



## Highways Asset Management Strategy

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**Document Control**

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## 1. Introduction

Thurrock Council recognises the importance of the highway infrastructure in the context of the well-being of all who use it. The Council as Highway Authority is committed to the good management of the highway asset not only for now but also, for future generations, and recognises that effective asset management is essential to deliver clarity around standards and levels of service, and to make best use of available resources.

The Asset Management Strategy underpins the Highway Asset Management Policy and is one of the key strategic documents related to the delivery of the Council's highway services.

This document reflects the guidance laid down in the suite of national Codes, in particular the Code of Practice '*Well-maintained Highways*' and the guidance issued by the Highway Maintenance Efficiency Programme (HMEP) on the use of asset management principles

The purpose of this document is to:

- Formalise strategies for investment in key highway asset groups
- Define affordable service standards
- Improve how the highway asset is managed
- Enable more effective and efficient Value for Money (VfM) highways services to be delivered.

## 2. National Policy & Legislative Requirements

Developing a Highways Asset Management Strategy (HAMS), keeping it up to date and actually using it to feed into the decision making process is widely seen to be a valuable exercise. However, there are a number of other drivers.

### 2.1. Government Guidance for the Local Transport Plan

The requirement to produce a HAMS was first highlighted in the Full Guidance on Local Transport Plans (LTP) published by the Department for Transport in December 2004. This required all Transport Authorities to produce a statement in their Provisional second LTP submissions on their proposed approach to producing a HAMS. Following further guidance from Department for Transport, these statements were revised for the Final second LTP submissions in March 2006.

It is clear that the Department for Transport sees HAMSs as the key tool in the future management of the highway network. This is further indicated by recent events with regard to the way the Government allocates funding for structural maintenance. For 2011/12, the Department for Transport started to remove road condition data from the formula used to allocate the capital maintenance block between authorities, moving towards just using road lengths and classification to allocate funding. However, a working group of local authority officers will consider further changes to the maintenance formula. The Department for Transport is “attracted by the suggestion of linking the formula to highways asset management”, i.e. a HAMS.

### 2.2. Whole Government Accounting (WGA) Requirements

Since 2006 all local authorities have been required to produce a valuation of their highway assets. Under these requirements from 2007/08, local highway authorities were expected to determine not only the value of their assets, but also monitor year on year whether or not they are depreciating following investment. There is therefore a close relationship between asset management and asset valuation.

### 2.3. Guidance

Also available at the national level is a series of guidance documents on asset management. The HAMS for Thurrock has been developed making use of these, which are:

- Guidance on the Requirements for the Production of Highways Asset Management Plans and a Simple Valuation Methodology – TRL (2006)
- Guidance Document for Highway Infrastructure Asset Valuation – County Surveyors Society/TAG Asset Management Working Group (2005)
- Highway Asset Management Worldwide Experience and Practice – County Surveyors Society (2004) Framework for Highway Asset Management – County Surveyors Society (2004)
- Management of Highway Structures: A Code of Practice – Roads Liaison Group (2005)

### 3. Local Policy Framework

A full review of the HAMS will commence towards the end of 2016. It is anticipated that the HAMS will be a tactical document that links both the strategy set out in the Thurrock Transport Strategy 2013 - 2026 and the priorities in the LTP to the more detailed operational and business plans, especially the annual programme for highway maintenance works. This chapter therefore summarises the key objectives and policies of Thurrock Council, especially as described in the Thurrock Transport Strategy 2008-2021 and the contribution that well-structured maintenance can make.

#### 3.1. Thurrock Transport Strategy: 2013 to 2026

The Thurrock Transport Strategy 2013 to 2026 comprises the strategy element of the statutory Local Transport Plan. It has a number of transport specific objectives that are supported by maintenance practices, including:

- Delivering Accessibility
- Tackling Congestion
- Improving Air Quality and Addressing Climate Change
- Safer Roads
- Facilitating Regeneration

To meet these and other objectives, the Thurrock Transport Strategy has five thematic strategies concerning accessibility, congestion, safety, air quality and climate change, and regeneration.

The thrust of the accessibility strategy will work to deliver the following outcomes:

- Enhanced access to key services, goods and opportunities for disadvantaged groups, especially to employment, hospitals and further education;
- People have sustainable transport options providing accessibility to shops and businesses, education and leisure facilities;
- Residents in rural areas have access to appropriate transport options;
- Improved access to London Gateway;
- Improved access for people to sustainable transport options;
- Improved physical fitness, especially in disadvantaged communities, through greater use of active transport such as walking and cycling; and
- Sustainable access to areas of new development and regeneration.

The strategy for tackling congestion will be to deliver a targeted programme of measures to encourage a modal shift to more sustainable modes of transport such as walking and cycling, and improve the efficiency of the transport network. Key relevant policies include:

- The development of a network of high quality inter-urban public transport routes
- A modal shift towards walking, cycling and public transport
- Improved highway network efficiency

Improving air quality and mitigating/ adapting to climate change will be achieved by supporting modal shift and then reducing emissions from vehicles, as well as reducing Thurrock's vulnerability to climate change. Key relevant policies include:

- Transport measures that reduce both greenhouse gas and air pollution emissions will be prioritised
- Mitigating the adverse impacts of freight operations by reducing emissions from Heavy Goods Vehicles in Thurrock
- When undertaking transport improvements, including maintenance schemes, the Council will integrate climate change adaptation measures into design to ensure that vulnerability to the transport network from climate change is minimised

The safety strategy, whilst aiming to reduce casualties where people are killed or seriously injured on the Thurrock road network, will take a broader and proactive approach, aiming to reduce road danger and improve personal security and thereby promote modal shift and community regeneration. Key policies include:

- A priority will be safety around schools
- Integrating road safety into all work programmes, including maintenance
- Creating a safer environment for pedestrians and cyclist

The regeneration strategy is largely integrated into the other thematic areas, particularly in terms of social and economic regeneration. However, key policies related to environmental regeneration are:

- When designing and implementing transport improvements the Council will ensure they contribute to the quality of the public realm and the integrity of its historic and cultural setting
- When designing and implementing transport improvements the Council will ensure they contribute to the protection and enhancement of habitats and biodiversity, the integrity of water quality, and the preservation and enhancement of the landscape

### 3.2. *Maintenance priorities*

Maintenance is important for all of the Local Transport Plan objectives, for example:

### 3.3. *Safety*

Maintenance practice can impact on road safety, including accidents and safety concerns that might inhibit modal shift, as well as personal security such as through the availability and quality of street lighting after dark.

### 3.4. *Congestion*

Maintenance practice can help to promote modal shift by improving conditions for pedestrians and cyclists, and improve network efficiency such as through careful programming and coordination of maintenance works, especially on key routes so as to

minimise congestion and disruption. It can also reduce the likelihood of incidents on important routes.

### 3.5. *Climate change and air quality*

Maintenance practice can reduce emissions in a number of ways, such as:

- In-situ recycling to reduce lorry movements
- Recycling of materials to reduce the need for the quarrying of primary aggregates and the associated processing and transportation of raw materials
- Eco-driver training for maintenance staff
- Use of low emission/ fuel efficient maintenance vehicles
- Adapting to climate change, such as through flood prevention measures

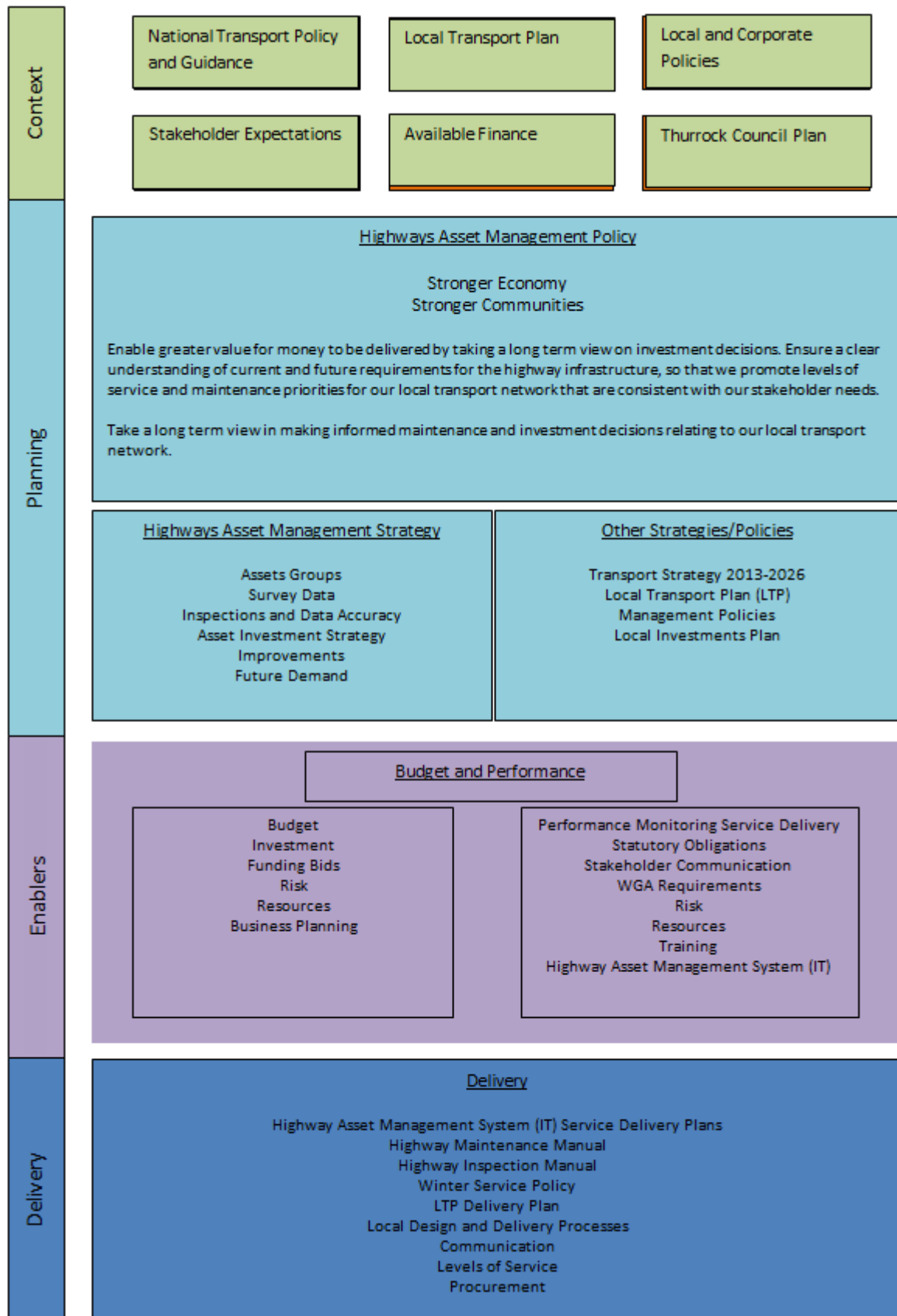
### 3.6. *Accessibility*

Maintenance practice can support accessibility by helping to create good conditions for pedestrians and cyclists, and taking into account the needs of people with disabilities.

### 3.7. *Regeneration*

Maintenance practice can support environmental regeneration, including through: recycling materials and so reducing the need for land take, reducing street clutter, protecting and enhancing habitats and biodiversity such as in verges, using appropriate materials in areas of cultural heritage, and helping to avoid noise and water pollution.

#### 4. Asset Management Framework





## 5. Strategy for Individual Assets

As part of the asset management framework, and in accordance with other national guidance, the highway asset has been divided into asset groups. Each group is then broken down into asset components. The asset groups and components are described below in section 6.1.

A key function of the asset management process is to understand the funding needs of each asset group and component against performance, aims and objectives. This means understanding funding requirements, which will meet the following:

- LTP objectives;
- Delivery Planning
- Performance Targets

Key to this process is a need to understand the impact of financial decisions on customer satisfaction and the delivery of the corporate priorities. The impact that investing in one asset component may have on the overall performance of other asset components as well as the whole asset, is considered during the assessment process.

For the delivery of the highway service, Thurrock Council undertake all highway operations including all routine and operational functions along with planned maintenance and regeneration schemes.

In line with national guidance and good practice, Thurrock Council is developing a whole lifecycle approach to managing its highway maintenance activities. Understanding how long specific maintenance treatments last, the relative cost of these treatments and the Levels of Service (LoS) provided are essential pre-requisites to good asset management. Thurrock Council's goal is to continue to provide a safe and effective highway network, demonstrating value for money and efficient service delivery, in line with Council priorities.

## 6. Assets

### 6.1. Asset Groups

<b>Asset Group</b>	<b>Asset Component</b>
<b>Carriageway</b>	Carriageway Road Markings Winter Maintenance Street Cleansing Traffic Calming Features
<b>Footway</b>	Footway Cycleway Pedestrianised areas Street Cleansing Winter Maintenance

<b><u>Lighting</u></b>	Lighting Columns Lamps Cabling Ducts Feeder Pillars Illuminated signs and bollards Seasonal illuminations Subway Lighting
<b><u>Structures</u></b>	Bridges Culverts Embankments Retaining Walls Vehicle restraint systems
<b><u>Traffic Signals</u></b>	Signalised junctions Pedestrian and cycle crossings UTC systems Detection equipment Cabling and Ducting CCTV equipment in the highway
<b><u>Drainage</u></b>	Gullies and linear drainage channels(road and footpath) Highway drains (including pipework, manholes and outfalls) Pumping stations and telemetry Land drainage ditches and watercourses Roadside ditches
<b><u>Street Furniture</u></b>	Signs (advance direction, warning, regulatory, local direction/information, parish) Sign posts Non illuminated bollards Fences Guardrail Barriers Information boards Cycle Stands Street name plates Bus stops Bus shelters Litter bins Benches/seats Cattle Grids
<b><u>Rights of Way</u></b>	Footpaths and bridleways (both surfaced and unsurfaced) Gates Stiles Bridges Marker Posts and footpath signs Steps Boardwalks Barriers Handrails

## 7. Asset Management Planning

The asset management team should aim to develop a process for carriageways, which allows lifecycle aspirations to be considered and compared with condition targets, budget constraints and stakeholder's wishes, offering options for route and treatment strategies. Where suitable data is available this concept can, and will be implemented across other asset groups.

Packages of information are prepared annually, allowing the design team to formulate programmes of work based on the allocations identified in the previous stages. To further

support and inform local needs a prioritisation process is being developed for carriageways to formulate programmes of work that relate to the high level aspirations, bringing customer focus and economic influences into the decision process. Where suitable data is available and where appropriate this concept will be extended to encompass other Asset Groups. This will allow decisions to be made that consider criteria as well as condition and develop work programmes that are not necessarily based upon 'worst condition first'.

### *7.1. Gross Replacement Cost and Depreciated Replacement Cost*

Whole of Government Accounts (WGA) has set new requirements for the way the value of the highway asset is reported to the HM Treasury in the Authority's audited accounts. The new approach has now been fully implemented. Authorities are now required to report the Depreciated Replacement Cost (DRC) of the highway asset. For this to be achieved on a yearly basis there is clear need for accurate and detailed inventory information and performance data. This requirement is supporting asset management by providing an improved understanding of network deterioration and combining it with the levels of service to be achieved.

A strategy will be developed with the Councils Finance team to ensure asset management practices are in place to satisfy the financial reporting requirements defined in the Transport Infrastructure Assets Code, published by CIPFA in May 2010. Thurrock Council embraces this approach and is developing the processes for collating the data needed to meet the WGA requirements, whilst developing good asset management practices that will lead ultimately, to a refinement of the service. This requirement is supporting asset management by providing an improved understanding of network deterioration and combining it with the levels of service to be achieved.

## **8. Future Demand**

### *8.1. Lower Thames Crossing*

The Lower Thames crossing is a proposal brought forward by Highways England (HE) to construct a new Thames Crossing in order to relieve the current crossing and reduce congestion.

This has been strongly opposed by Thurrock Council due to a lack of sufficient data to support the proposal. However, if the proposal is approved this could put considerably more pressure on the current network.

## **9. Benefits of Asset Management Strategy**

The benefits of implementing the asset management strategy are as follows:

- Encourages engagement with other stakeholders, including Elected Members, Senior Officers and the public;

- Readiness to respond to changes resulting from climate change, weather emergencies, contractors, resilience and finance,
- Close working and integration of efforts with other parts of the Council, including
- Corporate aims and objectives;
- Improved delivery within budget constraints – including procurement;
- Efficiencies – better ways of doing things, or improved service, enhancing performance in a challenging environment.
- Improved understanding of customer aspirations and expectations;
- To influence and focus on the better use of resources.

## 10. Improvement Plan

<u>Theme</u>	<u>Status</u>	<u>Actions</u>	<u>Completion</u> <u>Date</u>
Strategy	Strategies and options reports need to be developed as part of the budget setting process	Develop strategies and options reports.	TBC
Data (1)	Asset Data is relatively poor. Some Asset Data is stored externally including Traffic Management and Structures. Internal data is patchy with no formal records for Drainage or Street Furniture.	<ol style="list-style-type: none"> <li>1. Collect condition data for footways</li> <li>2. Develop strategy for drainage and Street Furniture asset data collection and collect higher priority items</li> </ol>	TBC

Data (2)	Data is required regarding gully cleansing operations. The data will be used to devise a more cost effective and efficient gully cleansing regime, visiting higher need gullies more frequently and those that are routinely found to not need cleaning less frequently.	<ol style="list-style-type: none"> <li>1. Collect gully cleansing data</li> <li>2. Devise improved gully cleansing regime</li> </ol>	<p>Ongoing</p> <p>Sept 2016</p>
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Data (3)	Future customer contact data and NHT survey results to be reviewed and analysed	<ol style="list-style-type: none"> <li>1. Customer contact data to be collected and analysed as appropriate.</li> <li>2. NHT survey results to be reviewed and analysed as appropriate.</li> </ol>	<p>Jan 2017</p> <p>Nov 2016</p>
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Data (4)	There is accelerated deterioration of carriageways due to high level of HGVs on specific routes and areas at risk of structural damage due to periods of exceptional weather.	<ol style="list-style-type: none"> <li>1. Carry out analysis to quantify and determine a response to this damage.</li> </ol>	TBC
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Information systems	The Council has invested in an asset management system Symology, to support asset management.	<ol style="list-style-type: none"> <li>1. Review inventory data collection and storage</li> <li>2. Add required inventory data into Symology</li> <li>3. Agree procedures for maintenance of data and ensuring data remains in date</li> <li>4. Continue updates of asset data.</li> </ol>	TBC  TBC April 2016  Ongoing
Processes	Prioritisation processes for key asset groups	Budget allocation process between key asset groups requires review and updating.	April 2016
Finance Practices	There is a need to review the cost coding structure to enable improved cost control and benchmarking.	Review and implement revised cost coding structure if required.	TBC

## 11. Good Practice

Thurrock Council is committed to the development of good practice and benefits from lessons learnt at National, Regional and Local levels. Officers from Thurrock Council regularly contribute to and attend:

- National and regional conferences;
- The CIPFA Highways Asset Management Planning Network;
- South East HAUC

Furthermore, Thurrock Council is committed to the sharing of knowledge and experiences in implementing asset management with other Highway Authorities across the Country. To this end, officers from Thurrock Council should aim to regularly present examples of good practice at national conferences and regularly attend meetings with the following groups:

- Highways Asset Management Financial Information Group (HAMFIG);
- The Chartered Institute of Public Finance and Accountancy CIPFA
- Highway Maintenance Efficiency Programme HMEP
- UK Roads Board
- National and regional conferences
- South East HAUC

## 12. Supporting Documentation

The Asset Management Strategy refers to, and is linked to a number of key documents, as listed below, that combined allow for the asset management approach to be implemented and support the delivery of the desired level of service. These include documents in the table below:

<b><u>National</u></b>	<b><u>Thurrock Council</u></b>
UKRLG Codes of Practice	LTP
CIPFA Financial Reporting Code	Council Plan
PAS 55	Corporate Strategy
CSS Framework for Highway Asset Management	Highway Asset Management Policy
Maintaining a Vital Asset	Highway Maintenance Policy
HMEP Highway Infrastructure Asset management- Guidance Document	Winter Service Policy and Plan
HMEP A LEAN Toolkit for Highway Services	

## 13. Review Process

This strategy will be updated annually with minor amendments and reviewed on a three yearly basis by the Highway Asset Management Team.