



Warrington Borough Council
Transport Asset Management Plan

April 2011

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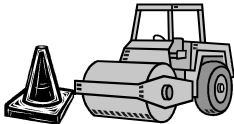
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Warrington's Transport Asset Management Plan

This document sets out the Strategy for the delivery and development of Warrington's Transport Asset Management Plan for the period 2011-2014. The Transport Asset Management Plan (TAMP) whilst a stand alone plan is a supporting document of the Local Transport plan (LTP3). The management and maintenance of the highway and physical assets that makes the fabric of the transport network is an important theme in the delivery of the LTP3 and a statutory duty of the council as the Highway Authority under the Highways Act 1980.

LTP3 Theme	Includes ...	Description
Asset Management 	Carriageway condition, footway condition, street lighting, highway structures, signs and street furniture, public transport infrastructure and public parking infrastructure.	Asset Management focuses on our proposals for maintaining the physical transport assets which make up the transport networks for which we have direct responsibility. The local highway network and associated infrastructure forms the largest capital asset for many local authorities and includes roads, footways, cycle ways, bridges, street lighting, traffic signals, bus stops, street furniture and signs. Asset Management is the process by which we seek to ensure an optimal allocation of resources towards the management, operation, preservation and enhancement of infrastructure in order to meet current and future needs.

The Government's Comprehensive Spending Review (CSR) in October 2010 resulted in a reduction in LTP funding over the next two years but largely retained the LTP Highway Maintenance allocations. A reduction in revenue available for the Authority to maintain its assets has also resulted following CSR meaning that overall there will be an impact upon the management and maintenance of the transport network and its assets.

The condition of transport assets and the local environment is something that Warrington residents feel strongly about. The impact of the most recent severe winters has resulted in a sudden and severe decline in the condition of the road network as highlighted by the most recent National Indicator results and has seen a 40% increase in potholes reported and requiring repair. Whilst much welcomed government support will assist with this particular problem in 2011/12 prioritising funding for the management of assets will be a challenge in the coming years.

This TAMP will therefore focus on the management and maintenance of the core transport assets including roads, footways, street lighting and bridges over the next three years (2011/12 to 2013/14) and aims to compliment the LTP and Council's aims and objectives for this period taking account of known available resources.

What is Transport Asset Management

Transport Asset Management emerged in 2005 with the launch of the Framework for Highway Asset Management. Highway assets have long been identified as a fundamental asset but did not have a national framework associated with how the assets should be managed. Due to the need to value and account for the transport infrastructure in a consistent way with the introduction of Whole of Government Accounting (WGA) across the country a framework was launched to allow assets and inventory to be documented allowing the value of the transport asset to be recognised.



Definition of Transport Asset Management

There are many definitions associated with the management of transport assets and for Warrington the following definition as suggested in the CSS Framework for Highway Asset Management is considered most appropriate.

“Asset Management 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”

Scope of the TAMP – What are Transport Assets?

Transport Assets and infrastructure are all the physical things that you can touch and see on the roads as you travel on the public highway. Some physical assets are horticultural in nature e.g. trees and verges but most of the physical assets are used and relied upon by people to travel or be transported by a range of means around the Borough.

There are many different assets and components to consider that make up and form part of the highway and transport infrastructure and require to be managed within the principals of transport asset management. The data collection and analysis requirements for the production of a TAMP are complex and take time and resource to collect. It is essential that this collection and analysis is undertaken in a robust way to allow the right decisions to be made on levels of service and allocation of resources for the future.

The transport assets that this edition of the TAMP will cover include:

- Carriageway (Road's) and Footways
- Street Lighting
- Bridges and Structures

The above are classed as the core asset group. In addition to the core asset group there are various components and other asset types that include but are not exclusive to the following assets:

- Traffic Management
- Street furniture
- Signs and nameplates
- Drainage and gullies
- Road markings and traffic regulation orders
- Traffic signals
- Gantries, bridges, tunnels, culverts, retaining walls
- Earthworks, land
- Verges
- Trees
- Crossing facilities
- Bus priority routes
- Bus stops
- Transport interchanges and infrastructure
- Taxi facilities
- On street car parking

Examples of local characteristics and transport uses that need to be considered within Warrington when assessing assets include but are not restricted to

- Conservation areas
- District Shopping Centres, City and Town Centres
- Waterfronts
- World Heritage Sites
- Major Sports facilities including Football and Rugby grounds
- Motorway / major link roads that link to the Highways Agency networks
- Reservoirs
- Major events incl. football matches, walking days, marathons

Later editions of the TAMP will also reflect the results of further work to improve asset data and analysis of that data. Area where further work is required is detailed in the plan. Complimentary documents to this TAMP will detail the individual asset management and lifecycle investment plans that will require review and updating for the core asset groups. A timetable for presenting asset lifecycle plans and investment strategies is contained within the action plan.

TAMP – Objectives

The TAMP builds on existing processes and systems, providing a continuous framework of review to help inform decisions on the optimisation of budgets and scheme programmes. The asset management approach is intended to produce:

- Reduced whole-life costs, through better planning and review of techniques.
- Better customer satisfaction through defining and meeting agreed levels of service.
- Better control of risks.
- Better informed and more transparent, investment decision-making.

Warrington has been applying asset management principals and codes of good practice for a number of years due to the statutory nature of the work that is needed to maintain and manage the highway and transport network. This TAMP is therefore in part a reaffirmation of the existing policies, processes, practices and procedures that Warrington delivers and aims

to pull together the existing policies, practices and procedures associated with management and maintenance of Warrington's core transport assets. The objective of this TAMP is to give a clear understanding of what assets we have, what they are worth and how these assets are being managed and looked after.

Policies, procedures and practices will be reviewed as required during the delivery of the TAMP and will be integral to the delivery of Warrington's statutory duties and service delivery for the future as well as informing and contributing to the delivery of the third Local Transport Plan and Warrington's longer term capital strategy.

The reviews and ongoing development and delivery of the TAMP will take into account organisational aspirations, demand and resource limitations that will also be regularly reviewed to form part of the continuous improvement and transformation model that Warrington seeks to deliver for its stakeholders.

Why do we need a Transport Asset Management Plan (TAMP)

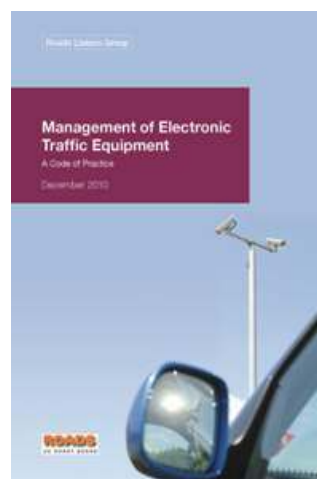
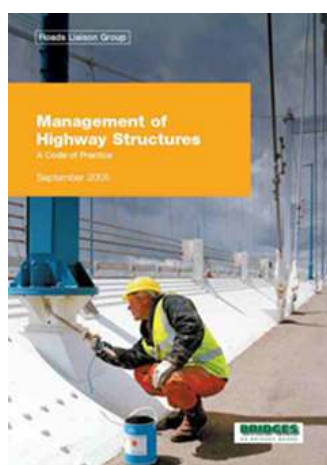
The Council exists to provide services to the community, businesses and stakeholders. Businesses, services and communities in turn rely on highway and transport infrastructure and associated assets to function on a daily basis.

Effective management and maintenance of highway and transport infrastructure and assets also supports the wider economic growth and prosperity of an area and contributes to the regeneration, safety, health and wellbeing of local communities and businesses.

The highway and associated infrastructure whilst taken for granted is the most highly visible and valued physical asset both in financial and community terms. The council as a Highway Authority has a statutory duty to maintain this infrastructure and associated assets as determined by legislation and codes of good practice. The “Well-maintained Highways code of practice” sets out a national framework of good practice for maintenance of the largest capital asset the council maintains - its roads.



There are other recognised sister documents in the form of codes of practice that set out management and maintenance of the other core asset groups namely “Well Lit Highways” and “Management of Highway Structures” and Management of Electronic Traffic Equipment”. All codes of practice are recognised and are applied and adopted as best practice and are reflected in the delivery of services currently delivered by Warrington.



Nationally the management and maintenance of the transport network and highway assets is under immense pressure due to increase in its demand and usage, the changing climate and most importantly due to limited and shrinking funding required to maintain it to an expected state of repair and condition.

Transport Asset Management Plans (TAMP) are therefore required to be developed and relied upon to enable Council's to be more effective in its decision making. The TAMP also allows the Council to be transparent and to demonstrate effective governance and

accounting for limited resources surrounding the management of the most valuable assets the Council has responsibility for.

This core document will give the strategic outline and approach to the delivery of Warrington's TAMP and will be supported by other key documents, policies and procedures and information as referenced within this document.

The Drivers for Transport Asset Management Planning

The move to ensure transport asset management planning is integrated into practice is through the following:

- Local Transport Plans (LTP3). Central Government are expecting asset management to be emphasised and integrated into local transport planning.
- Whole of Government Accounting (WGO). Central government is working towards introducing WGO across the public sector and transport asset valuation will be a fundamental part of this process.
- The Prudential Code. With existing resources becoming increasingly difficult to secure and stretch the Prudential Code has been introduced to enable authorities to manage assets through a 'spend to save' option. Asset management plans will be the tool that enables authorities to consider this as a viable alternative funding source.
- Comprehensive Spending Review. The need to demonstrate effective and cost effective management with shrinking resource is a reality that needs to be planned for.

Purpose of the Transport Asset Management Plan (TAMP)

The purpose of this Transport Asset Management Plan (TAMP) is to identify and set out in a clear and consistent nationally recognised framework the management requirements and arrangements for Warrington's transport assets. The document is based upon the principals set out in the County Surveyors Society (CSS) framework document for Highway Asset Management and is the first published TAMP to be produced in line with this guidance document for Warrington.

The value of producing a TAMP is that it will enable the Authority to review and improve its practices and decisions in a transparent and recognised way both locally and nationally given the challenges it faces going forward.

The TAMP will also be an evolving and flexible document that will shape and determine and facilitate the long term future methods of management and service delivery associated with the highway and transport assets. The continuous development, review and improvement of the plan will take into account corporate vision, policy aims and objectives, local transport plan objectives, whole life costing principals, customer expectation, statutory requirements and future likely funding arrangements.

By regularly reviewing and updating the TAMP and incorporating it into Warrington's Corporate Asset Management Planning process will allow an evidence based approach to funding needs to be identified and planned for.

Benefits of Asset Management

All those who live, work, travel or utilise the assets within Warrington will benefit from the development TAMP. It is intended that the customer will benefit from an appropriate level of service based on a true evaluation of the asset at a local level. The production of this TAMP will assist with planning for the challenges identified during the course of the coming years.

A benefit occurs for the customer when they receive an improved level of service for the resources available, i.e.:

- The same or better service at a reduced costs,
- A better level of service at the same or marginally increased cost or
- Where owing to budgetary constraints it is not possible to maintain the level of service, the effects of the reduced level of service is mitigated through efficient use of resources.

The above can be achieved through working more effectively with supply chain, adjacent authorities and looking at alternative ways of working, sharing best practice and establishing measured outcomes that are easily communicated to the customer.

Specific benefits of a developed asset management approach will include:

- Defined levels of service
- Clear responsibilities and accountabilities for the assets
- Transparent decision making
- Ability to monitor and track performance
- The ability to predict the outcome of funding decisions
- Reduce whole life costs and future risk

Strategic, Corporate and Local Frameworks

The National and Regional policy context for Asset Management

In January 2011 priorities for transport was confirmed through a new government White Paper on transport, '**Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen**'. This White Paper brings together the key messages announced by the Coalition Government and initiatives for local transport and recommends an approach to improving local transport which emphasises the need for measures which both Support Economic Growth and Reduce Carbon Emissions. Effective Asset management should assist the LTP3 in achieving these goals.

The most urgent issue identified by the Coalition Government in June 2010 was the need to reduce the financial deficit and work towards continued economic recovery.

In terms of regional policy and governance, significant changes are happening. The Government has announced the abolition of the Regional Government Offices with effect from 31st March 2011. One of the ways in which this transition is being managed is through the establishment of Local Economic Partnerships (LEPS). Warrington has joined with Cheshire East and Cheshire West and Chester to form the Cheshire and Warrington Local Economic Partnership. LEPs have also been formed locally in Greater Manchester and Merseyside.

What is the policy context at a Local Level?

With the changes happening at a regional level, the policies of the borough and of its adjoining authorities and partners at a local level will be critical in shaping the direction of future success. Listed below are some of the key strategies, partnerships and drivers which Warrington's future transport asset management plans and policies will need to consider.

Warrington's Sustainable Community Strategy

The TAMP supports the LTP3 aims by focusing on those transport issues with most importance at a local level. '**One Warrington: One Future** Where Everyone Matters' is the Sustainable Community Strategy for Warrington that has a vision that ...

“by 2030, Warrington will be recognised as one of the best places to live and work in the UK, where everyone enjoys an outstanding quality of life”

The ambitions in the Sustainable Community Strategy are wide ranging and as the vision suggests they are intended to deliver improved quality of life for all residents and visitors to the borough. The quality of the infrastructure and the management and maintenance of the environment contributes directly to the quality of life of residents and visitors to the area.

Local Development Framework

A draft Core Strategy for Warrington will be published in 2011 and will undergo a period of public consultation. The draft Core Strategy will draw upon the current spatial planning approach which emphasises regeneration within the inner area of Warrington together with selected release of strategic sites. This will shape and determine the growth in transport assets that the authority will need to manage and maintain.

Cheshire and Warrington Local Economic Partnership

The **Local Enterprise Partnerships (LEPs)** are replacing the Regional Development Agencies and have been formed as strategic partnerships between private, public and voluntary sectors. The Cheshire and Warrington Local Enterprise Partnership has set the following vision to guide its activities:

“To make Cheshire and Warrington quite simply the best place to do business in the UK. We will provide the ideal environment for businesses to grow: access to the right skills; supportive and efficient public services; effective infrastructure and utilities; and a beautiful part of the country for people to enjoy.”

Having a robust well managed infrastructure and assets will support this vision.

Supporting Regeneration in the Town Centre

Delivering enhancements to the transport network within and linking to the town centre, for all modes of travel, will be critical to the success of any redevelopment scheme and, as the plans develop, transport and accessibility issues will be at the core of considerations. Having robust well managed transport infrastructure and assets will support the sustainable regeneration of these areas.

Mersey Gateway

The proposed second crossing of the River Mersey in Halton received planning permission on 20th December 2010 having previously been included in a list of schemes approved for government funding announced in the October 2010 Comprehensive Spending Review. The funding package will require the imposition of tolls on both the new Mersey Gateway and existing Silver Jubilee bridges at a level comparable with the fee charged for using the Mersey tunnels. The Mersey Gateway bridge is currently scheduled to be open to traffic in late 2015. Warrington BC has been a keen supporter of the proposal to deliver a new bridge across the Mersey in recognition of the significant economic benefits expected for the region.

As Halton Borough Council continues to develop the Mersey Gateway scheme and in particular to set the toll prices, the Council will closely monitor the potential impact on increased traffic levels in Warrington of the proposed tolls. Once the Mersey Gateway is open, the actual level of traffic diversion will be monitored very closely to establish whether traffic diversion is as predicted and if any transport assets and their relative condition are affected.

Powers, Policies and Service Delivery

The Legal Framework, Powers, Duties and Responsibilities

Management and maintenance of the highway network is based on statutory powers and duties set by legislation and precedent developed over time. The principal pieces of legislation affecting highway authorities and asset condition are:

- The Highways Act 1980
- The Traffic Management Act 2004

The above key legislation sits within a much broader legislative framework specifying a wider range of powers, duties and standards relating to highway management. This broader framework covers road traffic, health and safety, environment, human rights etc.

The Highways Act 1980 sets out the main duties of highway authorities in England and Wales. The most fundamental being section 41 which imposes a duty on highway authorities to maintain highways maintainable at the public expense. Almost all claims against highway authorities arise from an alleged breach of this duty. Section 58 provides a statutory defence against alleged breach of duty.

The Traffic Management Act 2004 imposes a network management duty on local traffic authorities, which includes highway authorities. This duty requires authorities to secure the expeditious movement of traffic on their road network and to facilitate the expeditious movement of traffic on another authority's network. The network management duty applies to the whole authority when exercising any of its legislative powers which impact on the operation of the highway network.

Authorities are required to appoint a Traffic Manager, which is a statutory appointment, to administer and oversee the network management duty.

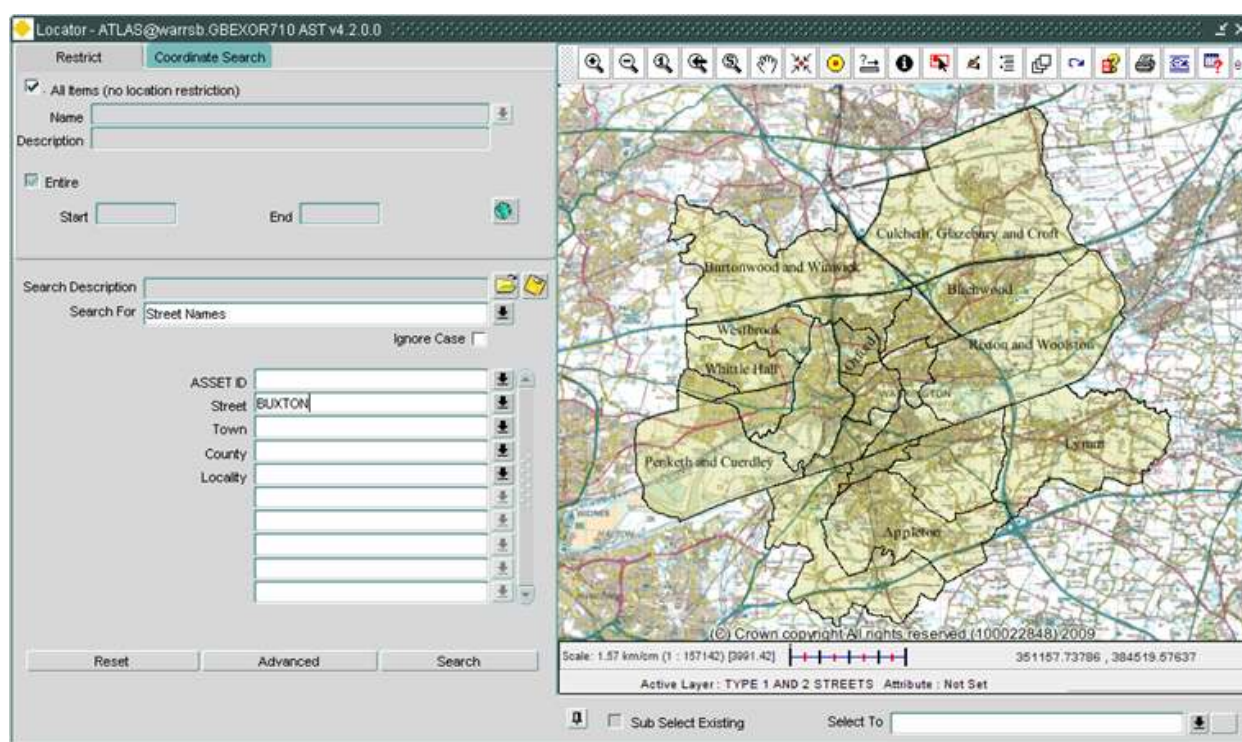
Highway authorities owe the wider public a duty of care to maintain the highway in a fit state for the "ordinary traffic which passes or may be expected to pass". There is no obligation to improve the highway. (*Stovin v Wise* (1996) and *Gorringe v Calderdale MBC* (2004)).

Review of Current Policies, Processes and Procedures

A policy and highway maintenance service review has been carried out during 2010/11 to identify gaps in the authorities published and documented highway related policies and procedures. The review has concentrated on highway management and maintenance policies particularly those with a link to highway safety and management of reactive works.

Essential policies including those relating to safety inspections and winter service are in place and have been approved and endorsed by Members. The highway routine maintenance operations carried out by the authority follow the guidance in the "Well – maintained Highways" code of practice.

All authorities need to have a highway management system (HMS) that documents highway related activities and inventory that allows potential claims for damages to be defended and trends to be managed. The authority has recently upgraded its highway management system “Exor” to enable enquiries and defects to be visible on maps. The system is used to manage customer requests and enquiries. It is linked to the Council’s call centre and enables the council to monitor customer requests and concerns by type, ward and road. The information is useful when reviewing service provision and reporting to Members. Exor is also used to manage the interface with the utility companies when they wish to work on the highway. This enables the council to control and monitor utility company activities and forms part of the council’s network management duty. Exor also contains an inventory of all repairs that have been undertaken on the highway.



The Exor system will extend its use across the whole of the highways service and interface with the United Kingdom Pavement Management System (UKPMS) highway condition survey information.

The UKPMS system and surveys undertaken is a nationally accredited system that authorities are required to undertake in order to assess road condition. Traditionally used for production of national best value performance indicators the system contains a wealth of condition data that when interrogated can determine those sections of road that require maintenance. Together with the Exor HMS system the UKPMS system will be developed to assist in managing the highway asset by having the ability to develop data led treatments and works based on whole life costs. The network inventory will also be held in Exor. This will have particular benefit when full asset accounting and depreciation is fully implemented. It will also be possible for various highway data sets, condition, traffic, collisions etc, to be displayed against a map background which will be used by the highway teams to formulate options for work on the highway.



Current Service Delivery Practices and Procedures

The council has three service delivery channels for its transport asset services.

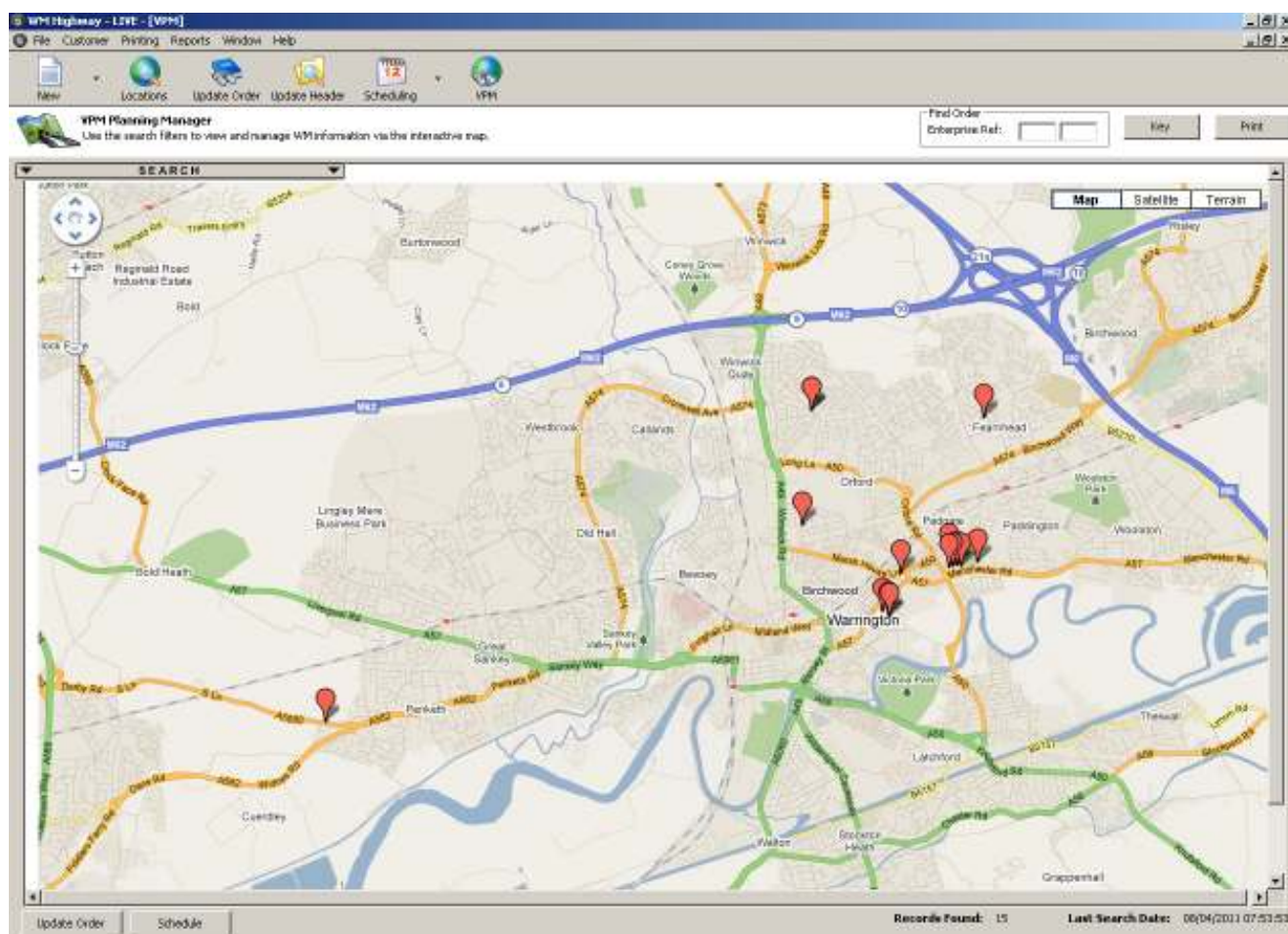
- Direct Services Organisation, DSO (in – house)
- Enterprise Plc (highway term contract)
- Individual works contracts (site specific)

The DSO delivers the street lighting, gully emptying and highway drainage cleaning, highway verge and highway tree services. The DSO also deliver similar services for the non highway responsibilities such as car park lighting, open space and woodland management.

The DSO work closely with community groups to ensure as far as possible that the service matches local needs. The DSO is a flexible option for the council as they are managed directly by the council and can respond accordingly. The DSO has an out of hours capability to deal with tree emergencies and assist with the winter service during snow events.

The highway term contract with Enterprise Plc covers reactive highway maintenance, patching and minor repairs, small and mid sized highway schemes, winter service and the 24/7 highway emergency provision. The contract was awarded in 2007 for 7 years with an option for extending by up to 3 further years through a competitive tendering process. The award criteria was based on price and quality. Enterprise Plc is closely involved with delivering one of the council's flag ship projects, The Look of The Borough. Enterprise's input is the timely effective response to highway defects such as potholes using specialist teams.

Enterprise have also invested and upgraded systems that allow visible tracking of repairs issued to them by Warrington. This is resulting in improved performance management.



The larger highway maintenance schemes and programmes are procured through individual tendered contracts. This gives competitive market prices and matches the contractor to the work requirements.

Street lighting also operates and uses a street lighting inventory and management system. Mayrise similar to Exor logs calls, registers inventory and repairs and tracks performance of the street lighting assets. The inventory and system integrity was integral to the PFI expression of interest and award of credits being successful. This is why Warrington is able to develop investment options and strategies.

Bridges inventory and asset management database is managed in a number of different databases and therefore requires reviewing during this TAMP period.

TAMP details – What Transport Assets do we have

There are many different types of transport assets that exist in the Borough. When you consider that a single street light alone has over 85 inventory components associated with its management deciding on what to maintain when can be very complex. This is why there are recognised highway management systems in place to store and analyse this detail.

The table below identifies headline core asset types and numbers that need to be managed.

TAMP – Core Assets and Inventory items

Asset Management – Headline Facts - 2011

ROADS

- Warrington Borough Council has 978 km of highway network to maintain;
 - 101 km on principal 'A' roads,
 - 36 km on 'B' roads,
 - 80 km on 'C' roads and
 - 758 km of unclassified roads and passageways.

BRIDGES AND STRUCTURES

- There are 207 bridges and structures owned by the authority which are on the publicly maintained highway. There are a further 19 Network Rail bridges, 2 privately owned bridges, 13 waterway bridges and 71 highways agency structures that carry or span publicly maintained highway. In addition there are in excess of 700 other assets in the structures group that are not on public highway.

LIGHTING AND ILLUMINATED ASSETS

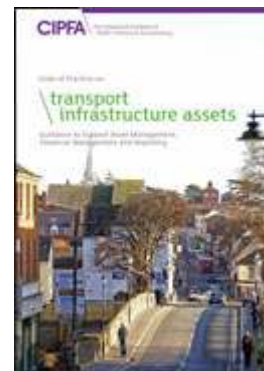
- There are 26,398 street lighting columns, 3,374 illuminated traffic signs & beacons, 1,070 illuminated bollards and 211,000 metres of electric cabling for which the Council has responsibility.

OTHER ASSETS

- Additional infrastructure includes over 300 items of traffic management equipment including variable message signs, real time passenger information in over 200 bus stops, car park management signs and CCTV. There are 79 signal controlled junctions with a further 66 controlled pedestrian facilities. The Authority also runs a UTMC system and traffic control room with 'state-of-the-art' database and traffic management systems.

Financial Planning and Available Resources

A key component of asset management is demonstrating effective use and planning of available funds and resources. With resources and budgets shrinking it is even more important to demonstrate how transport assets are being managed and maintained ensuring that the transport network is sustainable for the longer term. Outlined further in this section is a summary of the resources that are available for delivery of asset management.



Local Transport Plan capital funding

The Maintenance block element of Local Transport Plan capital funding is used for:

- Carriageway renewal and preventative maintenance schemes – reconstruction resurfacing and overlay.
- Bridge renewal and upgrading works - concrete repairs, waterproofing, deck replacement
- Lighting column replacement
- And in LTP3 Traffic Signals and bus stops

The Local Transport Plan system in part recognises the significant maintenance backlogs which have accrued over time to the core assets except street lighting were there are significant risk issues associated with rapid deterioration. Warrington was successful at securing £45.5million of street lighting PFI credits in December 2009 however following CSR this option was withdrawn and hence alternative spend to save options are now being explored to deal with this failing asset group.

The following table sets out the Highways Maintenance Block allocations for the first 4 years of LTP3.

Maintenance Block Funding Allocation and distribution for LTP3					
	LTP2 Average	FINAL		INDICATIVE	
Block Allocations	2006 -11 £m	2011/12 £m	2012/13 £m	2013/14 £m	2014/15 £m
Roads	1.70	2.00	1.95	1.96	1.75
Bridges	1.00	0.80	0.75	0.76	0.65
Lighting	0.36*	0.36	0.36	0.36	0.35
Bus stops / Traffic signals**		0.20	0.20	0.2	0.19
Highways Capital Maintenance	3.06	3.36	3.25	3.27	2.94

* Specific lighting allocation not introduced until 2009.

** Bus stops and traffic signals not included in the maintenance block in LTP2

Revenue funding

An allocation is made from the Council's overall revenue budget, funded mainly by council tax but partly by government revenue support grant. It is used as follows on transport assets:

- Reactive maintenance treatments such as potholes, minor repairs and patching on carriageways.
- Preventative maintenance such as slurry sealing and surface dressing
- Bridge preventative maintenance – including concrete repairs, painting metalwork;
- Street lighting – bulk bulb clean and change, electrical testing, structural testing of columns, repairing accident damage.
- Safety maintenance work such as winter service, gully emptying, traffic sign and road marking maintenance.
- Environmental maintenance work such as grass cutting, weed spraying and tree maintenance.

There have been substantial pressures on the Council's revenue budget in recent years and despite inflation allowances being provided to go some way to meet the high inflation experienced in the construction industry, the service revenue budget has been under continuing pressure due to rising cost of oil and tarmac. The allocation of budgets to different activity areas and asset groups has been carried out on the basis of supporting the overall safety and demands associated with the asset base, as well as representing the essential reactive maintenance work that each asset group requires.

The 2011/12 figures in the following table illustrate the way in which the budget is typically allocated to deal with the maintenance demands on the asset. During 2009/10 and 2010/11 the severe winters impacted upon the allocated budgets with the carriageway potholes and patching and winter service costs increasing in region of 30 – 40%. This pressure was managed by reducing the revenue planned highway maintenance surfacing budgets. Inevitably this will have an affect on the long term condition of the roads.

Central government (dft) support in 2009/10 of £259k assisted with the emerging problems and the recent allocation of £555k in 2011/12 will also assist with tackling localised problems however, a longer term investment strategy, levels of service and lifecycle plans for the highway will need to be developed and agreed.

This will be developed during the first year of the TAMP for presentation to members in April 2012. Focus is currently on developing an investment strategy for the street lighting assets that will be presented to members in September 2011.

Revenue Funding	
Budget Area	2011/12 Allocated Revenue £,000
Carriageway Potholes and patching	682
Footway repairs	339
Planned highway maintenance surfacing and treatments	531
Winter service	469
Look of the Borough (potholes)	210
Signing, lining and fence repairs	114
Nameplates	14
Events	42
Traffic signal maintenance	417
Street lighting maintenance	593
Street lighting energy	1,345
Bridges and structures maintenance	94
Jetting and drainage repairs	156
Gully emptying	199
Flood risk / land drainage	224

Prudential capital borrowing

This form of investment is funded by the Council's borrowing, unsupported by government. Prudential borrowing is potentially available to support specific future investments and is already being explored to potentially support an increased programme of street lighting column replacement following withdrawal of PFI support.

A sum of £400,000 a year is currently allocated within the capital programme to support the ongoing maintenance needed to maintain the road infrastructure.

External funding

The pressure on council budgets underlines the importance of exploring external funding. Examples include:

- Sponsorship income from the sponsorship of roundabouts. This provided a net income of approximately £50,000 a year to the Council.

- Developer 'commuted sum' contributions to cover the extra future maintenance costs of unusual surfacing, lighting or other features of new development which will be adopted by the Council.
- Warrington was successful at securing £150,000 of **Salix funding** in early 2010/11 that was match funded with LTP monies to deliver reductions in energy consumption by replacing illuminated bollards and illuminated signs with LED and improved technology. Further investment of £268,000 was secured later in 2010/11 that allowed lanterns and components to be changed contributing further to energy efficiencies. Further Salix funding of £392,000 has been secured with additional improvements being delivered in 2011/12. The Salix funding stream has been invaluable and is awarded on a 'spend to save' principal, aimed at reducing energy costs and reducing Warrington's carbon emissions. The bids have been successful as a result of the work that was required in order to submit the PFI, therefore demonstrating that applying asset management principals can secure investment opportunities.
- Funding options are being explored to look at the medium and longer term challenges with regard to managing not only the highway authority bridges but also the privately owned bridges that are crucial to the travelling public by all modes and to the economy of the Town and the region. There are a number of bridges in critical locations that could be identified as having heritage and conservation status including a transporter bridge that will be 100 years old in 2016. Options are being explored to identify match funding that could potentially ensure these bridges are improved thus contributing to longer term ambitions, the growth of the town and LTP3 objectives

The role of the TAMP in determining future funding levels

Future funding seems likely still to be heavily constrained, both for the highways service and for the Council as a whole. Within that constraint, the TAMP has three specific functions:

- To provide strong evidence base to help inform decisions on the allocation of funds to this service compared to others.
- To provide similar evidence for deciding the best split of funds within the service to maximise the fit with levels of service.
- To provide a strong evidence base that looks to support alternative funding options and build business cases for external funding.

The Value of Transport Assets in Warrington

Initial calculations of the gross replacement costs of the transport assets based on the Cifpa "Code of Practice on Transport Infrastructure Assets" values the transport assets of the order of £1.1 billion

The highway and transport infrastructure in Warrington is extensive, predominantly urban and comprises a varied network. It is a vital asset that is surrounded by a busy Motorway Network including the M6, M56 and M62. Warrington's transport network is often used by transient travellers and commuters particularly when the surrounding motorway network is under strain and especially during severe weather events.

Asset Gross Replacement Costs	
Gross replacement cost (GRC) estimate	Highway (Roads and Footways)
	£
	£971,699,860
Highway Asset Types:	Gross Replacement Cost (GRC) estimate of all assets
	£
	Highway (Roads and footways)
	Structures
	Lighting
	Traffic management
	Street furniture
Total	
	£1,086,538,710

Contained within the transport infrastructure are many individual components, features and attributes that are required to be managed and maintained all with a value and at a cost. The principals of asset management and valuation will identify the true value of the highway network and its assets across Warrington therefore assisting with budget priorities for the future.

Setting and Reviewing Levels of Service

What are Levels of Service (LoS)

Levels of service describe the quality of services provided by the asset for the benefit of the customers. Levels of service at a strategic level need to reflect in part the Council's own ambitions, aims and objectives. Warrington has five key ambitions which drive service priorities across the Council.

The condition of the asset has two elements. One is the perceived condition of the asset as "measured" by the customer and the other is the assessment of the condition by "engineering" measurement and analysis from network condition surveys carried out using precise survey and data capture rules to ensure consistency. The results of these surveys are less obvious to customers as they are expressed by numeric values and as National Indicators.

The setting of Levels of service for the highway network and transport assets has a fine balance. It is essential that the Levels of Service reflect customer and member expectation on one hand but need to be in line with the resources that are available to manage and maintain the asset on the other.

Development of Levels of Service and Service Delivery Aspirations

A critical part of setting and developing levels of service is the available funding, since aspirational levels of service will have to be compromised if there are insufficient funds to afford them.

Four dimensions for levels of service are used in this edition of the TAMP:

- Safety
- Availability
- Serviceability
- Condition

Measuring levels of service are a way in which a highway authority can determine whether or not it is meeting customer expectations and its statutory obligations in the delivery of its highway service. They enable the Highway Authority to:

- Document and measure the service provided
- Rationally evaluate service versus cost trade offs
- Determine if adequate focus is given to what is important to the customer
- Establish if operational activities actively support the achievement of strategic goals

The development of levels of service needs to meet a number of requirements albeit within resource constraints. These cover such things as legislative requirements, customer expectation, the Council's ambitions and best practice guidelines. These requirements guide the development of the levels of service and from those engineering standards and performance measures can be developed.

As the levels of service are developed and determined the Council's Highways Service will review and develop its asset maintenance policies, engineering standards and performance indicators that will underpin the delivery of the levels of service.

The development of levels of service will draw on the Council's Corporate Plan, Service Priorities, legislation, LTP objectives and local customer survey work. Warrington Borough Council has clear ambitions set out in its corporate plan which guide the setting of Service Priorities. Highway legislation is set out in various acts of Parliament and the Council has good information on customer priorities and their satisfaction levels. This information has been gathered from neighbourhood consultation events, National Highways and Transport, NHT, survey and the Highway Service Levels survey carried out by TRL and Ipsos Mori for the Department for Transport, DfT and the recent LTP consultation.

The Council has high service delivery aspirations but these have to be provided within the resources that the Council has available. For instance, the Council pre-treats approximately 28% of the highway network in advance of a forecast of freezing road conditions. Whilst it would be ideal to treat say all of the network it would be prohibitively expensive in terms of budget and physical resource. The approach taken is to balance risk against budget and resource.

Asset Condition

The national governments of the UK have monitored local authority performance in maintaining their road networks and assets through a range of performance indicators, known as National Indicators, (NI's). The Council's Highways Service undertakes a range of surveys and inspections on all core assets to ascertain and measure the condition of the highway network and associated assets such as street lighting and bridges. These surveys enable the Council to report to national government the required NI's for such things as road condition and bridge condition. The results can also be used locally to demonstrate effective investment or identify that an asset requires attention if performance outcomes dip.

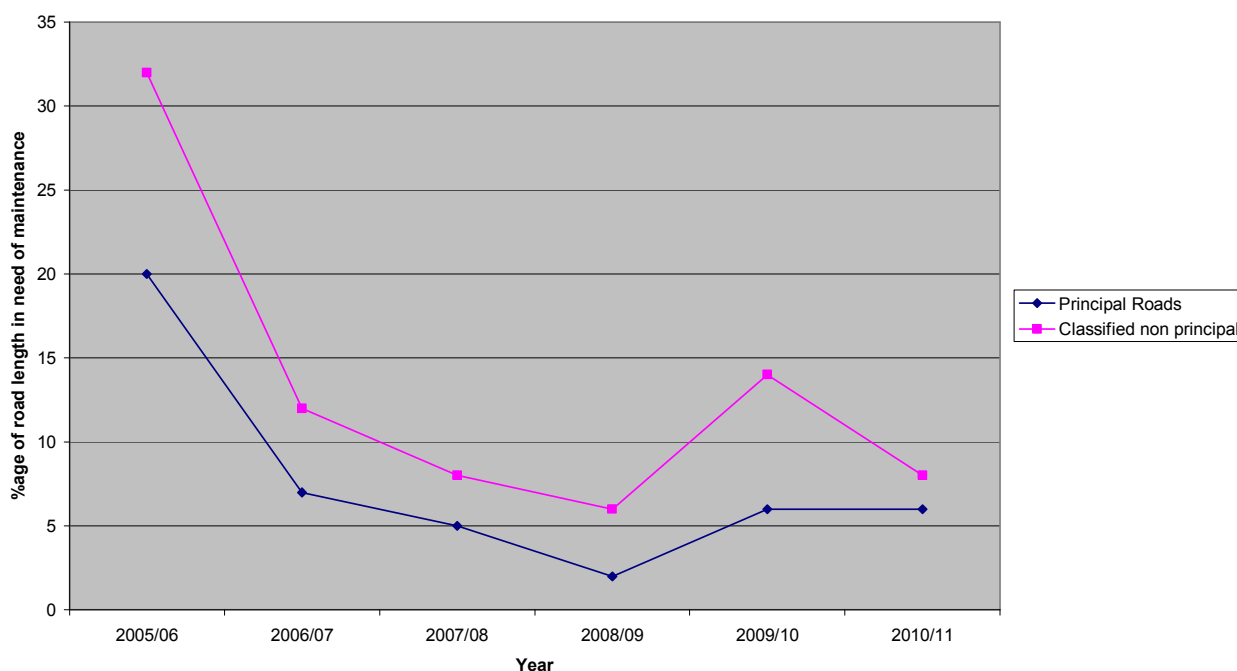
National Indicators and asset condition indicators in particular will be set and managed as determined by the LTP3.

Trends in highway condition indicators highlight that there has been an overall improvement in the length of roads in need of maintenance. However, the impact of the last two winters has yet to emerge in these figures.

Street lighting condition is a major concern hence the submission and approval of the PFI in 2009. The stock is aging and requires investment above and beyond that currently available.

The condition of the bridges is also considered to be aging and a full analysis of the costs of upgrading some of the aging bridges on key links and strategic routes is currently ongoing.

National Condition Indicators



Road condition indicators based on 2009/10 SCANNER survey results highlighted that the following lengths of road network on the Principal (NI169) and Non Principal (NI168) Classified road network were in need of maintenance

- NI169 – 7% (with 16km in red and 54km in the amber condition)
- NI168 – 4% (with 7km in red and 37km in amber condition)

Results of the most recent 2010/11 SCANNER surveys show a worsening trend in road condition due to the recent severe winters and general deterioration.

- NI169 – 8% (with 18km in red and 58km in the amber condition)
- NI168 – 6% (with 11km in red and 45km in amber condition)

The above also takes account of improvements to approximately 3km of the network during 2010/11 using LTP and capital funding totalling £2.4million.

Customer Expectation

Highway networks and assets are provided for the benefit of customers. The customer's view of the service being provided is, therefore, a highly important piece of information. The Council fully recognises the importance of, and the need to understand, customer perceptions of and expectations for the Council's road network and its assets, and use these to inform the way the network is managed and the services that are provided. Additionally the Council needs to understand the language used by customers to describe the network assets and the service expected.

The Council's highway service typically uses technical and engineering terms with respect to the highway and transport assets, but these may not be meaningful to many customers. The highways service needs to establish a 'common language' that describes network performance and is meaningful to both the customers and the highways service.

To be able to gauge customers' views and requirements of the highway network and the service provided the Council takes part in the NHT survey, conducts various neighbourhood consultations, carries out various Citizen's Panel surveys and draws on the DfT's national Highway Service Levels survey. The Council is using the results from these surveys to inform the development of levels of service and standards. The customers' perception of the highway network and the service provided is their reality. Whilst the Council understands that there is the ever present pressure on the resources available to it, how these are utilised for the best return across all the services the Council provides is what will be measured.

In 2008/09 the Authority agreed a 'Look of the Borough' programme that has also seen an additional £600k invested in the roads over three years through its medium term financial plan. This was developed and agreed as a result of customer and member budget consultation exercise that identified that repairing more potholes was a priority for customers. This funding has therefore assisted with the growing issue of more pothole repairs being identified and to address public concerns. The Look of the Borough programme also contained an additional £350k funding to improve gully maintenance and £350k to increase perceptions of safety by undertaking locally agreed environmental hot spot improvements all of which contribute to a range of other LTP and asset management objectives including active travel and safety and security. This is now built into core service delivery due to the success of the programme.

Gap Analysis

A gap analysis compares current and desired practice and service delivery and quantifies the activities required to change current practice to desired practice. The analysis should consider:

- Gap - What are the differences between current and desired practice?
- Cost - What are the costs of closing the gaps?
- Benefit - How will the proposed changes benefit the customer?
- Priorities - Which items are most crucial to improving service delivery?
- Resources - Can resources be made available to action the desired changes?

There are a number of ways of carrying out a gap analysis and representing the results. A gap analysis focuses on identifying the important areas and making sure that they are given priority by considering affordability and benefit.

An in depth review of the competing requirements will be carried out during the delivery of the first edition TAMP to identify priorities in terms of legislative requirements, LTP drivers and customer satisfaction levels. This will enable the Council to put together future options for service level provision from say a legislative minimum to that of a top performing authority with current best practice. The review will take account of current performance, customer satisfaction and the cost of change.

This review will be undertaken during the next 3 years focusing on Street Lighting and Road Asset Strategies during 2011/12 with Bridges assets being reviewed for presentation in 2012/13.

For the physical assets and their components lifecycle plans need to be developed. These would document the rationale for the selection of various work options to address the performance gap which would be needed to improve the condition.

For services, such as verge maintenance or winter gritting, where demand aspirations may not be being met any gap analysis would look at the service provided and may have to recognise that a perception gap exists which could be closed or at least narrowed through better communication with customers.

Implementation Plans

The council's highway service has taken an "Asset Management" approach to its maintenance of the highway for a number of years. The service has recognised that the "worst first" does not give effective value for money and has carried out preventative maintenance treatments to roads and footways to extend the life of those assets in a cost effective manner. This approach can be likened to painting the windows on houses at intervals to keep them in good condition and not let them fall into such a state as to need replacing more frequently at higher cost.

The highway network needs maintaining in a similar manner albeit roads wear out through use by heavy vehicles through a fatigue failure mechanism but can also be affected by adverse weather. Roads and assets need more in depth maintenance interventions at intervals to remediate the fatigue deterioration. Asset condition surveys have been carried out on an annual basis to be able to report the highway, street lighting and bridge condition and deterioration to government and to assist in the maintenance and management of the transport assets.

To implement asset management further the highways service will need to review current procedures, data held and systems used to manage assets and better inform longer term implementation plans. The review will need to consider such issues as:

- How asset information is made available
- How will political influences be catered for
- Budget setting
- Best economic solutions
- Project prioritisation

Key Users and Stakeholders of the TAMP

The key users of the TAMP are the Members, Service Management and operations teams, planning and delivery, responsible for management of the network and delivery of work on the ground.

Many stakeholders will have an interest in the TAMP as the management and maintenance will affect their every day lives and businesses. The Institution of Civil Engineers identified 13 customer groupings and their requirements in their 1994 publication "Managing the Highway Network. These are set out below:

Residents	Shoppers
Retailers	School Children
Business Owners	Tourists
Utility Companies	Freight, Commerce and Strategic Transport
Commuters	Emergency Vehicles
Business Travellers	Public Transport Operators
Leisure and Social Activities	

Many of these stakeholders have similar requirements of the highway network which centre on safe roads and reliable journeys.

Reviewing Service Levels

Levels of Service need to be kept under review but not changed too frequently because it is important to establish trends in the way the asset is performing. Performance indicators are used to measure performance which relate back to levels of service. Customer surveys provide information on the wider perceived view of performance of the highways assets and performance of the organisation. Demands on the network and assets change, due to new developments, which in turn affect its performance.

- Customer perception can be affected by the organisation's ability to communicate
- Delivery on the network relates in part to the organisation's management processes, interventions and optimisation
- Budget which ultimately sets the amount of work that can be carried out.

Asset Management Strategy

The asset management strategy draws on the analysis of data such as condition indicators and budgets to show:

- The way we will budget expenditure so as to provide the best overall maintenance of all our assets, judged against desirable levels of service and
- The techniques we use to ensure that we manage the different assets in the most cost-effective way, and how we will improve those.

In this first edition of the TAMP the strategy covers two main areas:

- The optimum allocation of the capital budgets available between the asset categories as detailed in Section 6.
- The main areas for further investigation and analysis in taking forward investment strategies for managing the core asset group as detailed in Section 13 and covered in the action plans.

This is intended to provide the background for decisions on future spending which will need to be made once the implications of the government's comprehensive spending review are clear and investment opportunities explored in more detail.

Strategy to optimise performance against levels of service aspirations

The analyses of condition data and budgets show how far we are able at present to meet our aspirations for levels of service for the core asset groups.

Taking the four levels of service dimensions in turn:

Safety

Roads - our performance information has developed during the last 12 months as a result of the highway maintenance review. Performance is being further developed to ensure quality and speed of repairs is a priority. Defence and repudiation of claims remains robust hence whilst the condition may be suffering the desired standard for safety is considered to be achieved.

Lighting – a risk approach to lighting assets is being undertaken with electrical and structural testing being a priority for this asset due to its aging condition. All safety inspections are on schedule. Whilst components are being improved in the form of lanterns the age of the columns still remains a concern. It is likely that columns will have to be removed for safety reasons if investment is delayed in the short to medium term.

Bridges – regular inspections of the bridges assets are undertaken annually with general and principal inspections all up to date. The asset group is considered safe.

Availability

Roads - with our action plan to meet our responsibilities under the Traffic Management Act 2004 now in place and building on previous good practice on managing congestion, there is reasonable confidence that we are meeting customer aspirations for availability.

Lighting – as highlighted availability of lighting will be a pressure particularly due to the age and condition but also due to increasing energy and carbon costs. Salix bids to improve lanterns and lighting standards that also improve the carbon footprint are assisting with this.

Bridges – Bridges have been improved on those critical routes to ensure availability of the network. Further work is needed with regard to the bridges that are owned by third parties in particular those that cross the Manchester ship canal and river Mersey. Some of these bridges are critical to the availability of our network and are likely to need investment in the medium term. An assessment of the future investment needed for these bridges will be undertaken during this TAMP period.

Serviceability

Roads - we believe that we are meeting most customer aspirations for serviceability but the lack of specific customer research data means that we cannot yet be confident of this. NHT surveys conducted in 2010 will be replicated in 2011 to assess trends.

Lighting – the ongoing service of street lights remain a priority for residents. An investment strategy is currently being developed and will be presented to members in September 2011 that should support the improvement in serviceability of this asset group.

Bridges – as for availability an assessment of future investment will be considered during this first TAMP.

Condition

Roads - the provisional allocations notified by the Department for Transport for the third Local Transport Plan will allow Warrington to manage condition it is predicted that this level of investment alone will result in at best a steady state but more likely be a managed decline of condition during the first three years of the LTP3. The winters have had an impact and further analysis of this impact will be undertaken in 2011/12 to enable an investment strategy for the roads to be presented to members by April 2012.

The reduction in overall funding allocations as a result of the CSR coupled with the impact that two severe winters have had has required us to revise our road condition targets. Whilst there has been much welcomed government support in 2010/11 and for 2011/12 as a result of the winters this support will only assist with filling the increased number of defects and is not likely to assist with the longer term decline in condition and deterioration of the roads.

Lighting – The DfT allocations for street lighting based on assessments undertaken for the PFI are insufficient to improve condition of the stock. An alternative investment

strategy for street lighting is being prepared for presentation to members in September 2011.

Bridges – DfT allocations for bridges is sufficient to improve stock levels on a priority basis in the short term. Further analysis of medium and long term condition and improvements will be undertaken in 2012/13.

Strategy to reduce Whole Life Costs

Whole life costs include not only the direct costs of works, design and supervision and surveys, but also the indirect costs caused by sub-optimal maintenance regimes, including inconvenience to users, environmental impacts and third party claims. The main factors which will affect the whole life cost of an individual carriageway are:

- Type and quality of construction and procurement
- Degree and type of damage and degradation
- Type and volume of traffic
- Speed and quality of response to damage and degradation
- Timing of intervention and quality of medium and long term treatments and replacement options

At present the links between these have not been fully quantified. This is an important area for research and progress nationally will be used to inform future editions of the TAMP. This will be a significant exercise, involving analysis of renewals, preventative work and reactive maintenance procedures.

Historically, the Council's strategy for maintaining carriageways has been:

- to specify a high standard of initial construction
- to undertake timely reactive maintenance in order to keep carriageways in a safe condition and prevent short term deterioration,
- to have a programme of preventative maintenance to prevent deterioration of the surface and lower layers and to extend the life of the carriageway at minimum cost
- to resurface carriageways (using recycling techniques where possible) when reactive and preventative work is uneconomic
- to renew carriageways which are uneconomic to treat by other means.

This strategy is based on good practice but there has been no rigorous financial evaluation of the approach or testing of alternatives, for example the timing of the various interventions. The strategy is accepted as best practice for this version of the TAMP but further investigation of alternatives will be undertaken for the second edition.

Options and targets within the management strategy

In future editions of the TAMP the need to analyse in more detail the impact of revenue spending on condition, and also assess whether other aspects of conditions of service need similar consideration. It should be noted that the causal link between capital spend and resulting condition is complicated and not necessarily fully explained by the headline figures; this is another area for further investigation in future editions of the TAMP.

Performance Gaps

A performance gap is the gap between current performance and desired performance. Highway Maintenance is a mix of asset maintenance, keeping to a desired condition and provision of service such as winter salting and grass cutting of highway verges.

Performance gaps would be:

- Assets: current condition is below desired condition
- Service: demand aspirations are not being met

Performance gaps can exist for a number of reasons:

- High customer expectation which does not match management perception of what is provided
- Management perception of service quality does not match what is actually being provided
- Actual performance or quality does not match that set out in policies, standards and specifications
- Inadequate communication with customers which results in them having a skewed view of the view of the service delivered.

Warrington needs to review and undertake further surveys to assess customer feedback that will help understand the performance gaps and reasons for them from a customer perspective. Performance monitoring, NI's and local indicators need to be developed to see how actual performance matches up with desired performance.

Warrington can use such things as the National Highways and Transport Network Survey that we take part in, to assess what our customers view of the highway maintenance service provided and how we compare with comparator authorities. National and local reporting of various levels of performance indicators will inform how we are performing against our own performance targets.

Climate Change

In 2007, the Intergovernmental Panel on Climate Change (IPCC), the world's most authoritative body on climate change, concluded that most of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic (man-made) greenhouse gas concentrations.

Based on information from UK Climate Projections 09, UKCP09, are that temperatures will rise with warming greater in the summer than in winter. There is little change in the annual amount of precipitation but it is likely that there will be more in the winter with consequent drier summers. Sea levels are predicted to rise more in the south than the north of the UK.

The effects of climate change on the highway network need to be considered and a Climate Change Adaption Strategy adopted. This should be based on risk and would need to consider such things as vulnerabilities of the network, adequacy of drainage systems, material specifications and methods.

Service provision for routine maintenance activities, such as grass cutting, tree maintenance and gully emptying will need to be reviewed. Works processes also need to be looked at with the aim of reducing CO2 emissions.

The Council has governance for managing Climate Change including a Climate Change Board and an Adaptation Plan that coordinate the approach to climate change across the Council. The development of the TAMP will take account of these emerging climate change requirements.

Delivery Options

With demand on the Council's resources being greater than ever and increasing it is important that the most cost effective service delivery is in place. There have been a number of innovations in service delivery across the country.

One notable example is the collaboration of a number of councils in the Midlands. The Midland Highway Alliance is a collaboration of thirteen councils and the Highways Agency who share a common goal, to improve performance and make efficiency savings in the delivery of highway services by working together.

Warrington is in contact with a number of highway authorities in the region to look at various collaboration options with a view to making efficiency savings across a number of areas including future procurement and tendering of works and skills sharing opportunities.

Decision Making

An improvement in decision making is one of the key benefits of asset management. That is not to say that current decision making is flawed but it is having a data led evidence based system which will give the council the confidence in its decisions and its use of public funds.

Optimisation is linked to budgets and risk which is about whole life costing, deterioration modelling and lifecycle planning.

Optimisation

Optimisation is the process of identifying the optimal regime for the operation and maintenance of the network and is carried out at both asset and network levels in terms of cost and service provision.

Future Decision Making and Optimisation

The national framework for asset management refers to two key aspects of decision-making. These are optimisation and risk management. The national guidance also indicates how budget considerations can be taken into account. This section considers what Warrington needs to be doing in order to apply optimisation as part of our future decision-making.

Optimisation has been defined as a process for identifying the optimal or most appropriate renewal regime. It is necessary to go through an optimisation analysis process to identify the most cost-effective means of managing or responding to the ongoing demands, which are placed on our highway asset. The framework makes it clear that optimisation is an advanced asset management technique and before it can be successfully applied both basic data collection and analysis processes need to be in place.

Optimisation embraces several key activities and these are set down in the table below:

Predictive maintenance involves the anticipation of future failures of our asset, and as part of this process to consider why and how failure will occur as well as the engineering and financial consequence of any failure. To some extent this is practiced already by choosing the optimum time to surface dress in order to preserve our carriageway asset, or by painting steel lighting columns, bridge parapets etc. to protect and extend the life of these assets.

Optimisation is a key part of asset management, which can be aided by the use of whole life costing and deterioration modelling. Warrington will need to develop these, as well as making further use of decision conferencing, which provides benefits when the competing demands of options to be evaluated are much less clear. An example of this would be to compare the relative merits of a lighting replacement scheme against replacing a section of footway.

At a basic level, the framework suggests that authorities should prioritise their options based on benefit and cost. This provides an elementary cost benefit calculation to highlight beneficial options in ranked order which may be further prioritised reflected by the elements of optimisation, shown in the table above. It is unlikely that this short term approach would be sufficiently robust to enable us to compare priorities or projects on different asset groups e.g. street lighting scheme compared to a traffic calming scheme.

Decision Making Processes

Until systems have been sufficiently developed decisions on investment and spend on asset maintenance will continue to be based on condition surveys and delivered within available budgets.

The LTP consultation in part determined a notional allocation for maintenance of assets from this funding source however, it is likely that much more investment would be needed to maintain and renew all the assets to their optimal condition. For example the recent PFI analysis identified that Warrington needed £45million capital investment to replace its deteriorating stock.

Based on road condition out turns Warrington would need £15million to resurface and improve the roads to a top quartile high performing standard based on national indicator out turns only. To eliminate the backlog and replace all deteriorated sections and fix all potholes there would need to be an investment of the order of £47million.

It is proposed to identify optimal funding options for the core asset groups once levels of service and costs of delivering appropriate levels of service are agreed. Delivery of agreed lifecycle plans, investment strategies and programmes of work will be presented annually to members.

Risk Management

The Council has a corporate risk policy designed to manage risks in a structured manner. All change processes are risk assessed, and action plans prepared for risks of relatively high likelihood and high impact. Similar analysis is carried out for risks associated with continuing service delivery. The main processes for transport asset management are therefore already covered by risk analyses, documented in the Transportation Department's service plans and local action plans.

The key risk is that the department will not be able to make available sufficient resources to ensure that all the investigatory and improvement work is undertaken. That risk will be mitigated by ensuring that the activity is prioritised in the appropriate service action plans for 2011/12 and beyond.

The street lighting asset group has been identified as the high risk asset group due to its condition and age profile. Options for investment are being explored and will be presented to members for consideration during the first year of the TAMP.

The bridges asset group is also an aging asset but further work is needed to identify the risk factors of this asset group. An analysis of bridge locations and condition will be undertaken in the first year of the TAMP to allow prioritisation of resources.

The roads and footways are the most valuable of the asset groups and is a vast asset. Risks are being managed through effective inspection and surveys. Warrington's statutory defence remains high with minimal claims being awarded against the Authority. That said there is no doubting that the road has deteriorated as a result of the recent winters and public satisfaction is low. This is a national issue and the risk to the asset deteriorating further without future investment remains high. Investment strategies will be explored during the delivery period of this first TAMP.

Reporting and Monitoring

Development and updating of the TAMP

There are a number of other areas of work to complete before the TAMP can be considered a fully comprehensive document. It is intended that as many as possible of these areas will be completed over the next 3 years and will be included in the second edition TAMP to be published in 2014.

Beyond this there will be further developments in data analysis and inventory collection needed for WGA reporting in future years, as well as inevitable changes in the availability of funding. These will require further editions of the TAMP to be produced in later years.

The responsibility for co-ordinating this work will lie with the department's Transportation Division and the Public Realm Service though other groups across the directorate and department will need to contribute in a process defined in the transportation service plan. The elements of this can be divided into those required for project planning, outputs going into the LTP and specific development of the TAMP with outputs going into later editions of TAMP.

Updating of the TAMP

The updating of the TAMP will be on a 3 year cycle. Lifecycle plans and annual works programmes will be updated annually following budget setting process and analysis of condition assessments and survey results for the assets. If government funding stabilises, it should not be necessary to update the document fully each year however, events such as severe winters and major budget pressures may result in an updated edition being produced within the 3 year life of the plan.

Performance Monitoring

The department has a full system for performance monitoring, much of which applies to asset management practices. The department's performance management systems are updated monthly or quarterly as required and a performance board meets quarterly to monitor all the commitments in the departmental and corporate service plans.

The Local Transport Plan sets out the specific indicators for asset condition required by government, and these are also detailed in the lifecycle plans referred to in this document. These cover not only carriageways and footways but also the 'bridge condition indicators' and the assessment system used for street lights that are effective in managing asset performance and condition.

The performance of contractors who repair and assist in the management of the assets will form part of the performance framework. The close working arrangement between Enterprise plc and the council is intended to ensure high quality standards whilst at the same time delivering continued improvements in efficiency. A management board for the delivery of the term maintenance contract will report to the department's management team and will be answerable for the cost-effectiveness and delivery performance of the contract. Reports will then be presented to members at appropriate and agreed forums.

These arrangements provide a strong background for performance management of the TAMP. In addition, to ensure that the full potential of this document to improve performance is exploited, a new programme board will be established. The board will be charged with:

- Ensuring that the development activities necessary to produce succeeding versions of the TAMP are carried out, particularly the strengthening of asset condition and customer opinion data and the continuous review of best practice maintenance techniques.
- Ensuring that the annual process of analysis is carried out, leading to the reallocation of capital and revenue budgets for the following year.
- Ensuring that longer term financial planning is carried out, in relation to the Council's three-year programme and succeeding Local Transport Plans.

Lifecycle Plans and Service Delivery

Lifecycle Planning

Lifecycle planning is about making the right investment at the right time to ensure that the asset delivers the required level of service over its expected life at minimum cost. Effective lifecycle planning requires considerable asset knowledge which centres on inventory and condition. Without this information it will be difficult for lifecycle plans to model the optimum strategy for the maintenance and renewal of the asset.

Lifecycle planning covers the life of an asset from cradle to grave and can be broken down as follows:

- Creation
- Maintain and operate
- Renewal or replacement
- Upgrading
- Disposal or decommission

A lifecycle plan needs to set out how an asset will be managed and identify current and future maintenance needs with links to cost and funding. This then needs to link to investment strategies and plans for the asset to meet its desired level of service.

There are some key issues for Warrington in this area as lifecycle planning is not fully integrated with current maintenance planning procedures. There is limited asset information in some areas of the core asset groups including, footways, signs, drainage. However there is good asset information in others such as carriageways, street lighting and traffic signals.

Warrington currently plans maintenance works using the principles of asset management to give the most effective maintenance programmes. Data from the network condition surveys are used to inform the annual maintenance programmes together with local knowledge also applied so that intervention with the appropriate treatment at the appropriate stage in the assets life is maximised.

Lifecycle Plans

The lifecycle plans for the four main asset groups will be developed in more detail during the first two years of this first TAMP and will also include investment strategies for those assets.

Each plan and strategy will detail:

- The levels of service we wish the asset to meet
- Evidence on the extent of the asset and its characteristics
- Evidence on its present condition, and how that is measured
- The present valuation of the asset
- An assessment of future changes in demand for the asset
- The options available for treatment of the asset

The lifecycle plans and investment strategies cannot be totally freestanding plans because the level of resource provided for one asset will potentially affect the funding available for others and this will be considered.

Summary


For the core asset groups there is the need to identify the level of investment needed to bring the condition of the assets to a reasonable standard.

The priorities identified within this TAMP identify that street lighting and road condition are high risk and high priority areas. The bridges and footway assets however, need further data gathering and analysis to understand and present condition and investment options in order to protect the long term life of these asset groups.

Securing the required investment will be a challenge. The action plans contained within the plan identify how Warrington will continue to improve the management and maintenance of assets over the coming 3 years.

Future editions of the TAMP together with annual review and monitoring should ensure that the right decisions on maintenance and investment are taken.

Policies and Actions for the LTP - Asset Management and the TAMP

Warrington Borough Council will ...	CO ₂	One Warrington Ambitions			
AM1: Ensure that the categorisation and classification of the transport network and associated assets on strategic, primary and freight routes supports the transport objectives for the borough.					
AM2: Seek to maintain and improve transport assets on strategic, primary and freight networks in accordance with the Warrington Transport Asset Management Plan (TAMP).					
AM3: Ensure that the Levels of Service (LoS) and Lifecycle plans as agreed in the TAMP reflect customer and member expectations that can be met with the likely available resources.					
AM4: In determining asset management priorities, consider the role of well maintained transport assets in supporting economic growth and reducing greenhouse gas emissions in Warrington.					
AM5: Seek opportunities in maintaining and improving transport assets to reduce future negative impacts of climate change on asset condition.					
AM6: Seek opportunities to reduce the amount of greenhouse gases produced during maintaining and improving transport assets.					
AM7: Seek to support improved safety, security and quality of life through the maintenance and improvement of transport assets.					

Short Term Actions	Longer Term Actions
<ul style="list-style-type: none"> • Identify and review the network hierarchies, classifications and highway links which together comprise the strategic, primary and freight routes for the borough. • Develop further the Transport Asset Management Plan (TAMP) and establish agreed Levels of Service (LoS) and Lifecycle Plans for the management and maintenance of the core range of transport assets. • Assess the level and quality of transport asset inventory and condition data and agree a data collection and management policy which meets the delivery needs of the Transport Asset Management Plan (TAMP). • Ensure that asset inventory and data is gathered and updated in robust and sufficient detail to allow valuation and depreciation of transport assets to be undertaken in line with CIPFA and Whole of Government Accounting (WGA) requirements • On an annual basis, review and update operational delivery and implementation plans as covered by the Transport Asset Management Plan (TAMP). 	<ul style="list-style-type: none"> • Review and update the Transport Asset Management Plan (TAMP) strategy, aims and objectives every 3 years in accordance with best practice or as required in light of annual spending review requirements or emerging policy, practice and legislation that materially alters the delivery of the plan. • Review and develop appropriate structural maintenance and surfacing policies and link to planning and development policies to take account of climate change and sustainability requirements. • Develop further the Transport Asset Management Plan (TAMP) so that it takes account of and is integrated with Surface Water Management Plans and Property Asset Management Plan priorities.

The TAMP development actions are as follows:

TAMP development area	Timescale
Establish TAMP programme board to manage development and delivery of transport asset management planning	September 2011
Present Lifecycle plans, Levels of Service and investment strategy for Street Lighting for members approval	September 2011
Produce project plan for gathering appropriate data on remaining asset categories and including them in the TAMP.	October 2011
Detail strategy for managing and making asset data and information available	December 2011
Complete asset inventory collection and lifecycle planning for remaining assets	March 2012
Develop techniques for 3 – 5 year maintenance planning	March 2012
Undertake a more quantified analysis of customer views on the serviceability and levels of service dimension for each asset category, based on NHT and specific customer surveys	April 2012
Present Lifecycle plans, Levels of Service and Investment strategy for Roads and footways for members approval	April 2012
More detailed examination of asset management strategies, including: Use of improved condition data More investigation of service lives for different treatments Research into treatment options for paved and flagged footways Investigating the case for replacement of lighting columns Dimming, remote monitoring and LED technology on street lighting Prioritisation of bridge and structures relative to the use of the network	April 2012
Refine approach to asset valuation and establish clearer links between valuation and lifecycle planning	March 2013
Ensure full compatibility with corporate asset management plan	March 2013
Review delivery measures covering the safety, availability and serviceability dimensions of levels of service	April 2013
Present Lifecycle plans, Levels of Service and investment strategy for Bridges and structures for members approval	April 2013
Assess in more detail the relationship of revenue budget maintenance spending to the management strategy for each asset group	March 2014

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