



Highways
Asset
Management
Strategy
2020-2025

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■ Cover photo: Thirlmere



■ The Citadel



Foreword

Highways are essential to people's daily lives and local businesses, especially in a rural county such as Cumbria where there are limited alternative options for travel and a high dependency on road journeys. We recognise the significance of roads in keeping people and places connected, which supports our communities to thrive; be healthy and safe; ensures places are well connected and has an economy that continues to grow and benefits everyone.

With the fourth largest road network in the country, Cumbria County Council has a significant job on its hands to make sure the highway asset is well managed, and to ensure the network operates efficiently.

The County Council recognises the need to manage the asset well and has adopted the best practice guidelines of the Well Managed Highway Infrastructure: A Code of Practice and the Highway Maintenance Efficiency Programme to ensure we maximise the impact of the limited resources available.

The Highways network in Cumbria is an ageing asset and it has been affected by recent extreme weather events, which are becoming more regular. Maintaining this asset to the standards expected within the resources available will always remain a challenge.

This Strategy will put customers at the heart of everything we do in providing a high quality highways service and well-managed asset that meets the needs of all our road users. However, we recognise it will require new approaches if the council is to succeed in this.

This Highway Asset Management Strategy sets out how we will do this in a strategic and efficient way and I look forward to its implementation that will lead to improved highways for Cumbria and most importantly improved outcomes for the customers.



**Keith Little,
Cabinet Member for Highways and Transport**





■ Pooley Bridge

Introduction

Cumbria County Council has the fourth largest highway network in England with over 7,900km of carriageway and an estimated value of £7.2 billion.

The county's highway network is a significant asset that connects people and places across Cumbria contributing to the wellbeing of residents, thriving communities and enabling people to access work, learning and business opportunities to fulfil their ambitions. The Council will maintain the county's highway network to the best possible standard within the available resources while continuing to pursue all the opportunities we can to secure additional funding for the maintenance and improvement of our highways and transport infrastructure.

Available funds, especially revenue funding, is reducing year on year; therefore, it is now more important than ever to optimise our resources to get maximum value from the highway asset.

The Highway Asset Management Strategy is aligned to support the aspirations of the Council Plan and clearly set out our standards and levels of service for the highways infrastructure assets. The previous strategy was approved in 2015, which set out both the Council's Policy position and our strategy for Highway Asset Management. This strategy, which has been shaped by stakeholder and customer priorities, will support delivery of the Council Plan and further develop our asset management approach in line with the Well-Managed

Highway Infrastructure: A Code of Practice (The Code). This adopts a risk-based approach to highway infrastructure maintenance and has been used as the framework to provide the direction of travel for improvement in the service.

Our asset led approach intends to assist us to deliver a more efficient and effective approach to management of highway infrastructure assets through longer term planning and ensuring that levels of service are defined and achievable within available budgets. We put our customers at the heart of our strategy to ensure the highway infrastructure is maintained to provide the best service to the people of Cumbria.



■ Kirkstone Pass



Highways Asset Management Policy



The Highway Asset Management Policy statement supports the Council Plan, which sets out our commitment to improving the lives of the people of Cumbria. To achieve this will require us to adopt new ways of working:



The Council Plan describes the Council’s vision and aspirations for the county and the overall approach we will take to deliver these aspirations. We cannot achieve our aspirations for the people and places of Cumbria on our own so we are committed to working in partnership with other organisations and with communities to achieve the objectives we share. This is set around the framework of outcomes for the people of Cumbria; new ways of working and underlying core principles.

The Council Plan Vision is:

...a Council that works with residents, businesses, communities and other organisations to deliver the best services possible within the available resources...

Maintaining the Council’s roads to the best possible standard within the available resources is a focus of activity for the Council towards achieving our Council Plan outcomes. As a highway authority, Cumbria County Council has a statutory duty to maintain, operate and improve the highway network on behalf of all its customers. We do this by providing services in a sustainable way; that meet statutory requirements without compromising the health and safety of our staff or customers.

Our vision for our highways service is to provide:

...a customer focussed, resilient and cost effective service that delivers a safe and well managed highways asset...

This will be achieved by supporting the key outcomes of the Council Plan:

- **People in Cumbria are healthy and safe:** The highway network contributes to ensuring people are healthy and safe by ensuring everyone can safely use the network. The network is used by a diverse range of transport modes to build, support and maintain people's health through walking, cycling, low carbon emission transport, public transport and personal transport.
- **Places in Cumbria are well-connected and thriving:** Being a predominantly rural county the highway network provides the physical means to connect places in Cumbria, promote business and economic growth and support communities to thrive.
- **The economy in Cumbria is growing and benefits everyone:** The highway asset is key to supporting the economy in Cumbria to sustain and grow by providing and managing the key transport corridors that enable economic activity.

We have also embraced Well Managed Highway Infrastructure - A Code of Practice by reviewing our progress and embedding the 36 recommendations. The detail of this is outlined in the Highway Asset Management Plan (HAMP).



■ Hardwicke Circus

Our Strategy – The framework for asset management

National guidance on Highways Infrastructure Asset Management sets out a framework which describes all asset management activities and processes that are necessary to develop, document, implement and continually improve asset management practices.

In support of this Strategy there is a suite of documents that is outlined in Table 1, opposite, including:

- Highways Delivery Plan that provides the top-level key deliverables and measures of success.
- Highways Asset Management Plan that includes policies and guidance, service standards and levels of intervention in respect to the Council's legal requirements and its service provision.

Our Asset Management framework demonstrates how asset management links to our broad organisational context and strategic direction of travel, all the way through to frontline delivery of services.

The context for our asset management strategy approach is the Council Plan's new ways of working. This includes:

- **Customer:** Putting our customers at the heart of everything we do. Our Customer Charter and Strategy will support our aim to engage and inform our customers providing appropriate and timely information. We will listen to our customers and make improvements to our service to achieve an improved customer experience of the service.
- **Working Together:** Working with partner organisations and communities to achieve shared aspirations. Our aim is to work with Local Committees, Parish and Town Councils, community groups and partner organisations to deliver outcomes for the benefit of Cumbria and its communities.
- **Enterprise and Efficiency:** Exploring new ways to deliver services and maximise our resources. Our aim is to explore innovative and commercial opportunities, to maximise our resources and reduce our service impact on the climate and environment.
- **Prevention and Early Intervention:** Acting early to achieve better outcomes. Our aim is to ensure we adopt early intervention and prevention strategies to keep our communities healthy, safe and connected.
- **Digital Transformation:** Giving our customers choice and easy access to online services. Our aim is to refresh our customer information and reporting systems by providing easy access online, by telephone and email to ensure our customers can inform us of problems in the network.

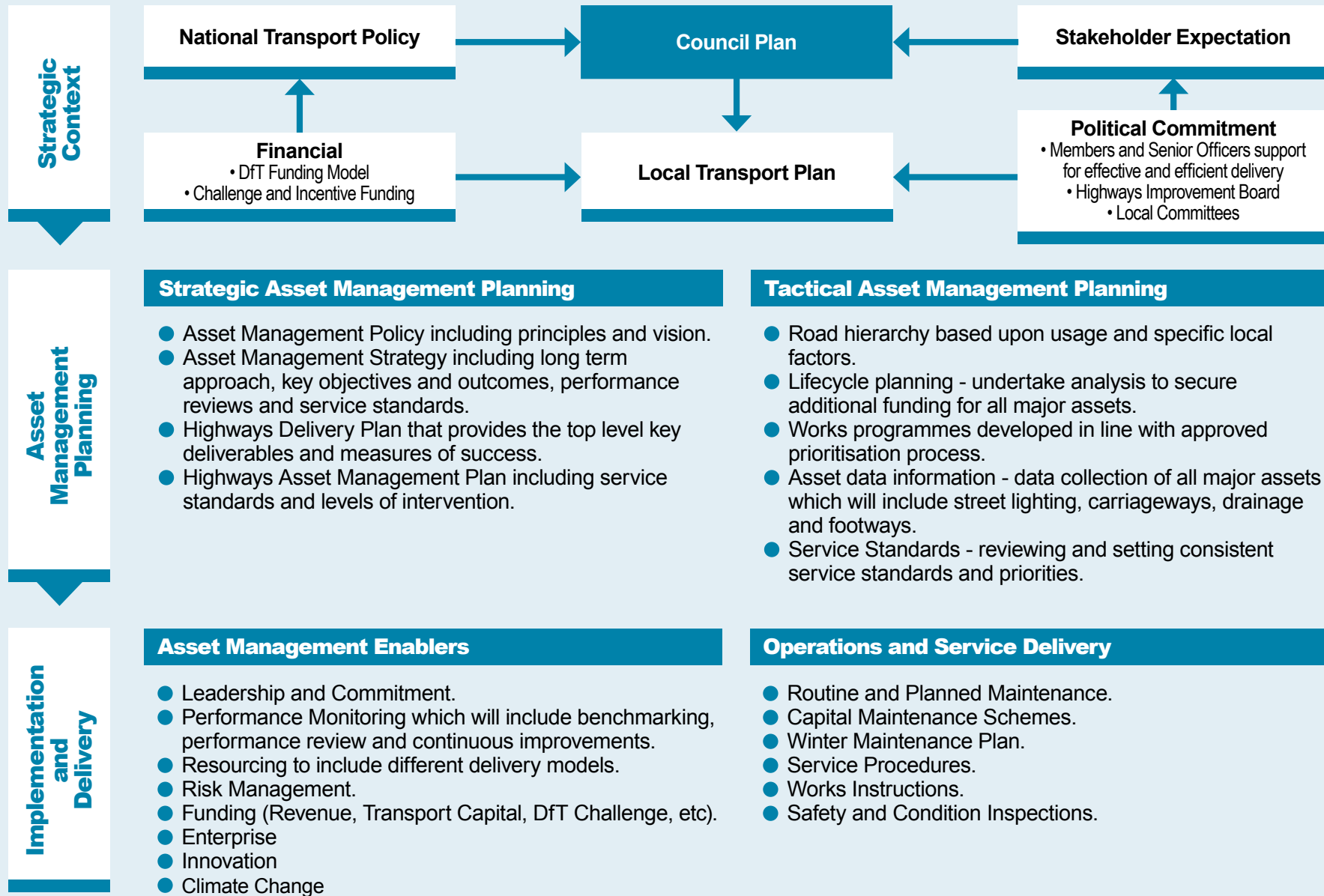


Table 1: Interrelationship between documents

Where we are now

Cumbria is at the forefront of national innovation, best practice and new ways of working. We work closely with Department for Transport (DfT); other government departments; Environment Agency and partners exploring and successfully securing funding and delivering infrastructure and flood recovery programmes of work.

We have achieved the top band recognition for Highway Authorities through the Department for Transport's Incentive Fund process.

Resilience

Cumbria has demonstrated strong leadership and crisis management through the delivery of major programmes of infrastructure repairs and improvements caused by extreme weather events over the last decade and a half. We have successfully managed these critical events and implemented infrastructure recovery plans using additional investment provided through close collaboration with



Cumbria's River Flood Monitoring System

Government Departments, and other partners. Our experience now places us at the leading edge nationally, in dealing with weather events and the subsequent recovery.

Following a number of adverse weather events we have taken the feedback from our workforce and partners to strengthen our knowledge and capability to improve the way we prepare and respond to future events.

We have developed and implemented a Resilient Road Network to help prioritise future investment decisions. As Lead Local Flood Authority, we have worked with partners, including Environment Agency, United Utilities and other groups such as Making Space for Water, to fully understand which of our communities are susceptible to flooding - and have been successful in securing additional funding to reduce flooding risk.

Data Sharing

Based on an assessment of the Council's key themes, our current position is that we recognise that a key improvement area is the availability of data and the provision of timely information to our customers. We have already introduced new improved ways of providing this information through increased data on our web site, through greater use of social media and engagement with Members and local communities.

Collaboration and Partnering

We participate in the national annual National Highways and Transport (NHT) survey which provides us with statistical valid sample data from our communities on the status of the highways service and benchmarking ourselves against other authorities.

We continue to work closely with our Members through the Local Committees to understand community concerns and recognise the need to keep Members informed. This links with our Customer Charter which is aimed at easing engagement for the customer.

A "Working Together" initiative has been developed and implemented which provides a foundation for working with Parish and Town Councils, through a signed protocol, to support communities to carry out maintenance works that are important to them.

We have well established working arrangements in place with national and partner organisations to share best practice and inform decision making (e.g. DfT, Highways England, Environment Agency, Utility Companies, Sustrans, Public Transport operators and Emergency Services).

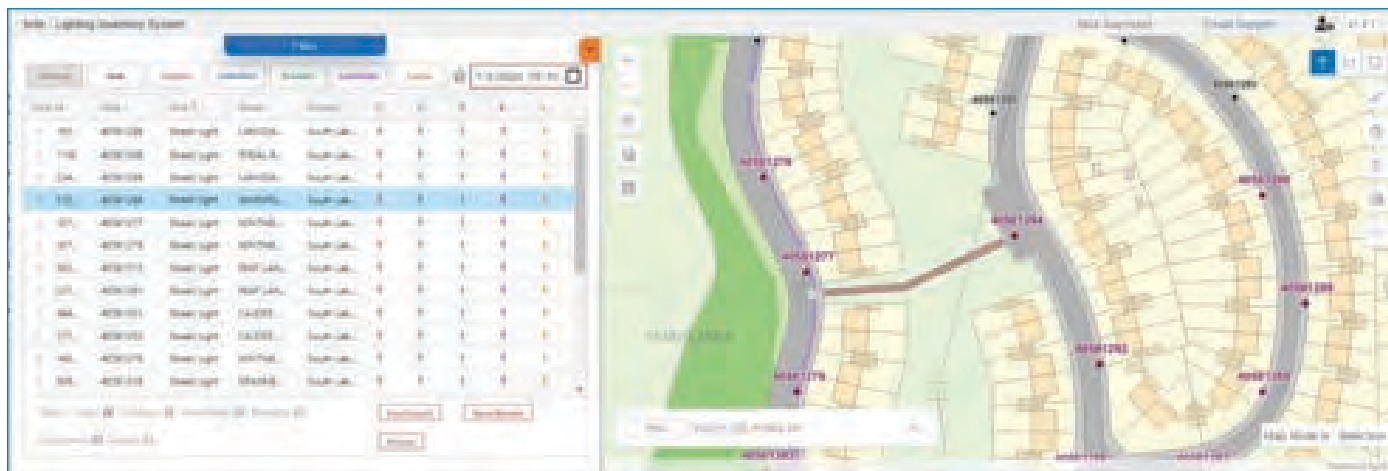
Innovation

The council is working with its supply chain to implement new materials for highway maintenance. There have been early successes in dealing with tar bound materials and trialling the use of plastic waste in surfacing materials. Cumbria is leading the assessment of the use of plastics waste in surfacing materials, as part of a Department for Transport Live Labs project.

We have implemented a new permitting scheme to manage and coordinate all highway and utility works on the highway network, which will help reduce delays caused by roadworks across the county. We are completing the implementation of a replacement programme for Road Lighting to LED fittings and have already realised significant energy savings, which by the end of 2020 will see 100% of the lighting stock converted to LED fittings.

We recognise the benefits of using social media to inform the public of planned works and especially during reactive events such as Storms Abigail, Desmond and Frank in 2015/2016, as well as the "Beast from the East" in 2018. Highways staff work closely with the Communications team to ensure meaningful information is available to the public. We are currently trialling a system to allow staff on the ground to initiate messages themselves in real-time.

We have reformed a number of our internal asset data collection and management systems that will contribute to further improvements.



Cumbria's Lighting Management System

This includes use of digital video surveys and analysis for the entire network; development of an adverse weather alert system for bridge monitoring during high rainfall periods and digital data capture, inventory and risk based approach for gully cleansing and many other operations. We have introduced the use of online GIS platforms and data sharing, both internally and externally, and have introduced smart technology on our gritter fleet to create a direct link between the salt spreading to forecast data and our new digitised routes. For all these initiatives, we have worked collaboratively with partners and ensured our workforce are fully consulted, trained and equipped to adapt to these new ways of working.

Efficiency

We have undertaken a comprehensive review of our supply chain frameworks for both professional services and works with both cashable and non-cashable savings being achieved.

We have reviewed a significant number of our working processes and have identified improvements that will enable the public and Members, to access more information, as well as being able to report issues to us in a more user friendly, and efficient way.

We have carried out a review of our identification, assessment and treatment for highway safety inspections in accordance with The Code. The new risk based approach is founded on asset use and not just classification of road.

Health, Safety and Wellbeing

We continue to embed a positive Health, Safety and Wellbeing approach with our workforce and contractors and have held a number of events to promote this important initiative. We continue to change and adapt our working practices in response to the changing security environment.



Sandylands, Kendal

Where we are going

We want to ensure our customers are at the heart of our service and recognise the improvements we need to make to continue to enhance the customer experience; keep our customers better informed and ensure our Members are briefed in a timely manner. We will make it easier for the customer to access information online, by phone and email. This will enable us to deal with problems on the network within agreed levels of service. Our staff will be provided with the right resources, skills and capability to carry out their roles effectively in a digital organisation.

We recognise the value of continuing to working with partner organisations and communities to achieve shared aspirations. We will make the most of the local knowledge of our Members and Local Committees to consider the priorities and aspirations of our communities.

We will work closely with Parish and Town Councils to further develop the “Working Together” project to support communities to undertake additional work on the highway within an agreed protocol.

We will work with partner organisations to keep Cumbria’s strategic network moving and to deliver joint initiatives for implementing flood prevention measures. We will explore opportunities for shared services with other authorities in Cumbria.

We will continue to work closely with the Department for Transport and other national organisations on new approaches, innovations and industry leading initiatives.

Exploring new ways to deliver services is a core value of the Council Plan and the service recognises the need to continue to develop this.

This will include a focus on:

- Innovation
- Enterprising and commercially aware approach including income generation
- Climate and environmental change

Focussing on our internal resources through a review that clearly promotes asset management and integrated delivery.

We will adopt early intervention and prevention strategies to keep our communities healthy, safe and connected. This includes:

- Safety
- Planning for Adverse Weather

We have a statutory duty to maintain and keep our highway network safe all year. We will embed a risk-based approach to safety inspections to ensure defects are repaired in a timely manner, to agreed service standards and response times to ensure the highway network is safe to use.

We will continue to promote a safe working culture for our workforce and contractors working on our network.

We recognise the importance of planning for adverse weather events by reviewing and implementing the winter service. We will continue to use community intelligence and data to develop early intervention strategies to prevent and minimise the impact of flooding.

In meeting our digital objectives, the three Key Deliverable’s we will focus on over the term of this Strategy are:

- Customer Access and Ease of Engagement for Customers
- Internal Systems
- Staff Connectivity

We will increase the number of online end-to-end application processes, ensuring our web site is up to date, accurate and user friendly. We will refresh our customer information and reporting systems by providing easy access online, by telephone through service centre, and email to ensure our customers can inform us of problems on the network and that we respond in a suitable and timely manner.

We will develop and improve key digital management systems such as inventory/data capture and management, payment processing, reporting performance management, works management and customer management.

Our staff will be provided with the right equipment to carry out their roles working in a digital environment using smart technology and we will develop cultural changes to embrace new ways of working. We will ensure our staff also have the right skills and training to maximise the benefits of working in a digital organisation.

Our Strategy to Manage the Main Asset Groups

Managing the highways network effectively is crucial for the Council and there are a range of challenges and opportunities which need to be considered in deciding how best to maintain and manage the asset in the most effective way. These are set out opposite:

- Cumbria has an ageing network, which needs careful management of appropriate interventions to deliver overall improvement;
- There are high public expectations about the condition and quality of the highway network and improvements in highway maintenance
- We are facing reduced levels of funding;
- Climate change is resulting in more frequent adverse weather conditions;

- Roads in poor condition are more expensive to maintain than roads in good condition, as they require more reactive repairs, such as pothole filling, to keep them safe and when larger repairs are delivered, the treatments required are more extensive and therefore more costly.

The highway network in Cumbria consists of a range of diverse assets. Table 2, overleaf, sets out the key asset groups and their extent across the county.



Thirlmere

Asset Type	Extent	Condition
Carriageway	7,947km	Overall the network is in average condition. This improvement reflects the increased capital investment in recent years.
Footways and Cycleways	4,957,599m2	Approx. 8% of the footway network is considered to require maintenance.
Structures – Bridges, Culverts and Retaining Walls	3,175	Bridges and structures are routinely inspected and maintained to ensure a steady state condition. This is achieved through planned, cyclic maintenance and reactive works as necessary. Large numbers of retaining walls within the county are still without condition data although a programme of retaining wall inspections has been initiated.
Drainage	151,187 Gullies	Approx. 3% of gullies are defective and require remedial works. The condition of other drainage assets in the county, such as pipelines and manholes, is still being gathered and is to be completed.
Road Lighting	44,611 Columns: 3,487 Illuminated Signs	The Column Replacement Programme replaced 10% of the ageing stock which posed the greatest risk. A further 15% remains in medium risk with 2% of stock becoming life expired each year.
Traffic Management Systems	102 Traffic Signal Controlled Junctions; 111 Controlled Pedestrian Crossings	Approximately 5% of the installations are in need of replacement, with a further 15% requiring significant maintenance.

Table 2: Cumbria’s Highways Asset Groups and their Condition

The key factor in being able to maintain the highway infrastructure efficiently by carrying out planned maintenance rather than reactive maintenance, understanding the condition of each asset group. By understanding the condition, we can determine how it is functioning, how it is being used and deteriorating, and thereby plan the optimum maintenance intervention.

We have implemented a road hierarchy, based on use and local factors as opposed to a traditional road classification approach. This will inform where we need to direct resources including the adoption of the Resilient Road Network.

The following sections provide a brief description of the condition of each of the main asset groups, with a statement of the desired outcome this strategy seeks to achieve, and the maintenance approach required to deliver each outcome.





■ A595 Moota

Carriageways

The length of adopted carriageway within Cumbria at over 7,900km, is one of the most extensive across the country. Table 3 below, breaks down the carriageway sections into classified, unclassified and pedestrian only routes. These lengths do not include the M6 and Trunk Roads in the county that are managed by Highways England. The council manages and maintains the majority of the highway network, from major roads through to minor rural roads. A small proportion of the network is managed by Connect Roads on behalf of the council under a Private Finance Initiative Agreement.

Road Classification	CCC Length (km)	Connect Roads PFI (km)	Highways England (km)
Motorways and Trunk Roads	7,947km		530
'A' Roads	674	157	
'B' Roads	589	0.4	
'C' Roads	2,352		
Unclassified Roads	3,799	0.5	
Unsurfaced	375		
Total	7,789	158	530
Combined CCC + Connect Roads	7,947		

Table 3: Carriageway (Highway Network) Lengths

Current Challenges

Carriageways are the most valuable highways asset in Cumbria and receive the greatest levels of maintenance expenditure. They were the first asset for which lifecycle plans were developed using current condition data to optimise investment. This has enabled a greater understanding of where to target investment to achieve the

desired levels of service. The Council has already implemented use of new surfacing products that aim to recycle materials to form durable construction materials. Lifecycle planning activities in terms of whole life carbon costs to be taken into account when determining interventions, materials and treatments.

Strategic Framework

The Council's refreshed asset management approach will be to target increased investment in the asset in order to prevent a return to previous levels of deterioration. We will continue to explore new technologies and materials, particularly the use of recycled materials (existing surfacing materials and remanufactured/enhanced surfacing products). We will also explore the inclusion of infrastructure that supports more environmentally sustainable transport while delivering maintenance schemes (e.g. electric charging points). To develop innovative techniques and greater use of technology to improve efficiency.

Quick Wins

- To sustain a steady state of condition with the highway asset:
 - 28% of unclassified roads requiring maintenance
 - 10% for non-principal roads
 - 4% for principal roads
- To introduce digital inspection technologies on high-speed roads across the county.

Within Strategy Timeframe

- The overall condition of the carriageway asset is improved in line with minimum whole life costs supported by appropriate levels of investment.
- The carbon footprint of the maintenance activities is reduced year on year and there is a move towards supporting environmentally sustainable transport modes.
- The Council has already implemented use of new surfacing products that aim to recycle materials to form durable construction materials. Lifecycle planning activities in terms of whole life carbon costs to be taken into account when determining interventions, materials and treatments.

Our Performance

Performance Indicator	18/19	19/20
% Principal Roads requiring maintenance (lower is better)	3%	4%
% Non-Principal Roads requiring maintenance (lower is better)	9%	10%
% Unclassified Roads requiring maintenance (lower is better)	28%	28%

Footways and Cycleways

Footways and cycleways provide safe and convenient access for a range of essential journeys to access work, shops, schools and leisure activities. While many of them will be found in the urban areas, footways are also critical in rural areas in providing safe access to key services and linking villages. Footways and Cycletracks are key assets in the sustainable transport agenda and enabling people to choose modes of transport that have positive health impact and minimal carbon impact.

Current Challenges

Detailed condition surveys of the highway footways and cycle ways have recently been undertaken, and the condition of our footways and cycleways is now fully understood. A review of the condition data is underway to develop lifecycle plans for these assets along with a targeted approach to improve the condition of the asset using a risk based approach.

Strategic Framework

To interpret the condition data to effectively develop lifecycle plans and forecast the appropriate intervention levels for each footway and cycleway. To develop innovative techniques and greater use of technology to improve efficiency.

Quick Wins

- To maintain a steady condition state.
- To introduce digital inspection methods to speed up walked inspections.

Within Strategy Timeframe

- To improve the overall condition of footways and where necessary adopt a preventative approach to surface treatments.
- Increased usage of the asset to support health and wellbeing of communities and increased levels of walking and cycling across the county to support the visitor economy and reduced carbon footprint. Increase the length of available off-carriageway routes.

Our Performance

Performance Indicator	18/19	19/20
% total footway requiring Maintenance (lower is better)	8%	8%





Structures

The Council is responsible for more than 3,000 bridges and other structures across the county consisting of around 1,800 highway bridges, 900 large culverts, 500 retaining walls, 14 sea walls, and 250 cattle grids. These are vital to maintaining accessibility, helping to connect communities and support the economy, which became very apparent both during and after the serious flooding events experienced across Cumbria, in recent years.

Current Challenges

Maintaining these structures is a significant challenge especially with the threat of ever increasing river levels as a result of climate change, the effect of which was witnessed in December 2015 when Storm Desmond caused widespread damage across the county. However, through a comprehensive programme of bridge inspections, including underwater surveys, a prioritised maintenance regime aims to mitigate the risk associated with such events. By carrying out maintenance works in a timely manner before defects become significant, budgets can be used more effectively to provide greater longevity. Detailed asset datasets exist for the all structures - the exception being retaining walls.

Strategic Framework

We need to maintain the safety of structures whilst making steady progress in addressing structures where strengthening is desirable, utilising bridge condition, scour risk and route priority as determinant factors. Following Storm Desmond in 2015 a significant number of bridges were rebuilt, strengthened, repaired or protected to make them better able to withstand such extreme weather events. This theme will be continued with increased levels of funding to minimise the impact on the operational highway network, particularly as climate change effects become more prevalent.

Quick Wins

- To maintain the asset as ‘fit for purpose’ and ‘safe for use’
- Target and maintain the existing BSCI scores
- Alleviate any culverts that are causing flooding to third parties
- Mitigate any risk from road over rail vehicle incursions

Within Strategy Timeframe

- To maintain a safe asset and ensure the movement of people and goods efficiently round the county, keeping communities connected.
- Have an asset stock that minimises flood risk and is resilient to the challenges of more extreme weather events.

Our Performance

Performance Indicator	18/19	19/20
BSCI average rating (Higher is better)	81.3%	81.1%
BSCI critical element (Higher is better)	69.4%	68.3%





Victoria Bridge



Bell Bridge



Staveley Bridge

Drainage

Cumbria County Council is the Lead Flood Authority with responsibilities for managing flooding from local sources, namely Ordinary Watercourses, surface water (overland runoff) and groundwater in the area.

Through a Cumbria Strategic Flood Partnership, we are working together with District Councils and other relevant organisations to steer local flood risk management activities in Cumbria.

Partnership working between the County Council, Risk Management Authorities, other relevant organisations and local communities is key to managing flood risk in the future, funding future flood schemes and helping communities to become more resilient to flooding.

Current Challenges

Whilst asset data exists with regard to the majority of highway gullies, information on the associated outfall systems of various types is still not fully understood. This creates significant risk in understanding where drainage discharges from the highway. The collection of this data is very expensive and Cumbria has therefore adopted a risk-based approach and is gathering it by introducing new asset management software that enables collection of this data while carrying out maintenance activities.

Strategic Framework

A strategic and risk based approach will be adopted to determine where intervention is needed most. We will continue with the long-term programmes that invest in drainage works, which will prevent major maintenance on other assets and provide a more resilient network for users. The current gully cleansing operating model is under review with the aim of using technology to improve flexibility, quality and responsiveness to local need ensuring maintenance work is appropriate and risk based rather than a “one size fits all”.

Quick Wins

- More closely integrate the separate drainage inventory into the asset management system to support the risk based maintenance approach.

Within Strategy Timeframe

- To meet statutory duties and maintain a safe highway by continuing to assess and prioritise high risk flooding issues and programme them accordingly

Our Performance

Performance Indicator	18/19	19/20
% Highway gullies that are free flowing and clear of obstruction (PP)	78%	80%





Kendal

124

124

124

TO LET
ALL
ENQUIRIES
C&M

EVANS
CYCLES

EVA

CLEAR

Road Lighting

Cumbria County Council currently maintains 44,611 road lighting columns, as well as over 4,000 other electrical units. A significant number of the columns are in need of replacement to reduce risk. There is an ongoing programme to deliver column replacement and extend levels of low energy lighting.

Our current lighting asset is set out below:

Asset Type	Quantity
Lighting Columns	44,611
Illuminated Signs	3,487
Illuminated Bollards	466
School Flasher Units	106

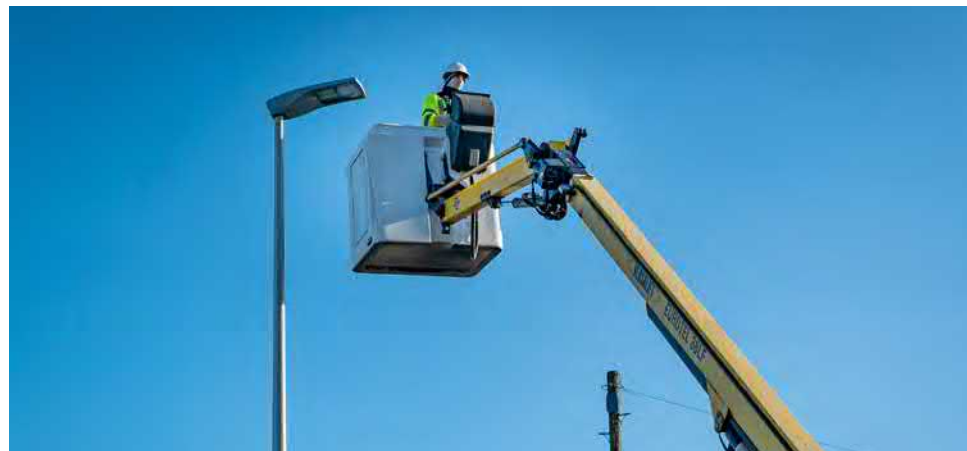
Table 4: Lighting Assets

The Council has previously embarked on a three year £5.3m capital programme to deliver significant improvements to the lighting asset by replacing 41,000 high wattage main road lanterns, which is due to complete during 2020. We have invested £8.3m from the capital programme to replace 4,100 life expired columns. Of the lanterns replaced countywide more than 37,000 are now dynamic lighting units that dim the lighting levels according to use. This has reduced energy costs and carbon emissions, saving more than £1m per year. In the future all new lanterns will be LED and dynamically switched.

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Botchergate



Current Challenges

Our challenges are the need to reduce energy costs, provide effective lighting systems and maintaining these systems in the most cost effective way.

Strategic Framework

We are currently completing a comprehensive update of the lighting asset on our asset management system to produce consistent statistical reports for stock levels and service performance; and to record energy levels. We will also continue with the column replacement, LED and dynamic lighting programmes. We are currently reviewing externally lit signs to reduce the number of separately lit units and declutter the asset stock.

Quick Wins

- Develop and seek approval for a comprehensive column replacement programme.
- Complete the joint working agreement with all district and parish councils in Cumbria.

Within Strategy Timeframe

- To adopt the well managed highway infrastructure code of practice covering road lighting.
- To move from a reactive maintenance regime to a planned, sustainable asset management based approach.
- To continue to improve the lighting asset, resulting in reduced operating costs and carbon emissions.
- To further explore new and innovative technologies that may reduce maintenance liabilities; make better use of the asset to support the emerging digital agenda or provide vital services for communities.
- Support the Council's asset management aims of safety, innovation and sustainability.

Our Performance

Performance Indicator	18/19	19/20
Number of street light columns in excess of the action age (lower is better)	2%	2%
Kilowatt hours	9,00,000	8,500,00
Carbon used	2,619	1,777

Traffic Management Systems

Traffic signal junctions are vital to manage traffic on the urban roads and many of our town centres have an Urban Traffic Control System to coordinate the junctions. In addition, the signalled pedestrian crossings provide safe crossing points for vulnerable road users to both improve safety but also maintain their independence.

Current Challenges

Underinvestment in the existing infrastructure in the past has left a number of sites needing refurbishment. Capital investment in recent years has helped to control this aspect and continued investment to bring sites up to date is still required. A small team and a large County can result in issues providing resilience to the management of the signals throughout Cumbria.

Strategic Framework

To continue to build a better quality level of infrastructure for the County and improve communications to the sites allowing remote monitoring and management to take place. Review staffing levels and roles to improve resilience and to enable the progression of improvement works.

Quick Wins

- Refine the lifecycle model demonstrating funding requirement for various performance outcomes

Within Strategy Timeframe

- Continue to improve the infrastructure asset quality.
- Increase the number of sites that are monitored remotely.
- Assess critical issues likely to impact the systems in order to reduce the reactive response.

Our Performance

Performance Indicator	18/19	19/20
Number of Signal Controllers (Junction and Pedestrian crossings) in excess of action age (Lower is better)	3%	3%





The Glebe,
Bowness on Windermere

Our approach to meeting our objectives

Our approach is set out in more detail in our Highway Asset Management Strategy Delivery Plan.

By adopting an asset management led approach to highway maintenance, we will continue to maximise the investment available to improve the condition and longevity of the asset.

- We will improve the information we provide to our customers in a more user-friendly format and we will seek feedback through satisfaction surveys on the improvements we implement, along with regular dashboard reporting on the overall performance of the service.
- We will ensure that any information on programmed works being carried out is shared with local Members and the public in a more timely manner.
- We will work with Parish and Town Councils and community groups to deliver “Working Together” agreements on projects.
- We will explore opportunities to collaborate with other agencies and partners to share best practice and influence national decision-making.
- We will develop and implement innovative ways of working to deliver an enterprising and commercially aware approach.
- We will always consider new opportunities to procure, manage and deliver highway services; review our processes and be receptive to challenge on how efficient we are.
- We will secure additional funding and reduce the impact of climate change and adverse weather events.

- We will further embed our risk-based approach to managing our assets ensuring that the most appropriate early intervention is carried out in a timely and efficient manner. We will implement new systems to ensure defects are repaired to agreed service standards and response times.
- We will implement new innovative systems to improve our digital offer to customers ensuring our web site, social media content and other digital formats are fit for purpose.
- Staff will be upskilled to use the new innovative systems to the best effect and act as digital champions for our service, helping customers improve their digital skills so they can benefit from our improved offer.



Workington town centre



Climate Change

We are all well aware of the effects of climate change on our environment and we will ensure that all mitigation measures are considered when dealing with the direct and indirect impact of highway maintenance on the environment and our communities.

Consideration of whole life carbon costs; appraisal of materials, products and treatments for maintenance for environmental impact, nature conservation and biodiversity; and risk assessment and mitigations for the effects of extreme weather on highway infrastructure assets (Climate Change Adaptation).

We take into account the following issues when considering our approach to highway maintenance:

- Carbon costs and energy reduction
- Noise
- Materials utilisation
- Waste management and recycling
- Air quality and pollution control
- Nature conservation and biodiversity
- Environmental intrusion

Highway maintenance sustainability links to the wider environment and sustainability principles and outcomes of Cumbria County Council, our stakeholders and partner contractors.

Our key focus for responding to climate change includes the following:

- Using intelligence and data to improve our ability in planning for and responding to seasonal and adverse weather events
- Working with partners to improve air quality and reduce carbon footprint
- Explore opportunities for Electric Vehicle charging points and
- Increase usage of environmentally friendly and recycled materials



■ BridgeCAT



Data Management

We undertake a risk-based approach to asset management utilising the extensive knowledge of the various elements of the highway. We retain that knowledge through our maintenance of validated inventories which are available to users throughout the full decision making cycle.

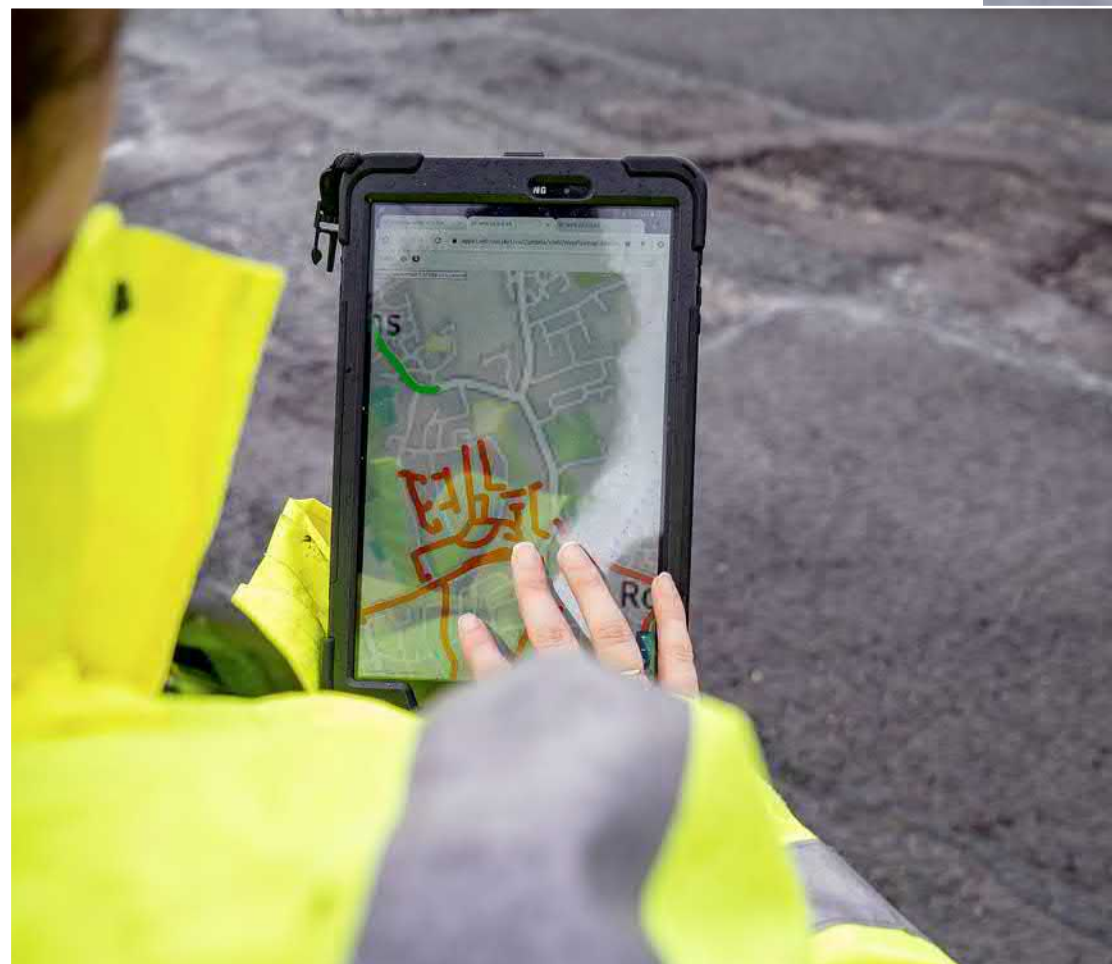
The council collects data across the full spectrum of highway assets, including:

- Carriageways
- Footways
- Structures
- Lighting columns and associated electrical apparatus
- Road gullies, associated pipework and chambers
- Trees, vegetation and associated green space (ecological concerns)
- Safety barriers and fences

This data is collected and recorded in centrally managed databases that provide an accessible, and singular, version of the assets condition and other information.

Through this asset management approach, we will continue to maximise the investment available to improve the condition and longevity of the asset.

We will continue to review the data recorded as well as the frequency and the manner in which it is recorded.



■ Condition and Safety Inspection



Barrow



Lifecycle Planning

Life cycle planning comprises the approach to the maintenance of an asset from construction to disposal. It is the prediction of future performance of an asset or a group of assets based upon investment scenarios, usage and maintenance strategies.

Typically, there are five stages to the life of an asset:

- Creation / acquisition – a new asset as a result of a new development or Capital Project .
- Routine maintenance – cyclic and reactive maintenance designed to maintain the asset in a serviceable condition.
- Renewal/ replacement – major work required when cyclic maintenance / reactive works are unable to sustain the asset to the required standard.
- Upgrading – improvement to an asset to meet increased demands.
- Disposal – decommissioning of an asset when past its economic life.

The ability to make the right decision at the right time is the key to effective lifecycle planning. Using the data available will ensure that the asset will provide the expected level of service over its expected life span at the most efficient cost. To support that, we will:

- Increase our knowledge of the asset through continual survey work.
- Cyclic maintenance to repair minor faults.
- Develop a medium/long term programme for major work to sustain the asset for its full life span.





North Road, Barrow

Best Practice and Performance Monitoring

We will continue to adopt a performance management framework, which will be measured and reported regularly internally and published on our website.

Cumbria County Council is committed to the development of good practice, innovation and continuous improvement having already played a key role in the development of a number of initiatives at both a regional and national level.

We are committed to sharing knowledge and experience in implementing asset management with other Highway Authorities across the Country and are active members of the following:

- Local Council Innovation Group (LCRIG)
- DMG Benchmarking Club
- NHT Survey
- CQC Efficiency Network
- CIPFA HAMP Network
- ADEPT Asset Management Board
- UK Roads Liaison Board
- National Traffic Managers Forum
- HAUC





Skirsgill

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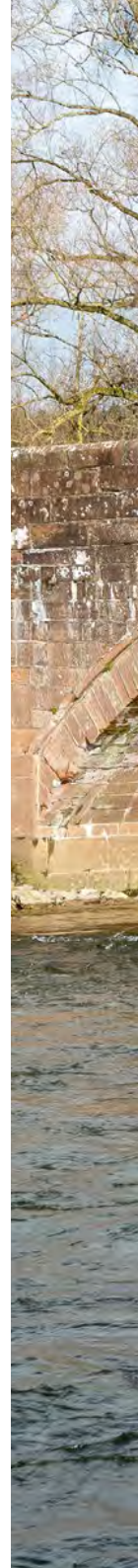
Delivering the strategy & measuring our success

This document is supported by a Highways Asset Management Strategy Delivery Plan, which provides the top-level key deliverables and measures of success and a refreshed Highways Asset Management Plan (HAMP) including policies and guidance, service standards and levels of intervention in respect to the Council's legal requirements and its service provision.

To ensure we are getting it right, we will ask our customers for feedback. As part of the NHT survey, we receive and assess feedback of an annual survey of households that focusses on all highway aspects and compares our performance to other authorities nationally. This is important to us and enables us to compare our improvements to other similar authorities.

We also undertake customer satisfaction surveys and seek feedback on all aspects of highways asset management and delivery.

We will continue to review our progress against this plan using a clearly defined set of performance management measures and targets to ensure we continue to deliver best practice and improve our performance. We will use our assessments of our progress to consider where changes are required, and to ensure that we continue to improve as a high performing highway maintenance service provider.





■ Brougham Old Bridge

