

8. TRANSPORT ASSET MANAGEMENT

8.1 Introduction

The Council has always acknowledged the highway is a valuable asset, in both delivering a vital service to its customers, and enabling many other services and activities that are essential to the community and a vibrant Herefordshire. Herefordshire's communities rely on a well-managed and maintained transport network that supports the vital economic and social needs of the County. In particular, the highways have a key role to play in supporting local priorities and form a significant component of the public realm. Effective management of the County's transport infrastructure also has a valuable role in promoting public health and safety.

Our LTP2 objective is:

To manage transport assets in the most cost-effective way through robust condition monitoring, timeliness of intervention and economies of scale in repairs and renewal.

Map 8A: Principle Road Network in Herefordshire



Herefordshire has 3233 km of publicly maintained highways, 714 bridges and approximately 13000 streetlights, illuminated bollards and signs. The highway network is by far the single most valuable asset in the control of the Council, with an estimated replacement value of at least £2 billion. The extent and hence value of this asset is expanding constantly, through both new development and improvements to the existing infrastructure. When taken in this context the 0.4% of its value that the Council has been able to invest in its annual maintenance represents excellent value for money. The Principal Road Network is illustrated on Map 8A.

8.2 Transport Asset Management Plan (TAMP)

The Council has recognised the benefits that will ensue from adopting a comprehensive and structured approach to highway asset management in the same way that it is applied to many other public assets.

Local Transport Plan 2 introduces the concept of Transport Asset Management, and the development of a TAMP, which is 'a strategic approach that identifies the optimal allocation of resources for the management, operation, preservation and enhancement of the highway infrastructure to meet the needs of current and future customers'. The scope of assets covered includes all 'fence to fence' highway assets such as roads, footways, bridges, retaining walls, street lighting, signs, drains, road markings, traffic signals and pedestrian crossings, street furniture, cycleways, verges and all assets related to public transport such as bus stops and shelters.

Keeping these local transport assets in good order is not only important for minimising long term costs but also because they contribute significantly to the delivery of other objectives. This can help to encourage more walking and cycling, improve road safety and promote the quality and comfort of bus journeys. A clear link is established between well-managed and maintained local transport assets and other LTP2 targets such as road safety and public transport.

A well-managed network is also recognised as a vital component of the Council's contribution to the shared priorities:

- ◆ Congestion will be tackled by minimising disruption during works;
- ◆ Safety can be improved by 'designing in' safety measures to routine maintenance schemes, supporting our casualty reduction targets;
- ◆ Accessibility will be supported through the enhancement of more sustainable travel modes and by providing greater reliability for local transport services; and
- ◆ Reduced disruption during road works will contribute to better air quality.



We will continue to update and improve the transport asset

The development of the TAMP is therefore helping to influence and steer the direction of funding for maintenance in LTP2, as illustrated in Table 8A.

The TAMP is being developed to meet the future transport challenges and is being informed by existing Council policy documents such as the Highway Maintenance Plan and Network Management Plan. The Plan will develop the existing targets and the analysis of how we can improve the condition of our different assets if available finance is spent to best effect. It is recognised that, against the background of above-inflation price rises in this sector, the new targets will be challenging and require sophisticated planning and a continued search for 'Gershon' efficiencies. However, through our continued improvements in works programming and the analysis going into the preparation of our TAMP, we believe these are achievable.

8.3 Highway Maintenance Plan

Our approach to the effective maintenance of the Highway Asset is set out in the Council's Highway Maintenance Plan, which is available online at www.herefordshire.gov.uk. The Highway Maintenance Plan is based on the National Code of Practice for Highway Maintenance Management. The Council's policy is built around three core elements of:

- ◆ Safety;
- ◆ Serviceability; and
- ◆ Sustainability.

continued on page 98

8. TRANSPORT ASSET MANAGEMENT

Table 8A - How the TAMP Influences LTP2

TAMP Development	Outcomes	LTP2 Contribution	Examples
Highway Maintenance Plan and Life Cycle Planning	<ul style="list-style-type: none"> Well managed and maintained network More holistic view of the network which will be further expanded Timeliness of maintenance interventions Focus on customers Defined Service Levels and Performance Targets Performance Management Risk Management 	<ul style="list-style-type: none"> Reduced congestion, improved accessibility and safer roads - by better maintenance planning and combined schemes e.g. maintenance schemes also delivering safety improvements: all maintenance works being undertaken on the highway at the same time Improved air quality by reduced congestion Improved walking and cycle use Improved public transport routes Better access 	<ul style="list-style-type: none"> Joint safety and maintenance schemes have been delivered on the A4103 at Fromes Hill and at its Junction with the A417 Newtown Crossroads, the A44 at Bringsty, the A438 at Lugwardine and on the B4224 In Hereford the resurfacing of the A438 Commercial Road has included for public transport, pedestrian and cycle improvements and traffic management improvements. The scheme is being delivered off peak
Procurement Strategy	<ul style="list-style-type: none"> Existing partnering arrangements leading to improved service levels and presenting opportunities to further develop into 'outcome' specifications and performance standards Improved efficiency leading to better VFM Long term commercial approach of partners aligned to asset management decisions 	<ul style="list-style-type: none"> Approach and philosophy giving ability to review current spend, and moving towards longer-term programming and the potential for different spend profiles and targets Ability to achieve 'year on year' Gershon efficiency savings Assessment of sustainability of cost savings across assets 	<ul style="list-style-type: none"> The Joined Up Programme continues to be developed involving all partners. This encompasses all Highway and Transportation projects, maximising the opportunities for integration and delivery efficiencies The partnership is moving its specifications to an outcome basis, with individual elements of routine maintenance increasingly being measured on outputs Year on year cost efficiency rebates coupled with gains share mechanisms are delivering savings
Scheme Planning	<ul style="list-style-type: none"> 'Total package' concept Lifecycle planning to be developed across all asset areas to help with scheme proposals Long-term programmes to be further developed Change management Broader treatment options, including recycling and reuse 	<ul style="list-style-type: none"> Reduced congestion - integration of scheme proposals across all asset groups Improved air quality by reduced congestion Network, hierarchy and performance targets directly linked to prioritisation of schemes Ongoing maintenance requirements of LTP infrastructure projects considered as part of future programming Safeguarding the environment 	<ul style="list-style-type: none"> The Joined Up Programme is enabling longer term planning of delivery across all elements of the highway asset. This is enabling partners to consider investment in treatments involving recycling and reuse Carriageway maintenance programmes have been developed using an economic prioritisation approach, rather than worst first. This has maximised our impact on road condition, particularly on the non-principal network (BVPI 97 a and b 14% to 10% over the first LPSA period) Workshops to develop lifecycle planning are underway both within the service and jointly with other Authorities through the Midland Service Improvement Group All schemes undergo a site-specific environmental impact assessment. Our Good Environmental Management (GEM) system is ISO14001 certified
Stakeholder Involvement	<ul style="list-style-type: none"> Existing customer surveys will be further developed to produce refined Service Levels User and operator forum inform and develop priorities in the long-term programme 	<ul style="list-style-type: none"> Development of travel mode choices Link to investment decisions and review of sustainability of maintenance spending Increased use of sustainable modes of travel Improved access to jobs and services 	<ul style="list-style-type: none"> The Pedestrian Access and Cycle forum have joined together to better integrate the needs of these vulnerable users into our strategies for service delivery Community Travel Plans are delivering novel solutions to transport issues that promote modal shift, such as in St James and Bartonsham Early involvement of Residents Groups and Parish Councils has led to the delivery of Traffic Calming designs that have the support of the community, such as at the site for the new Whitecross High School Consultation on city centre pedestrianisation in Widemarsh Street has extended to every household in the County Workshops are underway bringing together stakeholders and users of high profile areas such as the city centre A Citizens Panel is used to inform service standards
Data, Systems and Business Processes	<ul style="list-style-type: none"> Improved data, systems and processes Rationalisation of existing data to meet both accounting and business process requirements Well informed business decisions 	<ul style="list-style-type: none"> Achievement of LTP shared priorities by optimising the whole highway asset and aligning with customer expectations 	<ul style="list-style-type: none"> Performance management is embedded in the Directorate, this was recognised in the recent CPA assessment UKPMS outputs directly inform programme development Work is underway on an Asset Information Strategy to assist in assessing Inventory data needs, confidence and deficiencies. This will inform our future data collection and management processes so they meet our business needs Asset Valuation is underway We benchmark our performance nationally and regionally. The use of a generic asset management plan, developed jointly through the MSIG as our base will give this comparison greater meaning We validate the findings of these business processes by speaking to customers and stakeholders
Cultural change	<ul style="list-style-type: none"> A focus on the customer Long-term view considered alongside the short term impacts Removal of internal 'silos', with the result of a total asset view Ownership of the whole asset, through Area Based Structure 'Total package' concept embedded in the Service Recognition of the wider usage of the highway asset by communities and hence its true value to Herefordshire 	<ul style="list-style-type: none"> Integration of service delivery, driving the achievement of LTP shared priorities Supporting and enabling economic growth through the focused delivery of LTP priorities Safeguarding the environment through greater awareness and consideration of the environmental impact of transport and works to the highway asset Network management leading to reduced congestion 	<ul style="list-style-type: none"> We regularly hold staff workshops, involving our staff in the development of the service. The themes of these workshops have included TAMP, The Highway Maintenance Plan, Streetscene and Network Management Good Environmental Management GEM training and updates are given regularly All staff receive an SRD (Staff Review and Development) session annually The service is delivering a comprehensive programme of City Centre Enhancements and accessibility improvements, the primary objective of which is economic development The Head of Service has the role of Traffic Manager under the Traffic Management Act 2004. These duties are discharged through the area based structure An Operational Standards Manual is assisting in the delivery of consistent standards across the service. The Service is seeking QA certification to BS EN ISO 9001: 2000

8. TRANSPORT ASSET MANAGEMENT

Our vision is:

To provide and maintain a highway network that supports the transport needs of Herefordshire's communities whilst protecting and, where possible, enhancing the local environment.

In working towards this vision we aim deliver the following outcomes:

- A safer highway network;
- Improved travelling conditions for all highway users; and
- Greater care of the local environment.

The Highway Maintenance Plan is a working plan, updated on an annual basis to allow us to respond to changes in the social, political and natural environment. The strategy of the Plan is founded on a network hierarchy that covers all public highways in which the Council has an interest. The Plan allows for the continual development of that hierarchy to take account of local circumstances, such as Safer Routes to School schemes, access routes to sites of public importance, accident cluster sites, changes of traffic patterns, third party claims and road closures.



Combined improvement schemes provide a complete treatment

The core components of the Plan are Reactive, Routine and Programmed Maintenance operations. These categories are reflected in service standards and maintenance contracts, covering the following core functions:

Reactive Maintenance:

- ◆ Urgent repairs or safety measures - protecting highway users and minimising risk of further deterioration;
- ◆ Winter Service - minimising risks through precautionary treatment to prevent the formation of ice on 930km (29%) of the County's roads. Snow clearance is initiated when required; and
- ◆ Weather and Other Emergencies - dealing with the consequences of storms and floods, implementing the Council's Major Emergency Plan when necessary.

Routine Maintenance:

- ◆ Priority maintenance needs, identified through highway safety inspections; and
- ◆ Preventative maintenance, working ahead of highway safety inspections to address defects while they are in their 'infancy'.

Programmed Maintenance:

Programmed maintenance aims to establish and deliver a needs based programme of works, incorporating a holistic approach that covers a wide range of highway elements. The development of the programme focuses on maximising the impact of resources by reducing whole life costs. A key objective is to target maintenance resources at sites identified as being at or around the intervention thresholds indicated by condition surveys. This approach has proved effective at halting the overall deterioration of the network. The highway maintenance investment programme for the period 2006/07 to 2010/11 is set out in Table 8B. This reflects the overall local transport priorities, with the emphasis in the initial period on provision of new infrastructure within a stabilised maintenance environment, followed later in the period by greater investment in reducing the overall backlog of highway maintenance.

Table 8B: Maintaining the Transport Network Programme Summary

Strategy	2006/7	2007/8	2008/9	2009/10	2010/11
Highway Maintenance	6439	6144	7246	8051	8277
Rights of Way Improvements	25	25	25	25	25
Bridge Maintenance	900	700	700	700	700
Total	7364	6869	7971	8776	9002

All figures £000s

The delivery of this investment into local services is managed by the Council's Highway Maintenance Plan.

8.4 Carriageways

Carriageways form the largest element of the highway asset accounting for an estimated 70% of the asset value. They are also the element that is used by all transport modes and as such maintaining their condition at an optimal level is a key to the success of our maintenance strategy.

This strategy is founded on the principle that timely treatment presents better value to the travelling public, enhancing the overall condition of the asset at a greater rate than a worst first approach. Whilst adopting this principle we recognise we have both a duty to maintain and a legacy of under-investment. As such, we use a set of clearly defined community effects in addition to UKPMS outputs, to inform the priority given to sites within our overall programme of carriageway works.

The approach is also influencing our choice of treatments within the overall strategy. Increasing use has been made of surface treatments such as surface dressing and micro asphalts as the appropriate choice to extend the life of the carriageway and cover a significant proportion of the network. However, because of both the age of the network and its evolved nature, the need for both resurfacing and reconstruction still exists. These high cost treatments will continue to feature in our programmes in order to sustain the long-term health of the carriageway, recognising that all components of the asset have a finite life.

8.4.1 Halting Deterioration and Improving Condition

During the first LTP period the Council adopted a focused maintenance investment strategy to deliver the objective of halting the growth in the backlog of maintenance and achieving a sustainable improvement in highway condition over the longer term.

Key to this strategy has been the targeting of maintenance investment at roads where the condition indicators (from Coarse Visual Inspection surveys) are at, or around the nationally prescribed BVPI thresholds. Linked to a Local Public Service Agreement (LPSA) target to improve the condition of non-principal roads, this approach has proved very successful. All classes of non-principal roads have shown a marked improvement in condition as reported in Annual Progress Reports for the first LTP.

This strategy will continue through the period of LTP2 but investment in principal road maintenance will be given greater emphasis than during the period of the LPSA (principal roads are shown on Map 8A).

8.4.2 Assessing the Backlog

In the first LTP, Herefordshire's road maintenance backlog was assessed as approximately £26 million, based on £6million for

principal roads and £20 million for non-principal roads. Taken together with the annual maintenance demands, an investment programme of £16.7 million (revenue and capital funding) was indicated if the backlog was to be removed over a 10 year period.

Actual funding over the five year period of the LTP was well below this level (at approximately £12 million pa), but the deterioration has generally been halted and real improvement achieved.

Completion of the Transport Asset Management Plan will allow a more accurate assessment of the backlog to be produced and well defined annual monitoring of the management of this key asset to be put in place.

8.4.3 Principal Roads

In Herefordshire the principal roads form the strategic routes through the County and form some 11% of the carriageway asset. Historically the level of investment in these routes has been sustained (through ring fencing) at an acceptable level and this has been reflected in the condition indices. Recognising the usage of these routes, we consider factors such as skid resistance and accident investigation, in addition to structural condition as key influences in our maintenance strategy.

As previously mentioned, during the last three years we have deliberately shifted our emphasis towards the non-principal roads, successfully accelerating the rate of improvement in their condition. We are now re-addressing the balance with the aim of achieving an optimal carriageway condition for our principal roads.



A combined improvement scheme on a non-principal road

8.4.4 Non-Principal Classified Roads

These routes form vital links for Herefordshire's communities; in many instances they are equal in importance to the principal roads for our predominantly rural population. As previously stated this has been recognised in our recent investment decisions. The challenge we now seek to address through our maintenance strategy is to stabilise the condition of this

8. TRANSPORT ASSET MANAGEMENT

component of the asset, whilst recognising that its usage is diverse. This requires us to consider accident, skid resistance and other community factors on a more site-specific basis as we develop and deliver our works programmes.

8.4.5 Unclassified Roads

Unclassified roads form the largest component of the Carriageway Asset in Herefordshire, some 1525Km. In rural areas its construction is also the least structured. Conversely in the urban environment the opposite is often true. This dichotomy is a key influence on the choice of treatment within our maintenance strategy. Again we aim to stabilise the condition of this component of the asset at an optimal level, here recognising the amenity value of this asset and for its disrepair to potentially isolate remote communities, or for a lesser condition to go unrecognised by the majority of highway users.

8.5 Footways

The maintenance of a healthy footway network is essential if we are to achieve some of our wider objectives for modal shift, community health and economic development.

Again our Maintenance Strategy is founded on the principle that timely treatment presents better value and defined community effects inform the priority given to sites within our overall programme of footway works.

Here the choice of treatments is influenced not only by the existing structural makeup, but also by the desired usage of the footway or pedestrian area. Our approach is to tailor the quality of the materials used to match our wider aspirations for the site. This is particularly evident in retail centres, but applies equally to village environments, tourist centres and the suburbs.

8.6 Public Rights of Way

The Public Rights of Way (PROW) component of the highway asset has become increasingly important as an amenity asset. This is particularly important in a rural county like Herefordshire, where walking and riding are not only enjoyed by its residents, but forms a mainstay of local tourism. Recognising this shift in emphasis from what was mainly a transport asset to what is now considered both a transport and amenity asset, the delivery of PROW services is undertaken through our Adult and Community Services Directorate, which encompasses the cultural, leisure and parks and countryside functions of the Council.

Our strategy is to maintain and improve the accessibility of the network, whilst promoting certain routes that are particularly popular with users and usage of the wider network. Key to this is the delivery of the Rights of Way Improvement Plan outlined at Section 9.6

8.7 The 'Soft Estate'

Whilst the replacement cost of the 'soft estate' may be considered as low when compared to the carriageway and footway elements of the Highway, its influence on the use of the highway for both transport and amenity purposes can be extensive. This influence varies with the seasons and can be particularly acute in times of bad weather. The considerate maintenance of the soft estate is of particular relevance to the environmental impact of roads in a rural county such as Herefordshire.

8.7.1 Highway Verges

In urban areas our strategy is to deliver the maintenance of highway verges and visibility splays alongside the maintenance of the many amenity areas under the Council's control. This approach reflects the fact that our customers do not recognise the artificial boundary between the two asset groups. As such these urban areas receive a higher standard of maintenance than required for transportation purposes alone, but one that better satisfies the use the community makes of these areas.

In rural areas we have based our maintenance on the delivery of a blanket minimum standard, as required to satisfy safety criteria alone. However, recognising the usage that is made, particularly of the unclassified roads and potential environmental benefits, we are moving to an approach that tailors the frequency of verge mowing to the site. This approach should not only enhance the amenity and environmental value of parts of the network through a 'Quiet Lanes' approach, but also improve the safety of others through enabling a higher frequency of cut. In addition to this we currently manage 26 sites in a manner that specifically enhances their biodiversity and some 28 specific sites are targeted annually for the control of noxious weeds.

8.7.2 Highway Trees

Where trees are located within the bounds of the Highway we have aligned the frequency of arboricultural assessment with that used in the Council's amenity areas, with more frequent inspection being undertaken by our Highway Inspectors. The results of these activities have informed our maintenance strategy. However the majority of trees whose condition could influence the safe usage of our roads are located in hedgerows and adjacent land. Here our strategy is developing in line with the risk presented to the user, taking account of landscape character, biodiversity and wider environmental issues.

8.7.3 Ditches and Grips

Whilst the duty to maintain most of the roadside ditches sits with the adjoining landowners, we recognise that good drainage is fundamental to the health of the highway asset as a whole. As such it is part of our strategy to pro-actively exercise our powers and clear roadside ditches and drainage grips on a regular basis. This investment represents a better value return than repairing the carriageway edge damage and



Regular ditch drainage clearing benefits the health of the highway

general deterioration that results from the neglect of this vital component of the asset.

8.7.4 Highway Drainage

Proper drainage is vital to the long term health of our roads. The maintenance and improvement of highway drainage systems is included for in the delivery of all highway maintenance schemes, this as part of our 'Total Package' approach. Routinely our strategy is to shift from an output based approach with a target to clear all roadside gullies annually, to move to an outcome-focused approach that keeps all gullies operational, all year around.

8.8 Bridges

Bridges are an important asset to the County and those carrying public roads have a present day replacement cost estimated to be £136M (using the recently published estimate of £4800 per sq metre for replacement). This asset value now informs Service priorities and the management processes used for maintaining the bridges and will be a key element within the developing Transport Asset Management Plan.

Table 8C: Herefordshire Council Bridges at 1 April 2005

	Principal Road Network	Other Principal	Other Roads	Totals
Bridges Span Over 1.8m				
Assessed as Full Strength (or at the appropriate strength)	73	45	366	484
To be Assessed	3	0	24	27
Below Full Strength	1	1	16	18
Total	77	46	406	529
Span 1.5 to 1.8m				
Assessed as Full Strength	7	11	78	96
To be assessed but assumed to be Full Strength	-	-	32	32
Below Full Strength	-	-	1	1
Total	7	11	111	129
TOTALS	84	57	517	658

Table 8D: Private Bridges at 1 April 2005

	Principal Road Network	Other Principal	Other Roads	Totals
Bridges Span Over 1.8m				
Assessed as Full Strength	4	3	41	48
To be Assessed	-	-	1	1
Below Full Strength	-	-	7	7
Total	4	3	49	56

8. TRANSPORT ASSET MANAGEMENT

The processes underlying our maintenance of the bridge stock are undergoing a radical development with changes to inspection regimes, improved partnering for advances in scheme selection and proposals, enhancements in procurement, and the introduction of specialist software to meet the needs of Bridge Condition Indicators and Performance Measures. Together this will bring reduced life cycle costs, defined service levels and an enhanced ability to track performance.

This work is seen as a long-term investment that will increase the knowledge of our bridge stock and condition trends, validate the benefits of maintenance, develop a long-term maintenance programme and predictive needs and enhance our electronic enablement of the service. This incorporates the guidance given in the Code of Practice for the Maintenance and Management of Highway Structures published in September 2005. Additionally the introduction of Performance Measures have been trialled and are being fully incorporated in the changes. These advances will allow progress to evidence based maintenance that makes the best use of the existing infrastructure.

8.8.1 Bridge Assessment and Condition Monitoring

We have now assessed 502 of the 529 Council owned bridges with a span equal to or greater than 1.8m and all private bridges (a total of 56). Further refined assessments have been carried out on below strength bridges. A summary of the assessment programme is set out in Tables 8C and 8D.

The Council has historically taken a pragmatic approach to 40 tonne assessment results and accidental wheel load failures for small span bridges. A number of these where it is considered safe and cost effective have been left unrestricted with a management strategy in accordance with best practice. This approach is generally applied on lightly trafficked roads where the instances of heavy goods vehicles are known to be low. However, we remain alert to changes in environmental conditions that may lead to rapid deterioration in a bridge's condition. Some bridges while being monitored are also programmed for strengthening.



Making sure bridges remain open is vital to local communities

8.8.2 Bridge Assessment, Strengthening and Replacement Programme

With the significant changes in traffic loading (due to, for example the nature of agricultural plant and the types of vehicles servicing rural businesses), problems such as structural damage due to changing load patterns on masonry structures, damage to concrete structures by de-icing salts, breakdown of water-proofing membranes, corrosion of steelwork and general deterioration are beginning to appear with Council owned bridges. This is altering the way the bridge stock is managed.

Structure management and the assessment of the role of the structure is now becoming a pro-active procedure involving traffic flows, percentage of heavy goods vehicles, suitability of alternative accesses, length of the alternative routes and historical significance. Equally the maintenance techniques now need to be actively reassessed and the point at which a structure is monitored or included in the strengthening programme cannot be considered as fixed.

There are 15 bridges on the PRN that, while currently unrestricted, are showing notable signs of a change of condition. These will be given priority for re-assessment and analysis to determine real changes to functionality and hence the need to be included in our work bank.

Our judgement will be guided by considerations of diversion routes, abnormal load routes, the impact on the network of adjacent authorities, the impact on local communities, safety and the potential for negative impacts on our network strategy and management (all as part of our TAMP).

Colwall Green Railway Bridge has an assessed capacity below full highway loading. Due to its local importance as a vital access to major industrial units in this small community it has been unrestricted to date. A recent re-assessment following routine monitoring has led to the introduction of traffic management measures to restrict traffic to single way working. This arrangement allows for the continued use up to full highway loading with continued monitoring. We recognise the paramount importance of the bridge to the community and to the local industry and are therefore in discussions with Network Rail to prepare a scheme to bring the bridge back to full capacity. Initial indications are that the deck will need to be replaced.

8.8.3 Retaining Structures

We are responsible for approximately 1.1km of highway retaining walls of structural significance. The data on this asset is currently very limited, but as the TAMP is developed further information has been confirmed and collected. This will be used to deliver greater efficiency and effectiveness in the maintenance of retaining walls.

8.9 Street Lighting

Our objectives for street lighting extend beyond simple illumination. The provision of lighting can provide a safer, more secure night-time environment and its proper management can produce environmental, monetary and customer satisfaction gains for the County. In Herefordshire all street lighting activities are considered in the context of whole life costing. This approach ensures that all future costs, including energy implications, social benefits and environmental issues are taken into account in the decision process.

8.9.1 The Lighting Stock

The repair of faults in our existing street lighting stock is the key activity on which our customer's perception of the service is based. This activity is underpinned by routine lamp changes, cleaning, electrical and structural testing and painting. As with other elements in the highway asset, the lighting stock has a finite life. We have established an ongoing renewals programme, which is aligned with the age profile of our lighting columns in order to ensure continued safe and reliable operation. In addition to this street lighting renewals and improvements are considered in the delivery of other Highway Schemes, as part of our 'Total Package' approach. This is particularly evident in the delivery of Traffic Calming and Pedestrian Crossing improvements, where the provision of well designed lighting can enhance and in some cases provide the necessary feature to secure the night-time effectiveness of the scheme.

Within Herefordshire there are approximately 13,000 street and amenity lights, illuminated traffic signs and bollards, installed for the safety of members of the public during hours of darkness.

8.9.2 Energy

Herefordshire's street lighting has a total electricity demand of some 850kW, all of which is procured from renewable sources. This approach is supported by our investment in energy efficient equipment, for example; photo-electric cells have replaced thermal units to improve the accuracy of switching at dusk and dawn and to reduce wastage, not only due to failed cells causing street lights to be on throughout the day, but as the cell itself uses less energy.

8.10 Traffic Signals

Whilst the traffic signals asset is not that extensive in Herefordshire, with a total of 52 signalised junctions and crossings on non-trunk roads, it does provide a very targeted and essential level of control on traffic movements. Our maintenance strategy is founded on an annual overhaul and 6 month check of all signal equipment and the ability to react quickly to any loss of service. To date our programmed maintenance has centred on the replacement of the SCOOT system that manages Hereford's traffic signal installations and

the delivery of other maintenance alongside other works as part of our 'Total Package' thinking. We recognise the need to develop a more robust renewals programme for this asset



6 monthly checks of all signal equipment and the ability to react quickly to any loss of service ensures traffic flow is maintained

group as part of our TAMP processes, particularly as the life-span of much of this equipment (due to advances in technology as well as its physical nature), is considerably less than many other components that make up the Highway.

8.11 Good Environmental Management - ISO 14001

The Authority has attained ISO 14001 certification, the International Environmental Management Standard for its Good Environmental Management (GEM) system. The delivery of highway maintenance is undertaken in accordance with GEM procedures so as to maximise its environmental contribution and sustain Herefordshire's biodiversity and character.

8.12 New Infrastructure

Our objectives for local transport improvements can only be achieved through the provision and subsequent maintenance of key elements of new transport infrastructure. The Council has recognised all elements of the local transport asset have to be managed as a consistent and coherent network with the overall priority of maximising public benefit from the investment. Annual reviews assess investment priorities to confirm the consistency of our developing highway and transport programmes with the delivery of key priorities.

As part of our Highway Maintenance Plan all significant new transport infrastructure schemes are subject to maintenance audits, ensuring that effective delivery of transport benefits is not eroded by unsustainable maintenance requirements. We will develop this approach further as we develop our TAMP. In particular, we will ensure that the justification for future improvement schemes includes not only the capital cost but also the whole-life revenue costs, so that fully informed decisions can be made between options.

The unified delivery of new schemes and maintenance programmes through our Area Teams is designed to secure the sustainable management of the transport network.

8. TRANSPORT ASSET MANAGEMENT

8.13 Working in Partnership

8.13.1 Service Delivery Partnership

In 2003 the Council created an innovative 10 year Service Delivery Partnership with Herefordshire Jarvis Services and Owen Williams. For highways and transportation schemes, the Partnership operates to an annual 'Joined Up Programme' of works (JUP) that is jointly reviewed and developed each year. Delivery of this programme is continually monitored to drive the optimum use of resources and to manage delivery against targets.

The JUP is being further developed to encompass a five year rolling programme, allowing the Partnership to identify investment and resource demands which can support the most efficient procurement and delivery of appropriate treatments.

Data collated from the output of the United Kingdom Pavement Management System (UKPMS) forms the foundation for the JUP for highway maintenance, with initial prioritisation by the use of an economic policy method. This approach provides an objective assessment of where treatment could most effectively be applied to prevent or minimise further deterioration from consideration of cost parameters, including whole life maintenance work costs, delay costs and accident cost.

To maximise the effectiveness of investment in maintenance within the overall local transport provision, the technically based prioritisation (using highway condition surveys) is further refined to address the wider transport and community priorities, such as casualty reduction, Safer Routes to Schools, health centres and visitor attractions.

The Area Teams, with responsibility for securing delivery of all LTP projects within their part of the County, will monitor the progress of programme delivery to seek opportunities for co-ordination of schemes into single, local packages of work. This approach improves efficiency by reducing total costs, or maximising the benefits obtained from the individual schemes.

8.13.2 Working in Partnership with the Community

Herefordshire Council is committed to partnership working throughout its services. One of our top priorities is to develop our community leadership role, working with partners to achieve the Herefordshire Plan ambitions. Highway and transport management is widely regarded as one of the most important local services and one for which effective local engagement is essential.

The Area Teams within the Highways and Transportation Service are responsible for maintaining close liaison with local representative groups and for responding to concerns expressed about their services.

We recognise that, in an environment of strongly competing demands, it is important to manage local expectations. Through presentations to Community Forums, our staff explain the basis of the Highway Maintenance Plan and the LTP.

8.13.3 Parish 'Lengthsman' Scheme

Building on the success of a pilot scheme in 2000 to delegate minor highway maintenance functions to Parish Councils, we have steadily expanded this project, known as the 'Lengthsman Scheme', to cover 37 parishes and parish groups by 2005. A further 54 parishes are to be included by 2006.



The 'Lengthsman' Scheme encourages closer working between local communities and Herefordshire's HMT

The minor highway maintenance works carried out by parishes under this scheme include grass cutting of amenity areas, hedge and fence management, drainage, the removal of litter and debris and the maintenance of signs. This allows local communities to take responsibility for prioritisation within this range of local needs. One of the key achievements of the scheme is the creation of close working relationships between community groups and Herefordshire's Highway Management Teams, to promote the early identification of potential maintenance needs to maximise the benefits from integrating local maintenance functions with wider programmes.

8.14 Targets and Performance Management

The Council manages the delivery of its services through its corporate performance management framework, setting challenging targets to achieve real improvements in local services.

In addition to the national Best Value Performance Indicators (BVPIs) for highway maintenance (which are set out in Section 10 at Table 10F), a range of key performance indicators (KPIs) have been adopted for the Service Delivery Partnership. These KPIs reflect the principles of Rethinking Construction to deliver 'year on year' improvements in performance, costs, safety and satisfaction.

For Herefordshire performance management is not just an inward looking exercise, the Council actively involves itself in benchmarking and customer consultation. We are members of the National Highway Works Benchmarking Club (NHWBC) and the Midlands Service Improvement Group (MSIG, formally the Midland Highways Benchmarking Group). The NHWBC focuses its indicators on the service delivery processes, particularly the client/contractor interface and the MSIG on service standards. Our work with the MSIG has led to the joint development of a generic framework for each Authority's TAMP. This collaborative working will reinforce our ability to compare performance as we further develop our asset management approach within our TAMP.

8.15 The 'Streetscene' approach to Services

To enhance the delivery of our routine works on the network the Council has adopted a Streetscene approach to a number of its services. Streetscene has been defined for Herefordshire as providing:

'An integrated approach to the management of services, to enhance the public safety and satisfaction in the street environment'

This approach to the management of our streets has significant benefits for our customers and service users, providing a single point of contact for enquiries across a wide range of services and minimising duplication of maintenance and enforcement functions.

Highway maintenance is enhanced by the improved ability to identify potential hazards or defects in the course of the wider street management functions which is essential in agricultural areas with unsuitable diversion routes.



8.16 De-trunking

Two sections of the national trunk road network in Hereford have been defined as non-core routes. These are:

- ◆ A40 (Ross - Lea - Gloucestershire boundary), 8 km of two lane single carriageway; and
- ◆ A465 (A49 to Welsh border), 16.4 km of two lane single carriageway.

Herefordshire Council has accepted the principle of de-trunking for both routes and has agreed detailed arrangements for the de-trunking of the relevant section of the A40. The A465 forms part of a strategic route from South Wales to the A49 and the Welsh Assembly Government has not yet accepted that any part of this route should be detrunked. In the absence of agreement to de-trunk some, or all, of the routes in Wales, Herefordshire Council will not be able to accept a change in status of the route in England.

If the Welsh Assembly Government does accept de-trunking of the route in Wales, the Council will wish to discuss with the Highways Agency the detailed proposals for de-trunking from the Welsh border to Hereford. In particular, the Council will need to be satisfied that adequate arrangements are in place to cover future management and maintenance of the route, particularly with regard to the condition of structures and the provision for casualty reduction measures.