prevention of delays through development control, street works management and intervention through traffic control and emergency response.

We will:

- Build and retain the existing strong culture throughout the highways and transportation service and centrally, within the network management team, to minimise delays at street works and seek to extend this culture to all staff within the strategic service delivery partnership (SSDP).

- Extend street works management practices to include the authority's own work and works undertaken by developers.
- Continue to operate effective parking regulation and control, regularly reviewing our policies and procedures to ensure that they support the delivery of the network management duty.
- Work to ensure that all regulatory features, such as double yellow lines and other such parking restrictions are maintained to a standard that enables their enforcement.
- Review the awareness of works programmes and congestion implications within the SSDP.
- Strengthen the partnership with the Highways Agency and establish shared objectives for street works management to ensure consistent standards between the authorities.
- Create a network management hierarchy through the identification of priority routes for each different modes of travel.
- Develop a high quality cycle and walking route network with priority given to Hereford and the market towns and links to surrounding settlements which generate commuting journeys.
- Integrate cycling with public transport to facilitate cycle use as part of longer journeys.
- Work with all stakeholders, through the mechanism of Freight Quality Partnerships, and discourage the use of unsuitable rural roads and residential routes by heavy goods vehicles.
- Communicate the requirements of the Traffic Management Act throughout the authority and the SSDP and promote the way in which wider services could be delivered differently to support compliance with the network management duty.

7.2 Development Control

There is likely to be significant new development within the next 10 years. As a result of previous development and the associated growth in traffic, delays have increased significantly along corridors to the south east and north of Hereford. The aim will be to produce clear objectives so that the performance of the network can be protected through private sector investment in transport solutions.

Key development including the Edgar Street Grid area, in the centre of Hereford, will be covered by the supplementary planning document (SPD). The Edgar Street Grid project is an initiative seeking to promote, through a partnership with Advantage West Midlands and private developers, a comprehensive regeneration of an area to the north of the city centre and adjacent to the A49(T). It is anticipated that such initiatives will present opportunities for developer contributions to network capacity improvements, park and ride, bus priority and offer better penetration of bus services into a re-defined central area.

Journey times must be protected along the priority routes for all modes of travel. Therefore a stronger challenge of development proposals will be essential linked to the authority's network management performance targets.

We will:

- Make full use traffic impact assessment modelling to identify the need for transport improvements.
- Encourage developments within the County that provide appropriate facilities for heavy goods vehicles, such as lorry parking facilities with full amenities.
- Where able encourage development in locations with good road access. If appropriate developers may be required to contribute financially towards improving access roads and transport facilities to protect journey time reliability.
- Ensure that development does not sever routes used by cyclists or pedestrians or prejudice accessibility by walking or cycling and to require developers to provide through routes across sites where these will deliver improvements to the cycle network.

7.3 Hereford Intelligent Transport System

One of the key challenges in tackling Hereford's congestion problem is getting greater efficiency out of a network which is already operating at and beyond its capacity, particularly during peak periods. During these periods relatively small incidents at critical locations can have significant impacts on the whole network. Intelligent Transport Systems (ITS) can contribute significantly to the reduction of these problems by increasing the effective capacity of the network, improving efficiency of public transport, monitoring road conditions to detect incidents when they occur and proactively managing demand and controlling traffic flow. A summary of the contribution ITS can make to delivering the network management plan is contained in Appendix E.

The level of congestion within Hereford does have some adverse impact on the potential for economic expansion, with new development constrained by the ability of the network to cope with additional traffic generation. Congestion is cited by the public and local businesses as a serious problem in Hereford City. The development of more sustainable transport modes is also constrained by the lack of capacity in the network, highlighting the need for innovative solutions that can be accommodated within the existing road space.

In addition to enabling bus priority an ITS can incorporate and share data between a number of applications such as; urban traffic control (UTC) which control traffic signals, real time information on public transport, road conditions

and Closed Circuit Television (CCTV) to improve overall management of the network. A summary of the Department for Transport (DfT) framework for ITS is contained in Appendix D. National guidance indicates that ITS can achieve reductions in traffic delays of 10- 40%, 30% reductions in time taken to find parking spaces and 20-30% reductions in delays to public transport.

We see the development of the Hereford ITS as forming a core component of our strategy to tackle congestion and improve air quality in Hereford and regard ITS as providing us with the key tools required to comply with the network management duty. We also feel that Hereford ITS fits with the objectives set out for the development of the Edgar Street Grid, which include the management of access by car and improvement in quality and convenience of alternative modes of transport to the car.

We have reviewed our system that controls traffic signals (SCOOT) and have upgraded it so that it is fully compatible with other ITS systems. This is already showing benefits and has produced a more robust system to better managed traffic flows. We will undertake a detailed assessment with a view to developing a system that will provide:

- Urban traffic control
- Bus priority
- Traffic and traveller information
- Car park guidance

However, we will not be able to deliver Hereford ITS on our own. The system must be compatible with the needs of several partner organisations including the Highways Agency, bus operators and the emergency services and it must also help deliver the objectives for the development of the Edgar Street Grid area.. We will ensure that the proposal takes full account of the operational management of the whole city transport network which includes local and trunk roads.

We will:

- Seek to Implement and fully utilise an Intelligent Transport System for Herefordshire that enables us to manage the network, detect problems, intervene when necessary, provide travel advice and report on performance.
- Give priority to signal maintenance and traffic flow on the key routes identified in the LTP for journey time reliability.
- Make full use of existing and future network performance data to inform road users and hence reduce unnecessary delays
- Ensure funding for future operating costs, power supply and communications is known and secured when new systems are purchased.
- Prepare a lifecycle management plan, as part of our Transport Asset Management Plan, for all ITS and traffic signal equipment including a

planned replacement programme assuming a maximum life expectancy of twenty years and a typical life expectancy of six years for IT and electrical components of the asset.

- Improve communication links with the travelling public through local radio and with neighbouring authorities.
- In the longer term, review how demand management mechanisms could be delivered in tandem with proposals for the Hereford ITS.

7.4 Passenger Transport

The council will establish a punctuality improvement partnership (PIP) with bus operators with a view to monitoring and improving performance. The function of the PIP will be to monitor the punctuality of services, identify the causes of delay and, in partnership with operators, seek to implement measures to improve performance.

The PIP will adopt the traffic commissioners' standard definition of punctuality as being 'no more than 1 minute early and no more than 5 minutes late'. Work will be undertaken in the first year to agree the methodology and establish a baseline of current performance. Methodology will be agreed between the signatories to the PIP and is likely to take the form of one, or more, of the following methods:

- Reports derived from GPS positioning data in ETM (bus ticket machine) systems;
- Continuous monitoring programme at terminals; and
- Structured programme of spot-checks throughout the area.

Ultimately the data collection will be an integrated part of the Herefordshire ITS.

The PIP will include a statement outlining the percentage of services to be monitored, the proportion of observations to be recorded at terminals and timing points en-route. It will then set a single, area-wide target for improvement against the baseline. The network management plan will compliment and where appropriate give priority to achieving the punctuality targets.

The Council and the Highways Agency have assessed the feasibility of providing bus lanes into the city centre. These studies have looked at routes on the A49(T) Edgar Street and the A438 Eign Street. Unfortunately, the studies have indicated the provision of bus lanes on these routes is not achievable in terms of reduced traffic capacity, public acceptability and in the case of Eign Street due to the need to acquire additional land outside of the highway corridor. As both routes were initially identified on the basis of their contribution to improving attractiveness of the bus network and their deliverability we have had to reconsider the merit of undertaking further feasibility studies of bus lanes given the cost involved and the findings of these studies. Consequently, we believe that it will be more realistic to

achieve bus priority through providing priority through signals rather than through road space re-allocation and hence this will be a key element of our assessment of the Hereford ITS.

We will:

- Facilitate a greater understanding and ownership of shared objectives between council and bus operators.
- Explore the potential for infrastructure investment to provide bus priority, interchange improvements, real time information and automatic data collection.
- Encourage bus operators to invest more in new vehicles, routes and improved service frequency.

8 Organisation and Resource Management

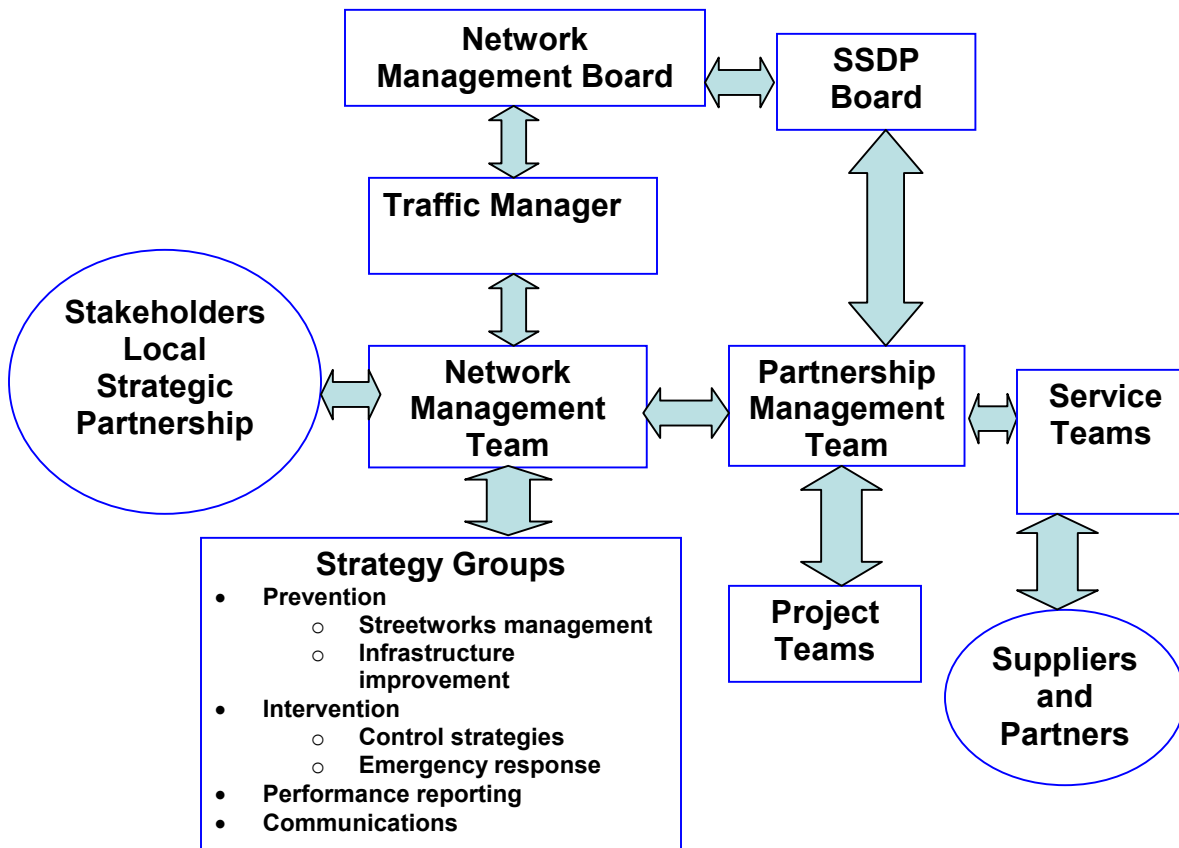
The network management duty requires an authority to appoint a traffic manager and the network management guidance suggests that the traffic manager should set up a core team. Herefordshire has appointed the Head of the Highways & Transportation Service as the Traffic Manager. The traffic manager will provide leadership for implementation of the network management plan and assume responsibility for compliance with the network management duty.

The network management team will be the focal point for engagement with key stakeholders. The traffic manager through the network management team will coordinate network management and direct activity to deliver the plan. The network management team will be headed by the Highways Network Manager who will act as a champion for compliance with the duty. The potential to share this role with neighbouring authorities will be explored.

Compliance with the network management duty will require strong and effective partnerships with the Highways Agency, Police and other emergency services. In order to secure shared ownership of the objectives and targets, a network management board will be established. It will take an overview of performance and any resource issues and risks. The board will meet twice a year to receive performance and strategic issue reports from the traffic manager. It is proposed that the board will include:

- The Cabinet Member for Highways and Transportation
- Director of Environment
- Highways Agency, Divisional Director
- West Mercia Police, Divisional Commander
- Member of the West Mercia Police Authority
- Hereford and Worcester Fire and Rescue Service, Senior Officer
- Member of the Hereford and Worcester Fire and Rescue Authority
- Senior Officer from West Midlands Ambulance Service

- Traffic Manager



The highway network manager will review resource requirements and where necessary manage change in order to deliver the objectives and targets in the most efficient and effective way. Some initial resource priorities to be considered are:

- To ensure that the Council's works programme is developed to the desired quality and then delivered to agreed timescales, that support the objectives of this plan.
- To ensure that the resources are clearly identified as part of the network management team to effectively coordinate the delivery of Winter Service and other emergency response functions, as supplied through the wider Highways & Transportation Service.
- To review winter service and emergency response activities in advance of each winter season to ensure that they fully support the delivery of the network management duty.
- To assist in the development of a stronger service delivery partnership which utilises the individual strengths, provides strong leadership and innovation to achieve shared network management objectives.

- To promote the integration of regulatory, improvement and maintenance activities to support the ongoing achievement of these shared network management objectives.
- To develop proposals for more efficient use of energy and reduced communication costs to offset the potential increase in the size of the traffic control system asset and its subsequent maintenance costs.
- To undertake a review of the need for existing traffic control systems and create a database of geographically reference asset data together with an assessment of residual life.
- Develop proposals as part of a lifecycle plan within the Transport Asset Management Plan for a planned replacement programme of traffic signals and other traffic control systems, which can be considered for inclusion in the capital programme.
- To deliver a service that strives to meet customer expectation and develop the means of regularly monitoring customer satisfaction.
- Creation of a continuous improvement culture with a drive to deliver more for less.
- Review the SSDP contract performance incentives with a view towards a increased focus on network management outcomes such as journey time reliability.

9 Communications

The communication strategy is divided between service management and travel information. Internally the highway network manager will develop and implement a programme to ensure the whole authority including its suppliers is aware of the traffic management act and its implications. Each service group will be encouraged to examine what part it can play in reducing congestion. This could for example range from more flexible working hours or location to minimising the miles travelled by suppliers. The level of awareness will be monitored through the process of annual performance / staff review and development appraisals.

Externally the authority will complete and sign a local operating agreement with the national traffic control centre and highways agency regional control centres which will include the exchange of relevant information. There will continue to be quarterly meeting with the highways agency to discuss service issues at a strategic and tactical level.

There will continue to be monthly SSDP coordination meetings on an area basis and quarterly local coordination meeting with the utilities. Herefordshire Council will fully participate in the regional HAUC. The present weekly exchange of a schedule of all planned works will continue between the Highways Agency, Police and other emergency services and all neighbouring authorities (Shropshire, Worcestershire, Gloucestershire, Monmouthshire and Powys). All highways and transportation service managers, the local media, travel

information centres and bus companies also receive the same notification of works.

A list of key contacts is contained in Appendix G.

Although there is regular liaison with the West Mercia Police one of the future priorities is to develop stronger links at a strategic level and a greater sense of partnership for network management.

The council will continue to play a strong role in regional network management through participation in the West Midlands (Shire and Unitary) Traffic Managers Group, which ensures an exchange of strategic best practice and explores the benefits to be gained from regional research and service delivery proposals. The authority is also represented on the West Midlands Traffic Officers Group which explores best practice at a tactical level.

As far as road users are concerned the authority will publish information to explain how the network is managed and promote the relevant contact numbers to report traffic flow problems. As part of the Herefordshire ITS travel information signs will be provided at bus stops displaying real time departures and service updates and at key locations on priority traffic routes to display warnings and advice on alternative routes. Once more live information is available about performance of the network, closer links with the media will be developed. Where possible all relevant information will be available on the council's website.

10 Action Plan

This section forms the Herefordshire Network Management Action Plan to 2011. The individual actions are detailed in Appendix B. Appendix C summarises the actions in the format of the regional network management plan framework developed by the west midlands shire and unitary authorities traffic managers group.

There is some scope for local road improvements and integrated transport schemes will be implemented where appropriate to increase the capacity for the movement of people and goods. However the main focus for the network management plan will be reduced congestion through development control, street works management and intervention through reactive control and emergency response. Traffic control strategies will be prepared which identify the actions and diversions for specific links in the network and the conditions that will trigger intervention. Priority will be given to improvements in traffic flow on key traffic routes which contribute to the journey time reliability targets in LTP2.

There appears to be an impression that travel on the Herefordshire network, particularly in Hereford is unpredictable. People frequently ask "What is the traffic like?" when travelling to or from the city. Indeed there is evidence that drivers are

taking long diversions to cross the river Wye using bridges to the east and west of the city. The roads leading to the bridge to the west are suffering overuse and extensive verge erosion. Once improvements start to take effect more information will be made available about current conditions and a communication plan implemented to gain public confidence about the reliability of the journey times on the main roads.

Where appropriate use will be made of the existing transportation model for Hereford to assess the impact of new development and impact of planned improvements including new traffic control strategies to manage incidents and planned events such as football matches.

The Council has good procedures and protocols for coordinating streetworks and an excellent relationship with utilities. It has systems for the coordination and management of all works on the highway. All highways and transportation teams play a key role in managing and improving the network. Regular inspections are undertaken to control the quality of all street works including those undertaken by for the Council itself.

The requirements of the traffic management act and the Herefordshire approach to compliance with the network management duty will be communicated throughout the authority, the strategic service delivery partnership, key stakeholders and the community.

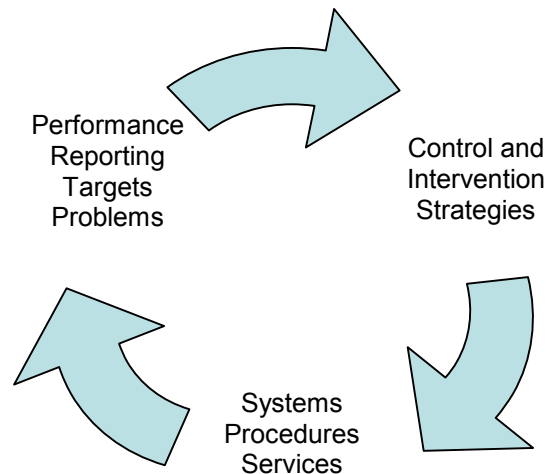
Herefordshire Council will continue to consider the potential for the introduction of a street works permit scheme. The authority receives about 8000 street works notices which result in about 5000 pieces of work for inspection. These figures will double with the inclusion of in-house works. However, the number of notices on type 1 and 2 roads is relatively small and Section 74 (overrunning of works) has been successfully applied and enforced in Herefordshire. Given this and the authority's good relationship with utilities, the current view is that it is unlikely that large benefits will be gained from the initial introduction of a permit scheme. The funding of any such a scheme in the future will have to be carefully assessed in light of the proposed charges and the restrictions on income use in the regulations. It should be noted that there is a regional proposal which is being developed by the traffic managers group for a permit scheme covering type 1 and type 2 roads. The viability and potential benefits from this joint scheme will be a matter for ongoing consideration.

Presently travel information is provided through local radio stations and the local media. The authority intends to establish itself as the primary provider of accurate and timely travel information. Some simple and relatively low cost sources of information will include; use of SCOOT loops to spot slower than normal flow, enhancements to the council's CCTV system which is currently used purely as a crime reduction tool and the purchase of a system such as Traffic Master or ITIS live travel time data.

At the moment it is difficult to tell how much of an influence problems on the M50 and M5 and M54 have on traffic flow through Herefordshire. From experience elsewhere it is likely to be significant within approximately 30 miles of the motorway. A link to view the highways agency cameras on these roads will be explored using web based services.

Diversion routes for incidents on priority traffic routes will be identified, documented and agreed with Highways Agency where necessary. Some emergency response protocols and procedures have been developed and fully documented jointly with Highways Agency, Police and other emergency services, this best practice will be expanded upon. The emergency call out times will be reviewed for priority routes and the potential for a rapid response team for incidents on the A49 will be discussed with the Highways Agency. A fast response to accidents, breakdowns or other obstructions on the A49 through the city is one of the top priorities given the absence of local alternative routes to cross the river Wye.

The enforcement of waiting restrictions will be aligned to the performance targets and the authority will consider the feasibility of taking on the enforcement of moving traffic offences. Full control of the network will eventually be gained from the proposed Hereford ITS. The feasibility, specification and procurement strategy will be developed alongside the intended traffic control and information strategies. The systems will be designed to deliver the control strategies to meet the targets and measure performance.



The set up costs for Hereford ITS and its subsequent maintenance will be expensive and therefore, subject to the outcome of the detailed assessment and cost estimate, we anticipate that we may need to make a bid for exceptional scheme funding. DfT guidance indicates that authorities may submit exceptional scheme bids through annual progress reports for demonstration or pilot projects which:

- Cost less than £5M;
- Meet a local transport need; and
- Provide the best value for money solution to meet that need.

As a Centre of Excellence for Local Transport Delivery, we believe Hereford ITS would provide an exciting demonstration project of how technological solutions delivered through local partnership can help tackle congestion problems in

smaller historic urban settlements. We will also assess how Hereford ITS could help support demand management proposals in line with governments aims for the transport innovation fund and will consider whether a bid for this funding would be appropriate. We will take into account best practice emerging from the TIF pilot projects and the road pricing local liaison group as part of our assessment.

While we anticipate the need to make an exceptional scheme bid we also intend to explore other funding options:

- Developer contributions and contributions from strategic partners as part of the Edgar Street Grid proposal.
- A spend to save initiative whereby early investment would enable lower future delivery costs and an improved quality of service.
- A local public service agreement linked to stretched targets for journey time reliability. Meeting the targets would lead to a reward payment which would almost certainly be greater than the investment required to achieve them.
- Partnership funding from other authorities such as the police authority who would be able to benefit from improved incident management and automatic number plate recognition data for crime detection.

We will also explore the potential benefits from alternative procurement strategies.

11 Performance Indicators and Targets

Performance will be measured based on the indicator and targets contained in the LTP and NI 167 Congestion – average journey time per mile during the morning peak.

That said the main focus for the network management plan will be on journey time reliability measured as a % increase in delay. The main congestion is in Hereford and the LTP local performance indicator HLI1 is derived from annual journey time surveys along selected key traffic routes across the city. Given the low proportion of through traffic and the primary objective to improve access to and from the city we will consider translating each cross city journey into two radial journeys (to and from the city centre).

Annual surveys are likely to be very susceptible to random fluctuations in network performance. A more regular and robust supply of data will be required to provide an accurate assessment of performance particularly given the need to satisfy the reporting requirements of the network management duty. The ITS will be

designed to facilitate the integration of floating vehicle data or roadside monitoring to measure journey times more accurately.

12 Review

The action plan will be subject to quarterly updates which will be considered by the Highways and Transportation Senior Management Team and presented to the Network Management Board.

An annual progress report on the delivery of the plan will be produced that will contribute to the council's annual progress report on the LTP2.

In addition, the network management plan will be subjected to a full three year review to allow for refocusing on any new service priorities, innovations and market demands.