

Transport Asset Management in Greater Manchester:

Progress Update

Part 1

1. Introduction

This is a joint report of the ten Greater Manchester Local Highway Authorities ((hereafter referred to as GMLHAs), Greater Manchester Passenger Transport Executive (GMPTE), Greater Manchester Urban Traffic Control (GMUTC) and Greater Manchester Transportation Unit (GMTU). The report details progress with developing respective Transport Asset Management Plans (TAMPs), some of the key outcomes to date deriving from the implementation of asset management practices through the first years of LTP2 and the outlook to 2010/11 and beyond.

Each of the above organisations has responsibility for managing public infrastructure assets or providing support for infrastructure asset management. Accordingly, individual GMLHAs, GMPTE and GMUTC are developing TAMPs tailored to the infrastructure within their respective portfolios.

However, from the outset of the development of the second Greater Manchester Local Transport Plan (GMLTP2) the Greater Manchester Authorities and other partner organisations have placed an emphasis on ensuring joint approaches where feasible and where it can be demonstrated that this will provide value for money.

2. Focus of the document

The above emphasis is reflected in this report where we have also sought to provide a joint Greater Manchester position statement and identify common issues, challenges and future development work in **Part 1**. Joint working groups for individual areas have contributed to development and sharing of good practice and thus many of the themes in this document will be applicable to all authorities.

Progress updates from individual organisations are therefore presented in the tables in **Part 2**, although in keeping with the joint approach we have sought to adopt a common template with which to analyse key gaps in asset management practice.

The GM Authorities welcome the recent investment package put forward by Government for further development of TAMPs and believe that it should achieve a balance between ensuring a consistent base from which to develop national practice and the need to promote innovative practice. Whilst this report outlines some of the themes actions for further development of our TAMPs the GM Authorities have yet to finalise the content of bids for both elements of the funding package and therefore details are not included here.

3. Background

Through the second Greater Manchester Local Transport Plan all participating Authorities have expressed commitment to developing asset management plans for their respective transport infrastructure. This emerged from a background of recommendations by Government in its Guidance on the Preparation of the Second

Round of Local Transport Plans (2004), and was further supported by the publication of the Framework for Highways Asset Management (CSS, 2004).

Through the development of their TAMPs the GM Authorities are seeking to further enhance their existing asset management practices with a robust evidence base to guide the implementation of their long term strategic goals contained within the GMLTP2, the GM Maintenance Strategy and individual Council strategies.

In the intervening period the GM Local Highway Authorities have also either adopted or have developed action plans for implementation of the recommendations within the Codes of Practice for Highways Maintenance Management, Management of Highway Structures and Highways Lighting. All of these Codes of Practice make explicit mention of the need to develop TAMPs and TAMPs are a further prerequisite for the implementation of many other of the recommendations.

All GMLHAs have also produced individual Rights of Way Improvement Plans (ROWIPs) that provide a framework of aspirations and service levels for the Rights of Way network within which the TAMPs are being developed.

4. Strategic objectives for the management of transport infrastructure in Greater Manchester

The GMLTP2 recognises the need for a long term view of the priorities for maintenance of the existing transport network and the need for rigour in identifying the options that provide best value for money and economic sustainability (minimising whole life costs). As such TAMPs will provide a vital role in informing the appraisal of both maintenance and integrated transport options for the delivery of LTP objectives.

The Greater Manchester Maintenance Strategy provides a joint vision for maintenance of the entirety of the County's transport infrastructure and clarifies the links between maintenance and higher level integrated transport objectives expressed in the GMLTP2.

The vision of the Maintenance Strategy is to reverse the historical trend of deterioration of Greater Manchester's transport infrastructure and provide a network that is safe, fit for purpose, attractive and sustainable both environmentally and financially.

In doing so the strategy makes clear the need to prioritise maintenance that will contribute to:

- Improving safety - minimising the risks to the public on the transport network
- Reducing congestion - enabling efficient flow of traffic through timely maintenance and minimising disruption during works taking into account the obligations under the TMA 2004.
- Improving accessibility – prioritising infrastructure (including public transport infrastructure) that improves connectivity between communities and key services and employment areas, thus supporting economic growth and social inclusion
- Improving environmental performance of the network – reducing emissions of greenhouse gases and local pollutants through design and construction management, enhancing biodiversity and maximising reuse and recycling of materials.

- Improving the economic sustainability of the network – through longer term forecasting of investment needs on the basis of lifecycle costs and managing environmental risks (with particular reference to climate change adaptation strategies).

These principles form the framework within which GM Authorities are developing their TAMPs.

5. Summary of progress with development of TAMPs over the period 2006/07-2007/08

5.1 Outline

This section draws out some of the key themes from the individual authorities' progress reports. **Section 6.2** focuses on the development of TAMP **processes** and provides a summary of progress with key elements of the TAMP across Greater Manchester. **Section 6.3** highlights **outcomes** that are attributable to the development of asset management approaches in Greater Manchester.

5.2 Development of TAMP processes

In this section, where appropriate, progress is summarised for all 10 GMHLAs under the following categories:

1. **Not started** – either with no specific plans to implement or currently considering whether or not to develop a particular element
2. **Plan for development** – specific plan to develop an element within annual or longer term business plans or undertaken for some but not all service areas
3. **Recently developed** – plans recently written or new process introduced in first stages
4. **Established but not fully integrated** – process or plan has been in place for some time but not fully understood or integrated with other planning processes within the service or at Corporate level
5. **Established and fully embedded** – TAMP element fully integrated with service or corporate processes

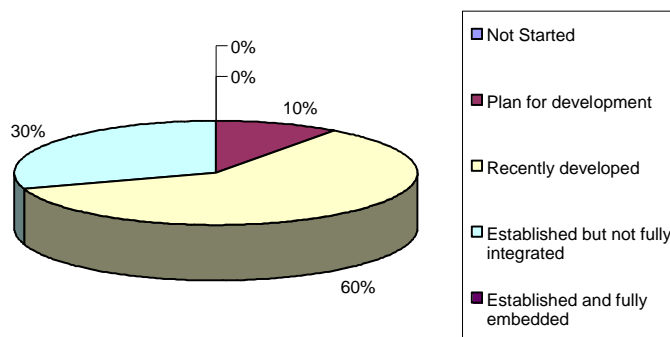
These are obviously subjective judgements and it is important to recognise that even where processes are stated to be fully established this does not mean that there is not scope for continued improvement.

5.2.1 Overall TAMP development

Currently 3 Local Authorities (Oldham, Rochdale and Tameside MBCs) have approved TAMPs in place. In addition the GMUTC have produced an asset management plan for the physical assets within the County's traffic management system and the GMTU have a well established inventory system for automatic counters. All of the remaining 7 Local Authorities and the GMPTE have completed draft TAMPs, with a view to continuing practical development of key elements.

The figure below demonstrates that despite the fact that most Authorities have yet to finalise a TAMP document, asset management practices are being developed and are influencing planning processes.

Figure 1: Overall development of TAMPs

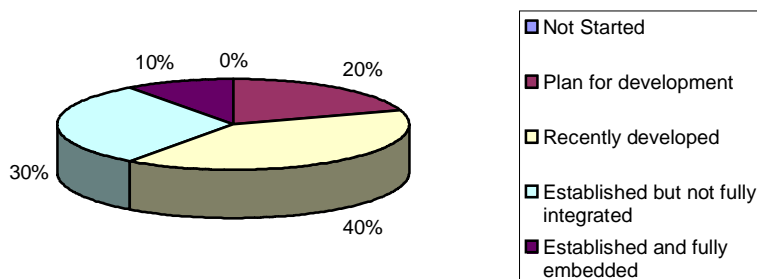


Relative progress for key infrastructure types

Roads and pavements

Most authorities have reported good overall progress with developing asset management practices for highways as per figure 2.

Figure 2: Progress with roads and pavements asset management

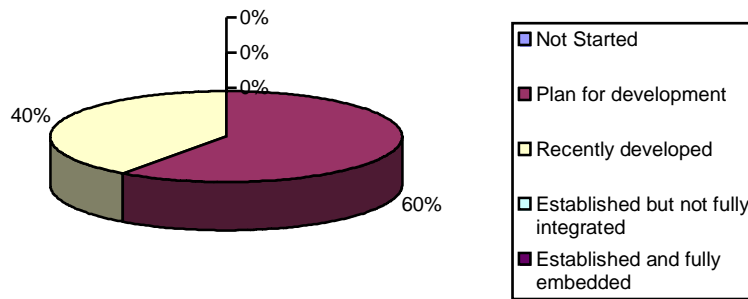


Much of the strength of roads and pavement asset management approaches has been derived from joint working through the GMADE HAMP sub-group. Particular areas of development are the identification of a consistent set of local performance indicators for the county as well as a common approach to whole life cost options appraisal, deterioration modelling and valuation (see below).

Highways Structures

Figure 3 overleaf shows that progress has been less marked with highways structures elements. All authorities are able to report significant progress in the development of their Bridge Management Systems and have integrated the Bridge Condition Indicator within their scheme prioritisation process.

However, particular difficulties have been encountered with both the the longer term financial planning functions and the development of the performance management framework. These elements correspond with Milestone 2 and Milestone 3 actions within the Code of Practice for Management of Highways Structures and whilst Authorities are committed to the principles of these Milestones, there is still a lack of clarity over the most practicable and cost effective approach to achieving them.



The importance of implementing these elements is clear, at least if for no other reason to enable the integration of financial models for structures with those of the other asset groups. However, owing to the high degree of variability within structures stocks there is a greater challenge to develop meaningful lifecycle models and the costs of further data capture and development of Bridge Management Systems to enable this are very high by comparison to other infrastructure types. In order to strengthen the business case for implementing these actions further practical guidance and documented examples or practical and financial benefits are needed.

Similarly, there are considerable costs associated with developing the performance indicators as per existing guidance¹ and there is a lack of clarity over the according benefits of implementing this highly sophisticated approach.

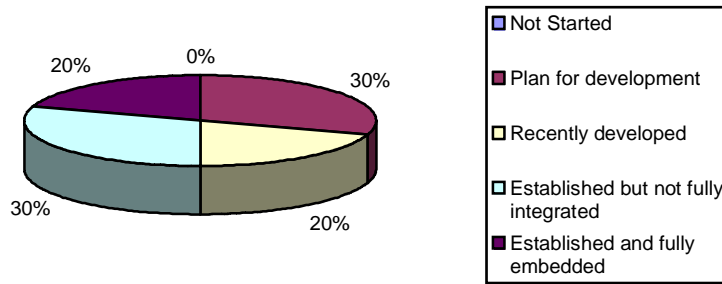
Street Lighting

Many authorities report that they have made the most progress with the street lighting and lit signs elements within their asset management plans as shown in Figure 4.

In some cases the asset management plans have been advanced as a result of or in preparation for the development of PFI business cases. Manchester City Council in particular has had a PFI in place for the management of their street lighting stock since 2001. In addition Oldham and Rochdale Councils have prepared a joint PFI business case for street lighting and Stockport has included street lighting within a PFI business case for the SEMMMS Relief Road scheme, which is currently awaiting a decision from Government.

¹ Performance Indicators for Highway Structures (2004) Report prepared by Atkins on behalf of Highways Agency and CSS Bridges Group

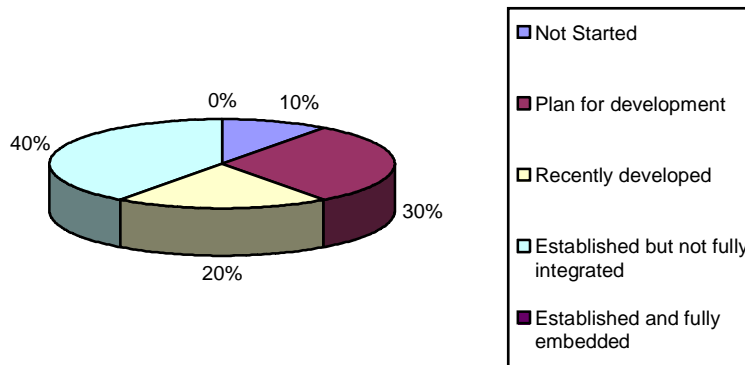
Figure 4 Progress with street lighting elements



Public Rights of Way

As figure 5 shows GMLHAs have reported significant progress with Rights of Way elements. All GMLHAs have produced Rights of Way Improvement Plans in 2007 which provide, to varying degrees, a service levels framework for further development of the TAMP. Oldham Council in particular has produced a 10 year plan for Rights of Way improvements.

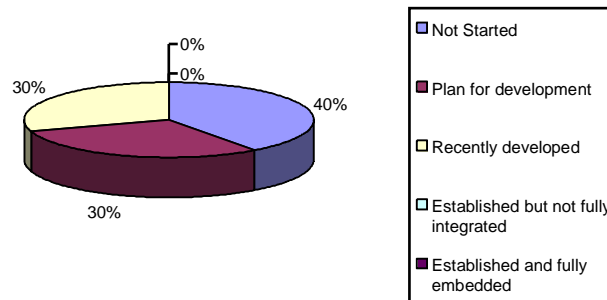
Figure 5 Progress with Rights of Way elements



Car Parks

Progress is least advanced with the development of car parking elements of the asset management plan, although for many Authorities these are included within corporate asset management plans.

Figure 6 Progress with car parking elements



Drainage

Considerable progress has been made with both data capture on gully location and condition as well as on flood hotspots. Stockport Council has used the Exactrack system on gully cleansing machines to produce an inventory of gullies. However, further work is required to identify associated drainage infrastructure such as soakaways and small culverts. This should also feed into future development of Surface Water Management Plans.

Traffic Signals

Traffic signal systems are managed and maintained on behalf of the 10 GMLHAs by the GMUTC within Manchester City Council. GMUTC have developed a draft asset management plan outlining steady state maintenance requirements. However, further work is required to align whole life cost options with the service levels frameworks within GMLHAs' TAMPs and Network Management Plans.

Bus Infrastructure

GMPTC have a corporate asset management plan for major buildings including bus stations although bus stops and shelters are dealt with under a separate maintenance regime. Further work is required to ensure that raised bus boarders are highlighted within GMLHAs TAMPs and align with GMPTC maintenance programmes for bus stops.

5.2.3 Service levels

Service level framework

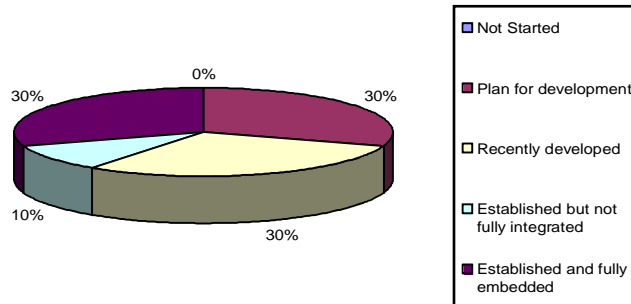
The development of policy linkages to the asset management service level framework has been a key area of development in the first two years of LTP2, and this has also been enabled by the GM Maintenance Strategy. As mentioned above, through reviewing the respective Codes of Practice Highways Maintenance Management ('Well-maintained Highways'), Management of Highway Structures and Highway Lighting ('Well-lit Highways') it has been possible to identify policy, strategy and tactical level gaps.

Manchester City Council is undergoing a review of its service level framework for the TAMP as part of a wider corporate review through the Manchester Improvements Programme (MIP).

Further work is being progressed by the GMADE HAMP group to establish a set of benchmarking performance indicators for Greater Manchester Authorities to facilitate the development of service levels in individual TAMPs.

Customer/stakeholder demand aspirations

Figure 7 Progress with integration of stakeholder requirements into TAMP service levels



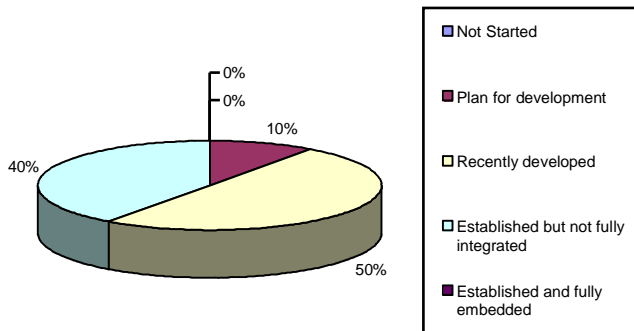
Five of the ten GMHLAs have established citizen's panel surveys or other user satisfaction surveys covering a number of years. There are difficulties in finding continuous and comparable trend data in relation to individual service areas.

In 2006 Bolton Council undertook a focused citizen's panel survey in relation to highways and structures maintenance services, which also provided customer views on relative budget levels for individual maintenance services.

5.2.4 Data management

Inventory data capture

Figure 8 Progress with inventory data capture



GMLHAs are in a strong position to develop advanced asset management planning systems for roads and pavements given a relatively well established condition survey system with a wide array of data (within Scanner in particular) from which key asset management analysis can be undertaken (such as ride quality, edge deterioration and skid resistance). Accordingly, road inventories are also well established electronically on Pavement Management Systems although further work is required to incorporate walking and cycling network hierarchies into GIS systems.

Many authorities have identified gaps in inventory on associated street infrastructure such as unlit signs, bollards and guardrails and safety barriers. Where such inventory items may be needed for safety maintenance planning and risk management these

have been prioritised for data capture although some authorities have yet to complete this.

In relation to condition data GMADE HAMP group are considering a consistent approach to surveys of unclassified roads (BVPI224b), footways (BVPI187) in the light of their removal from the National Indicator set.

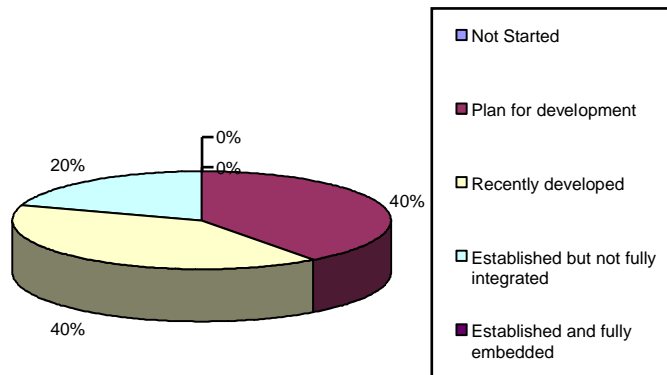
Similarly for Public Rights of Way condition (BVPI178) it is necessary to identify how rights of way survey regimes can capture the most appropriate data to support asset management decision making.

As with roads and pavements, inventories for street lighting are well established within the Appendix B framework.

Data management plans

Data management plans are crucial to ensure the sustainability of data systems and that they can continue to reliably support decision making. Key to this is the establishment of Quality Assurance processes for updating validation and identification of custodians. Figure 9 below shows that Authorities have made significant progress in this regard.

Figure 9 Data management plans



5.2.5 Asset valuation

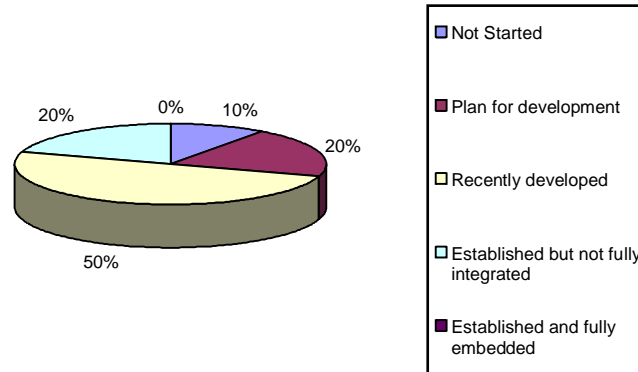
The GMADE HAMP group has developed a single sub-regional set of replacement unit rates for highways, street lighting and minor structures which has enabled Authorities to progress with calculating Gross Replacement Costs. For major structures there are still difficulties in establishing a satisfactory single set of unit rates. However the principle is agreed that there should also be a single set of sub-regional or regional replacement unit rates for bridges and structures.

Although further developments are anticipated with regards to the timetable for Local Authorities to directly feed valuation reports to the Whole of Government Accounting process, work undertaken to develop whole life cost models for asset groups will further assist in the development of robust depreciation calculations.

5.2.6 Whole life costing

Options identification

Figure 10 Progress with whole life cost options identification



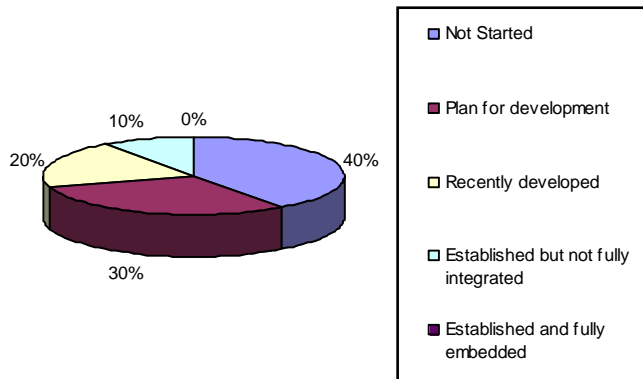
Most authorities are seeking to develop options in tandem with identifying service levels whilst also identifying new ways of using existing condition and performance data to inform this process. Trafford Council, in particular, has made progress in documenting broad options for the highway network.

Manchester and Stockport Councils have also developed broad whole life cost scenarios for footways maintenance in order to produce longer term invest to save programmes as a result of earlier Best Value Reviews.

Condition and performance projections for whole life cost options appraisal

GMADE HAMP group are currently working towards a consistent approach to developing scenario models to support the appraisal and refinement of whole life cost models for the highway network.

Figure 11 Progress with condition and performance projections



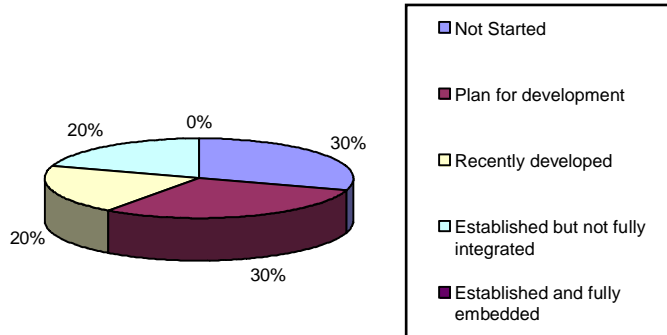
5.2.7 Risk management

Costed risk model

GMHLAs report varying degrees of progress with development of costed risk models for asset groups. Most have developed risk registers for service areas with some detail on mitigation measures. However, some quantification of risks in terms of cost

is needed to be able appraise whole life cost options. This is particularly important for the street lighting stock for example.

Figure 12 Progress with incorporating risk into budget options appraisal



5.2.8 Forward Programming

Most GMHLAs develop individual 2-3 year programmes for individual service areas on a rolling basis (see Figure 13). These are usually derived initially from prioritisation using condition data and broader value management processes prior to political consideration. These programmes provide detail on individual schemes and are reviewed annually, often to realign maintenance schemes with other highway improvement or construction activities.

Tameside and Manchester have longer term programmes for street lighting and structures (Manchester have a forward programme to 2012 for strengthening primary route bridges). Rochdale also use the Bridge Condition Indicator as a basis for developing a 5 year rolling programme. Figures 14 and 15 shows progress towards developing longer term investment programmes. For the purposes of the TAMP it is necessary to develop long term investment programmes demonstrating an optimum level of expenditure on headline intervention types for each asset group. It can be seen that many authorities have plans identified to develop these programmes.

Figure 13 2-3 year programmes

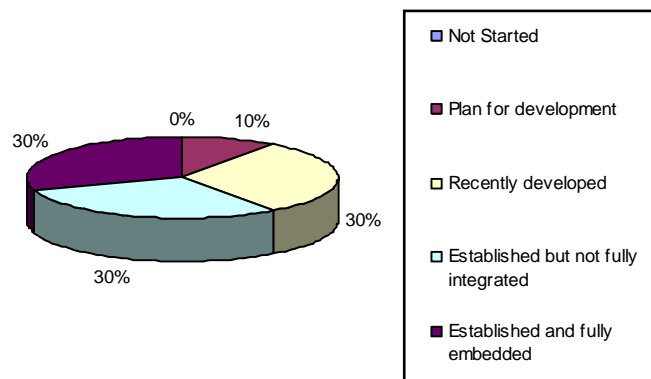


Figure 14 Up to 10 year programmes

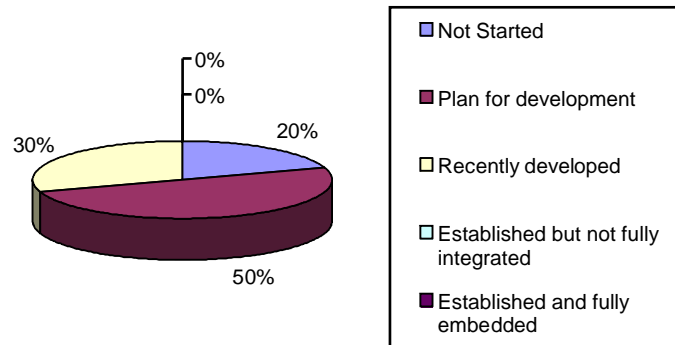
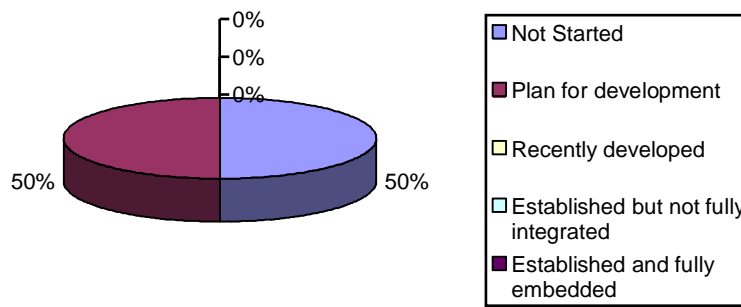


Figure 15 10 years + programmes



5.3 TAMP outcomes

5.3.1 Performance Improvement

User Satisfaction

Comparable data from before and after the beginning of the LTP2 period was available from five of the ten GM Authorities on either levels of satisfaction or dissatisfaction with roads and pavement condition. It is not possible to derive strong trends from collation of this data although four out of five of these authorities showed either **increases** in satisfaction or **reductions** in dissatisfaction or in the proportion of residents stating that roads and pavements were most in need of improvement.

For the purposes of the TAMPs comparable user satisfaction trends need to be analysed over a long time period in order to capture the benefits of accordingly long term investment programmes. However, the above surveys do indicate at least shorter term improvements in proactive or planned road and pavement maintenance (for example through Stockport's pothole mole initiative).

Best Value Performance Indicators

The road, footway and public rights of way condition BVPIs all show improvements in condition (see Progress on Targets). All 10 Authorities have met or exceeded their milestone targets for 2007/08 on BVPI223 (% of Principal Roads where Structural Maintenance should be considered) and 9 out of ten have met or exceeded their 2007/08 milestones for B and C road and unclassified road condition.

There are however concerns with regard to the lack of consistency from year to year in the method for producing the indicators for the classified road network (discussed further below) and the degree to which the parameters reflect the need for major maintenance intervention. This potentially compromises the usefulness of this indicator for the purposes of asset management and particularly in reflecting the true need for investment in structural maintenance. In addition, the indicators themselves can not inform the investment need for preventative maintenance which will become an increasing feature in whole life cost options.

The footway and rights of way condition indicators show a less marked improvement with six out of ten authorities meeting or exceeding 2007/08 milestones for the Category 1 and 2 footway network condition (BVPI187) and seven out of ten meeting the 2007/08 milestone for the Rights of Way network.

Street lighting

Below are some key areas where improved asset management has contributed to higher levels of service for street lighting:

- Addressing community safety concerns, through improvements to lighting in areas with high fear of crime. As an example, Stockport Council has incorporated crime hotspots mapping within its multicriteria prioritisation process to develop programmes for lantern and column replacements, in particular to replace old sodium lighting with new white lighting.
- Management of the risk presented by the stock – improved inventory and data analysis has enabled more robust management of risks of structural failure of street lighting columns. This is a crucial issue in Greater Manchester where most authorities have ageing lighting stocks. Also, in Manchester the PFI arrangement has enabled the replacement of nearly 37,000 lighting columns and all new lighting systems are certified to EN 13201.

Bridges

Most Greater Manchester Authorities have completed or are nearing completion of bridge strengthening programmes to ensure 40 tonne loading capacity on the entire Primary Route Network as per EU Regulations.

5.3.2 Cross-boundary working

Although individual GM Authorities are producing their own TAMPs, all have recognised the need for consistency across boundaries in developing new methods and approaches in line with the GM Maintenance Strategy. Key examples of this have been through the GM Association of District Engineers service profile groups and the LTP maintenance working group.

Key activities within these groups are:

- Development of gross valuation template for highways, structures and street lighting – GM authorities have recognised that consistency and comparability are vital to ensuring that the valuation exercise is meaningful. Considerable work has been undertaken to establish common unit rates and valuation reporting structure. This has enabled the production of Gross Replacement Costs for major infrastructure types.
- Development of a framework for service levels – GM authorities have been working to ensure consistency in the adoption of key local performance indicators and their interpretation in relation to network management and LTP objectives. In particular, through the GMADE service profile groups, the authorities are seeking to establish a common approach in respect of the former BVPIs that are no longer included in the National Indicator Set.

- Development of whole life cost models and condition and financial forecasting methods – a group has been formed to pull together examples of best practice across GM for highway pavement management. However, there is a need to further develop condition and financial forecasting capabilities in order to appraise various service level and whole life cost options, in particular for highway pavement and structures. In the absence of a nationally recognised approach GM authorities are currently identifying where there will be a need to adopt consistent and auditable approaches.

The above demonstrates that joint working in GM goes beyond just sharing best practice. Common approaches are being developed as appropriate within the context of the LTP, the GM Maintenance Strategy and individual authorities' network management plans.

Improved asset management systems within Authorities have also contributed towards the development of business cases for cross-boundary working as in the case of current work on the development of a joint street lighting PFI bid by Oldham and Rochdale Councils, and current proposals for joint delivery of highways and transportation services by Stockport and Trafford Councils.

5.3.3 Efficiencies through data management

GM Authorities have placed emphasis on improving asset data systems, requiring both concerted efforts to capture data required for risk management or maintenance programming as well as improvements in data management processes themselves.

In this respect the development of TAMPs in Greater Manchester must be seen within a wider context of the drive for excellence and value for money in public services. There have been many avenues through which improved data management has enabled efficiency savings and service improvements to be made within Greater Manchester. In particular efficiency improvements have been made through:

- Reduction in duplication
- Increased use of revenue monies for planned maintenance, reducing costs of reactive repairs
- Improved customer service
- Improved contract management
- Improved risk management

The use of GIS based technology and hand held devices for use by operatives has widened the scope for exploring options for more effective data capture, validation and updating as part of routine inspections or reactive maintenance operations.

Key to the further development of the asset management plans is the identification of data on condition and performance that can form the evidence base for future investment programmes. With regards to highways (carriageways and footways) work is underway jointly as part of the whole life costing group to identify key condition information required to inform intervention levels. In order to do this, however, it is vital that we have consistent measures from year to year and this has not been achieved with the current scanner system.

5.3.4 Minimising whole life costs

All GM Authorities have been successful in increasing the use of existing resources for programmed and preventative maintenance operations.

As a result of Best Value Reviews on footway maintenance both Manchester and Stockport have used prudential borrowing to implement Invest to Save programmes for their footways. The primary aim of these programmes is to improve the safety of the network in the short, medium and long term whilst reducing future steady state maintenance costs. The savings anticipated are twofold:

- In the medium term through structural maintenance on the footways savings are achievable through reductions in the number of trip claims
- In the longer term it is possible to plan for a shift towards more cost effective preventative treatments to footways

Following the implementation of the first three years of Stockport's programme there has been some success in reducing the numbers of new claims received from trips on footways.

The minimisation of whole life costs was a key driver behind the development of the Greater Manchester Retaining Walls Maintenance Scheme business case that is currently under consideration by the Department for Transport. The scheme was informed by the early development of TAMPs throughout 2005/06 amongst four participating authorities (Oldham, Rochdale, Stockport and Tameside) and clearly identified that up front investment would be needed to firstly remove a backlog of safety maintenance as well as ensure the sustainability of the future performance of these critical infrastructure elements, at minimal cost.

6. Key challenges and recommendations for further development to 2010/11

The following section details key challenges in common with all GM Authorities in developing their TAMPs and outlines actions to be taken forward and co-ordinated through joint working at the GM level.

6.1 *Bridges and Structures*

Long term financial planning and performance management for the highways structures stock will ultimately require a relatively sophisticated asset management system although as yet there is a lack of clear and practical guidance on cost effective means of implementing this. Until such guidance is made available GM Authorities can achieve strength in consistency at a sub-regional or regional level in identifying a less intensive practical approach to achieving Milestone 3 actions.

Actions

- 1. Review gap analysis against Code of Practice Milestone 3 and Framework for Highways Asset Management**
- 2. Identify practicable approach to long term financial planning for structures stock and achieving Milestone 3 with demonstrable value for money**

6.2 *Integration with network management plans*

In accordance with the Codes of Practice (Well-Maintained Highways), the development of TAMPs should be embedded with the development of network management plans. This is particularly important in developing meaningful performance framework that reflects the relationship between asset condition and the service it provides to the community.

Actions

- 1. Ensure that common GM set of TAMP local performance indicators support Network Management Plan objectives**
- 2. Develop common prioritisation framework for maintenance and network management/ highway improvement plans**

6.3 Further development of the evidence base for decision making

The first 2 years have seen an emphasis on closing the gaps in data on transport assets. This has been done through prioritising data capture on the basis of factors such as risk, asset value or other practical issues related to the ability to validate and update data.

Actions

- 1. Complete all necessary data capture as identified for the purposes of safety related maintenance and risk management**
- 2. Continue to refine and calibrate condition forecast models using real data from condition surveys**

6.4 Public interface

Whilst most Authorities have arrangements in place for regular consultation with communities on highway maintenance and street cleansing operations (such as through Citizen's Panel surveys), there is need to better engage with wider communities to understand how maintenance and network management functions are contributing to their priorities and criteria for a well-functioning transport network.

In addition there is scope to explore some common approaches to customer service and particular in using public reporting systems (such as Stockport's Pothole Mole initiative).

Actions

- 1. Investigate the use of a sub-regional or national user satisfaction/ priorities benchmarking system**

6.5 New technology

TAMPs must provide a framework through which the adoption of new technology can be optimised, ensuring that opportunities are not missed but also ensuring that the new technology provides value for money in achieving tactical and strategic objectives.

This issue is particularly pertinent when considering renewals strategies for traffic signals and street lighting for example. In the case of the former, it is important that Greater Manchester Authorities develop a robust value management framework to cover network management functions, risks, whole life costs and overall environmental performance (such as carbon emissions).

Actions

- 1. GM Authorities to work with UTC on service levels for traffic signals**

6.6 Climate change

In relation to climate change TAMPs will need to be developed in line with new sub-region arrangements for delivery of carbon reduction and climate change mitigation measures. Most climate models now predict significant increases in the occurrence of extreme weather events within the next 20 years which is a typical time horizon for TAMPs to cover. This will require further work to develop costed risk models to inform long term financial planning.

Actions

- 1. Establish service levels and renewals strategies in line with carbon reduction targets in particular for street lighting and traffic signals**
- 2. Identify carbon reduction measures through procurement and construction management**
- 3. Adaptive strategies – incorporate climate change forecasts into costed risk models for transport network**
- 4. Drainage – develop joint working group to address data sharing with United Utilities and Environment Agency**
- 5. Investigate potential for further uptake of SUDS**
- 6. Ensure climate change and biodiversity considerations are incorporated into grounds maintenance strategies**

7. Issues and Constraints

7.1 Technical guidance and consistency

The development of TAMPs requires the introduction of a number of techniques such as for asset valuation and condition and financial forecasting that have rarely before been integrated within local authority processes. In view of the aspiration that TAMPs should form the basis for future submissions for funding, it is important that some degree of consistency and ability to audit processes, at regional and national levels, is achieved. The current guidance contained within the Framework and the Codes of Practice provides a strong theoretical framework to guide innovative or experimental methods. However, more detailed technical specifications will be required in the future if TAMPs are to attain the necessary credibility to be able guide financial management.

This is particularly the case with requirements for Whole of Government Accounting and we welcome CIPFA's recommendations for further guidance on asset depreciation for example. However, guidance also should address practical issues in developing long term investment profiles and predictive modelling in support of decision making. Financial reporting requirements should then be supportive of those methods rather than restrictive.

We also appreciate that there is a balance to be struck in developing specifications such that they enable continued improvement and innovation. As this Annex has highlighted, the Greater Manchester Authorities have individually and jointly demonstrated a high degree of innovation in progressing their TAMPs as well as a commitment to sharing these innovations with other authorities. We hope that any future national guidance would build upon innovations and experiences to date, and enable further continuous improvement.

7.2 Lack of clarity over role of TAMPs in the future transport planning process

The Code of Practice for Highways Maintenance Management (Well-Maintained Highways) provides a broad context for highways asset management plans, embedding them within the overall transport planning framework (Section 8, and in particular Figure 3). However, there is no statutory mechanism or timescale for embedding TAMPs within the Local Transport Planning process.

The impact of this is that there is uncertainty amongst practitioners as to the appropriate level and process with which to engage in developing TAMP service levels.

The recent review of capital maintenance funding formulae (2007) provided no further indication of how TAMPs will be used in future to inform funding requirements. Understanding this is vital in determining the range of avenues for financing available for identified investment options.