



# **Cumbria's Highway Asset Management Plan**

## **Executive Summary**

### **Why the need for a highway asset management plan**

Cumbria's 7,700km highway network is the largest and most valuable asset owned and maintained by the County Council, and plays a vital role in supporting Cumbria's economic prosperity and quality of life.

The consequence of poorly maintained highway infrastructure across the County impacts directly on all road users - both businesses and domestic - has a detrimental impact on the local economy and on user's perception of Cumbria. Poor roads mean increased vehicle operating costs, delays and less safe roads, and as a result is likely to influence business investment, decisions about where people live, work and travel as well as leisure and tourism.

Cumbria faces a challenging time under the current austerity measures, and this means the County Council is under increased pressure from central government and those who live and work in Cumbria to be able to demonstrate the most cost effective and efficient ways to deliver local services.

The scale of the task of maintaining Cumbria's highway infrastructure and the resources needed to do this are significant (annual capital expenditure to maintain the network amounts to circa £29 million). However, the Chartered Institute of Public Finance (CIPFA) estimates that if local authorities followed an asset management approach to managing its highway network it could achieve 5% efficiency savings (in Cumbria this would amount to circa £1.35 million).

This approach has already been embraced by many public and private sectors organisations who manage large physical assets, and peer groups representing other industry sectors have reported efficiency savings of between 5% and 15%.

We are therefore proposing to adopt these principles in our approach to managing and adding value to the County's highway infrastructure, with the aim that we will be able to demonstrate real benefits in terms of better value, longer lasting and improved road conditions across the county.

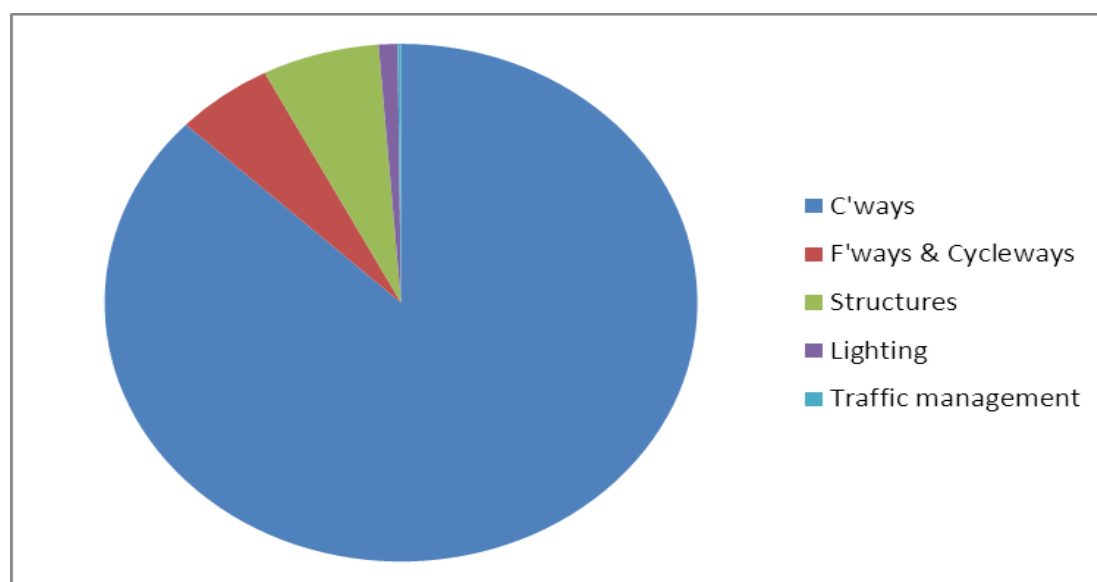
The HAMP builds on the Transport Asset Management Plan (TAMP); a strategic document that identifies how good asset management can help the Council achieve the corporate goals and objectives set out in its Council Plan.

The Cumbria's Highway Asset Management Plan (HAMP) will be used by the H&T service to implement this new approach, guided by its statutory requirements and corporate objectives set out in the Council Plan (2011-2014) and Local Transport Plan (LTP3).

## Asset Value

A key driver for the HAMP is the requirement for the authority to report the value of its assets, including transport assets to central government as part of Whole Government Accounts (WGA). The current Gross Replacement Cost (GRC) of the highway infrastructure asset in Cumbria is estimated at £7.35 billion and represents the cost to replace the entire asset with its modern equivalent. The illustration below represents the GRC for highway assets from the Council's most recent valuation.

Asset Group	£M
Carriageways	6,400
Footways & Cycleways	391
*Structures	470
Lighting (indicative only)	76
Traffic management	13
	7,350



\*Structures valuation of £470million is based on deck area of bridges and is indicative only. A more accurate valuation will be provided once the HMEP structures toolkit is operational.

## Measuring performance

The HAMP will help the Council make decisions about the quality, standard and durability of road maintenance which the Council can afford to deliver over the short, medium and long term.

Road users expectations will be taken into account in establishing these standards, and these will be developed as "levels of service" statements in consultation with users. These will be used by the H&T service as performance measures to monitor whether the Council is meeting its levels of service.

The performance demands of the road network may change over time and the levels of service will reflect these changes guided by road user expectations, statutory requirements and affordability.

### **Asset data**

A fundamental element of the asset management process is managing and maintaining up to date good quality asset data. This comprises information on highway assets the Council is responsible for including quantities, location, condition, performance and financial value. This data is used to support elements of the HAMP including lifecycle planning and asset valuation.

The process of collecting data is continual, and the information will be stored within the Council's "Highway Integrated Management System" (HIMS) - a single system for managing the county's highway asset information currently under development. Information stored within HIMS can be analysed to help develop highway maintenance programmes of work.

The following table lists Cumbria's main highway assets (approximate quantities stated):

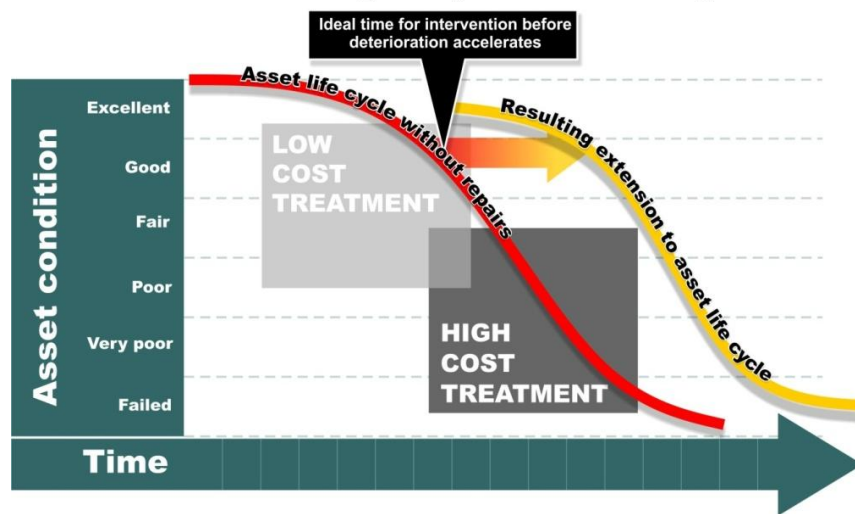
<b>Asset Group</b>	<b>Quantity</b>
<b>Carriageway</b>	<b>7,735 km</b>
<b>Footway and Cycleways</b>	<b>4,015 km</b>
<b>Highway Drainage</b>	<b>104,885 gullies</b>
<b>Communications Installations</b>	<b>462</b>
<b>Special Verges</b>	<b>6.4 Square km</b>
<b>Road Restraint System</b>	<b>36 km</b>
<b>Traffic Management Systems</b>	<b>429</b>
<b>Road Lighting columns (including Carlisle City)</b>	<b>56,000</b>
<b>Structures, including culverts &gt;1.5m</b>	<b>1,908</b>
<b>Public Rights of Way</b>	<b>4,521 km</b>

### **Lifecycle planning**

Lifecycle planning is used to determine long term investment requirements for highway infrastructure by developing an appropriate sustainable maintenance strategy over the life of the asset from construction to disposal. Lifecycle planning is used to predict future performance of the asset for different levels of investment under different maintenance strategies.

The aim of this is to maximise the life of an asset to an agreed level of service whilst minimising the resources needed to maintain it to this standard. An example of the benefits of lifecycle planning for the carriageway is illustrated below.

## General Carriageway Asset Life Cycle



### Making the case for investment

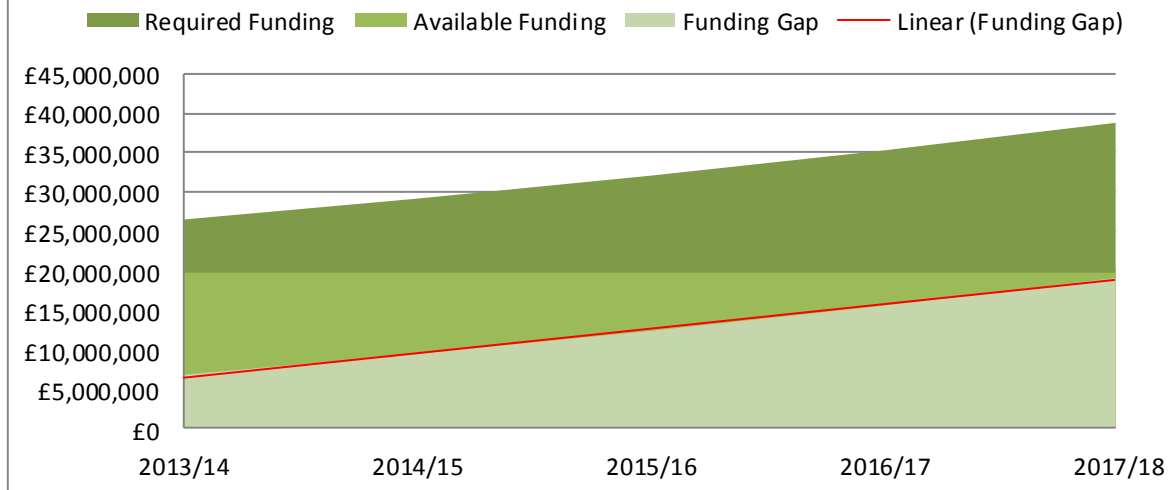
The HAMP supports the case for investment in the highway network by demonstrating the benefits that financial investment can bring in increasing the life and value of the asset. The graph below outlines the case for carriageway investment showing the potential gap between the current level of maintenance investment and the amount of investment required to maintain the carriageway network at its current condition (steady state).

The graph is based on asset condition data in HIMS collected through carriageway condition surveys over a 5 year lifecycle plan, assuming an increase for inflation and materials of 10% year on year.

A potential gap of £6.8m in maintenance funding exists in the current financial year (2013/14), increasing to £19.1 in year five (2017/18); these figures are cumulative, after 5 years the total gap in funding for carriageway maintenance is £63m.

It is concluded from this data that current maintenance funding is only sufficient to manage the continued deterioration of the carriageway network and an increase in investment is required to reduce the rate of deterioration of Cumbria's carriageway network.

## 5 Year Carriageway Maintenance Funding Forecast



### Implementation

This new approach will require leadership, commitment and support to develop an asset management culture across the service and training at a number of levels to explain what needs to be done and the role of staff within the H&T service to deliver it. Engagement with councillors and stakeholders will be key to communicating this approach.

This is set out in the HAMP "Implementation Plan" which outlines H&T annual activities and responsibilities for asset management. The plan consists of:

- Required actions and those responsible for delivery;
- Communication needed to inform staff;
- Programme of delivery;
- Review process

The HAMP will be implemented by the Asset Management Working Group supported by the Asset Management Team. The Council will benchmark its HAMP with neighbouring authorities to share lessons learnt and good practice.