Cumberland Council

Cumberland Highways Infrastructure Asset Management Plan (HIAMP)

2026-28

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Contents

1. Introduction

1.1. Purpose

This Highway Infrastructure Asset Management Plan (HIAMP) has been developed to demonstrate how the planning and delivery of highways operation and maintenance supports the delivery of Cumberland's Highway Asset Management Strategy (HAMS) and the achievement of the associated asset management objectives.

The HIAMP also seeks to align and direct the work of the council's delivery partners, and inform stakeholders of processes and plans for identifying, prioritising and delivering works.

Finally, the HIAMP identifies any constraints, challenges and areas for future development or improvement.

1.2. Scope of document

The scope of the HIAMP is all activities associated with the maintenance and renewal of the range of assets identified in the HAMS.

47% of Cumberland's 'A' roads are operated by Connect CNDR Ltd under a 30-year PFI contract that runs to 2039. Cumberland Council remains the highway authority and provides the funding for the PFI network which covers elements of the A595, A596, A689, A6071 and A7; the PFI contract and supporting documentation rather than the HIAMP describe the service standards and approach to asset management for those roads. The Carlisle Southern Link Road (CSLR) will be fully open to traffic during 2026 and will become part of the Council's highway network.

2. Policy / Guidance Framework

Cumberland's approach to asset management has been developed to support and align with a range of national and local policies, objectives and best practice. This HIAMP sits within the wider framework of documents, processes, and procedures that form a coherent system for the application of asset management with a clear line of sight from strategic objectives to policy goals and investment priorities, as described in Figure 1 below.

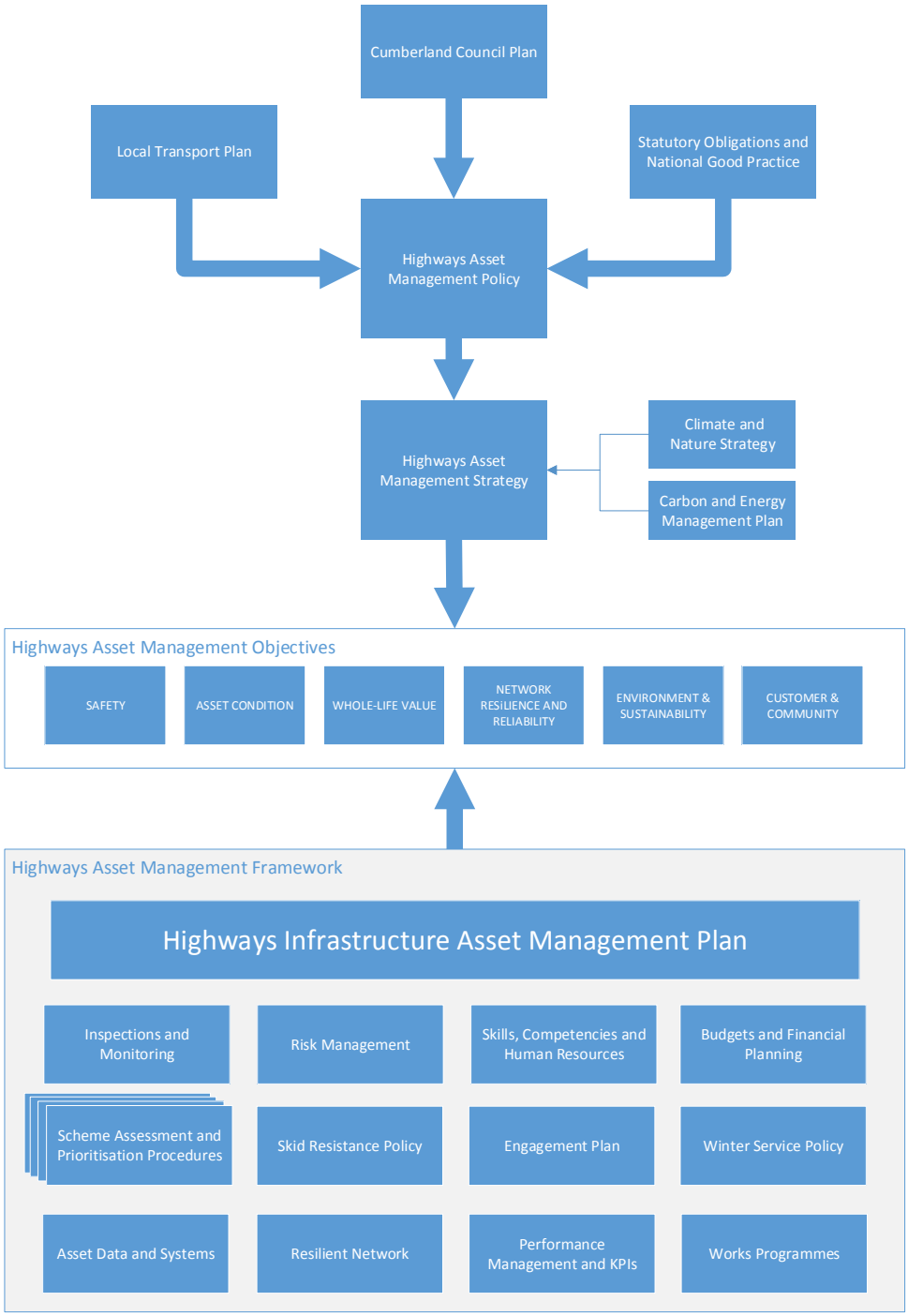

Figure 1: Highways Asset Management Framework

In addition, planning and delivery of works follows established standards and good practice, such as those set out in Well-Managed Highway Infrastructure.

The relevant legislation, national guidance and standards and local policies are listed in Annex A. Together, these policies, plans and guidance and enablers constitute the framework for highways asset management in Cumberland.

3. Cumberland Highways

3.1. Structure and Resources

The highways function in Cumberland is split into three service areas:

- Infrastructure Planning & Transport,
- Highways Asset & Strategy and
- Highways Delivery.

The responsibilities of the three teams with respect to highway asset management are shown in table 1 below. Together they cover the full lifecycle of the highway assets.

Infrastructure Planning & Transport	• Infrastructure planning – early scheme development, pipeline creation, preliminary design, client role, funding management. • Transport planning & policy – Local Transport Plans (LTP), strategic cycling infrastructure, LCWIPs. • Public transport – bus infrastructure (shelters, stops), asset surveying, improvement programmes. • Flood & coastal risk management – schemes funded by Environment Agency, responsibilities for drainage, pumps, basins. • Development management – responding to planning applications from a highways perspective (i.e. Section 278/38 agreements, commuted sums).
Highways Asset & Strategy	• Highways Asset & Strategy covers carriageways, footways, cycleways, road restraint systems, safety inspections, signs, lighting, drainage, trees, and data management. • Surveys and data collection, lifecycle planning, programme development and scheme prioritisation. • Traffic management – traffic signals, road safety, streetworks. • Carbon reduction. • Bridges & structures, and geotechnical assets have dedicated leads, but data coordination sits with Asset & Strategy.
Highways Delivery	• In-house operational service and network management. • Highways engagement • Winter service • Commercial and adoptions • Construction Team • Oversight of Section 38/278 work, scheme design sign-off, and asset links. • The structure is moving from siloed teams to a single functional highways delivery team.

Table 1: Responsibilities of teams in respect of Highway Asset Management

3.1.1. Delivery Partners

Cumberland uses external service providers to deliver a number of the highway asset management activities, alongside the internally provided services. These include:

- Road surfacing contractors (e.g. DSD Construction, Kiely Brothers).
- Survey companies and software providers (e.g. WDM, Vaisala).
- Technology service providers (e.g. Telent).
- Verge maintenance service providers.
- Resilience support providers.

3.2. Stakeholders

There is a wide range of external stakeholders that are affected by, or have an interest in, highway asset management in Cumberland. These include, but are not limited to:

- LDNPA (Lake District National Park Authority).
- Local Parish/Town Councils, Community Panels.
- Emergency services.
- Stagecoach.
- Cumbria Tourism.
- Northern Rail.
- National Highways.
- Local Resilience Forum.
- Making Space for Water.
- Utility Companies.
- Neighbouring Highway Authorities including National Highways.
- Environment Agency.
- Freight Transport/Road Haulage Associations.

The approach to stakeholder engagement and consultation is described in Consulting and Informing People Procedure (ref 12.006).

4. Managing Cumberland's Highway Assets

4.1. Levels of Service and Targets

The HMEP/UKRLG Highways Asset Management Guidance, which sets out good practice for local authorities for asset management of road networks defines Levels of Service as "broad statements that describe the performance of highway infrastructure assets in terms that stakeholders can understand. They should relate to outcomes and cover key aspects of asset performance such as safety, serviceability and sustainability. They should consider the performance of the whole network rather than that of individual assets."

The Levels of Service are closely related and aligned to the Highways Asset Management Objectives and are supported by a range of asset-level Service Level contributors and a suite of KPIs with, where appropriate, targets that can be used for setting budgets and determining future funding needs. There are a number of cross-cutting themes that inform the definition of service levels. Figure 2, below describes the Council's highways service levels in the context of the Highways Asset Management objectives, supported by a range of KPIs and targets.

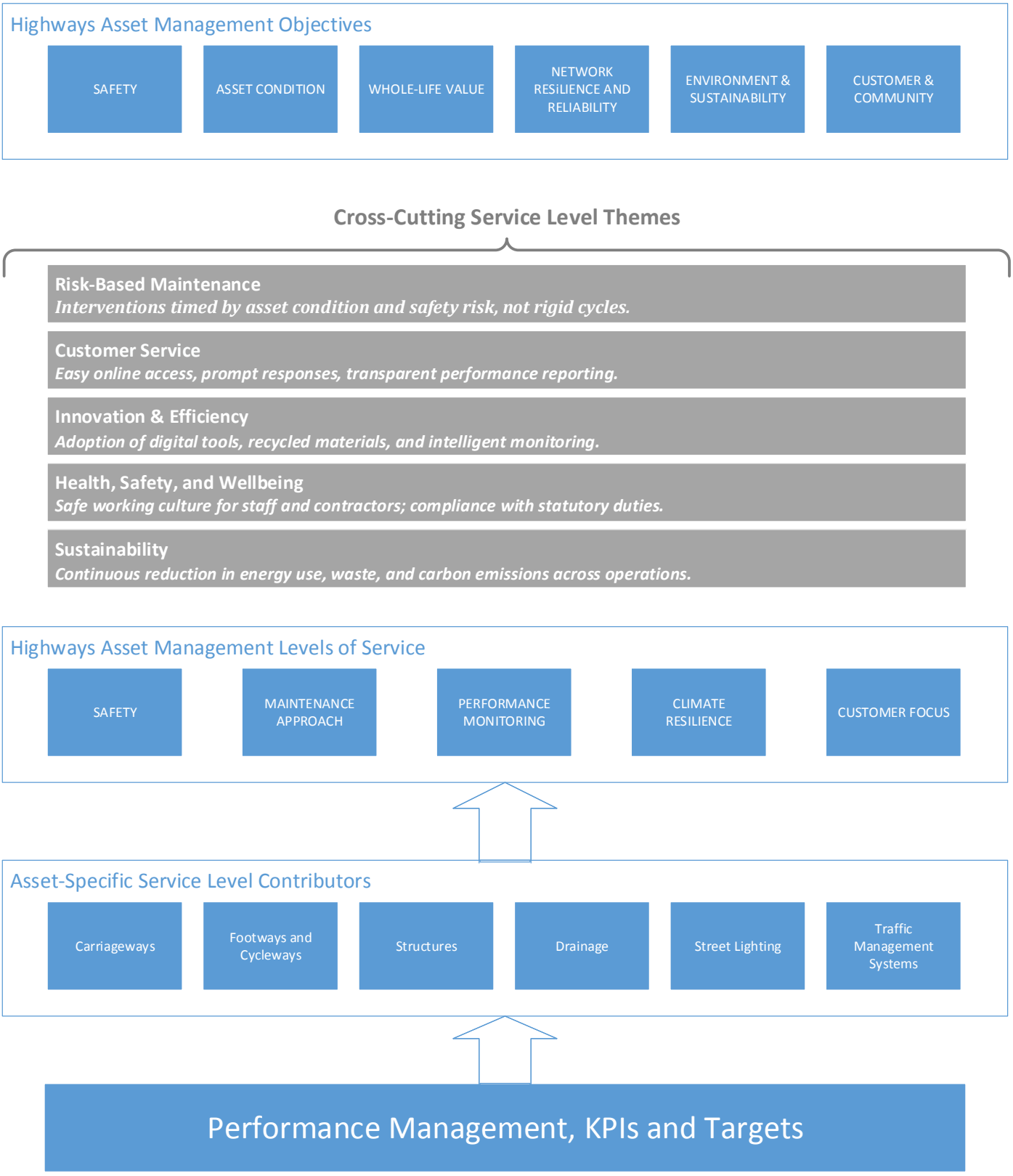

Figure 2: Service Levels and KPIs

Service Level	Description
Customer Focus	Timely and appropriate response to reported defects; improve accessibility via online and phone reporting systems. Faster communication with the public and Members; transparent reporting and engagement.
Safety	Risk-based inspections and defect management to prioritise and respond defects and other issues within explicit response times.
Maintenance Approach	Prioritise planned, preventative, and cyclic maintenance, carrying out reactive works only when unavoidable; maintaining serviceable condition within budgets.
Climate Resilience	Reduce carbon footprint year-on-year in maintenance operations. Considering sustainability in material selection and design.
Performance Monitoring	Benchmarking through NHT, ADEPT, LCRIG, etc.; publish performance annually. Continuous improvement via comparison and innovation.

Table 2: Service Levels

4.2. Network Hierarchy

In order to prioritise the management of the highway network, a hierarchy has been established in accordance with Well Managed Highway Infrastructure: A Code of Practice, which categorises roads, footways and cycleways in terms of their function and need. Amongst other things, this is used to determine the frequency of inspections and the investigation levels for defects. Details of the network hierarchy are provided in the **Highways Condition and Safety Inspection Procedure (ref 08.043)**. Public Rights of Way (PRoW) have a hierarchy used to determine inspection and maintenance regimes, documented in a separate procedure, **Hierarchy and Maintenance of Public Rights of Way in Cumberland (ref 08.030)**

4.2.1. Resilient network

In addition to the network hierarchy, a resilient network has been identified which comprises key roads that are maintained during extreme weather, including periods of flooding, extreme heat, cold, snow and ice. The resilient network has been designed to ensure continuity with the resilient road networks of neighbouring councils and links to motorways and major roads that are the responsibility of National Highways. This network will be regularly reviewed.

4.2.2 Winter service network

Cumberland's **Winter Service Policy (September 2023 - April 2028)** defines the approach to maintaining the Cumberland network during winter. The aim is to ensure safe and reliable travel "as far as reasonably practicable" during ice and snow.

A risk-based approach is taken in line with the national code of practice Well-Managed Highway Infrastructure. This means that not all roads can be treated, and routes are prioritised for treatment as follows:

Primary Routes	Key strategic roads (Resilient Road Network, A-roads, non-trunk motorways).	Pre-treated before ice or snow, usually before the morning rush.
Secondary Routes	Important local roads or known problem areas.	Treated after primaries, or alongside them if severe weather is forecast.
Remaining Identified Routes	B roads, village access, school routes, hospitals, bus stations, employment centres.	Treated only in prolonged bad weather, during daylight, once primary/secondary routes are safe.
Urban Footways	Shopping areas and busy pedestrian zones.	Treated only in prolonged severe conditions, during daylight hours.

Table 3: Routes Prioritisation

4.3. Inspections, Data and Systems

In order to determine the condition of the highway assets, a range of surveys and inspections are undertaken.

4.3.1. Safety and Condition Inspections

Regular safety and condition inspections are undertaken of all adopted footways, carriageways, street furniture, trees and verges which are maintained by the Council as well as surfaced urban public rights of way. The purpose of these inspections is to identify and prioritise safety defects to ensure the network is safe and serviceable for users. Information of condition is used to identify works to maintain or extend the life of the asset.

Inspections are either walked or driven. Inspectors use a data capture device to record defects in relation to a risk-based investigatory level that is used to determine the response time (i.e. emergency, 5-day or 20-day response). In addition to any defects that are recorded, the inspectors also give each section of carriageway and footway an overall condition rating. This rating is used, alongside other information, to identify future maintenance schemes.

In the case of driven inspections, the Vaisala RoadAI system is used to help identify defects, and for the defence of claims, carriageway condition assessment, sign inventory and condition data for road lines and markings.

Full details of the safety and condition inspections are provided in the **Highways Condition and Safety Inspection Procedure (ref 08.043).**

4.3.2. Asset Condition Surveys

The following routine asset condition surveys are undertaken:

Asset type	Surveys	Relevant standards/ procedures
Carriageways	• SCANNER (Surface Condition) and SCRIM (Skid Resistance) surveys are carried out on A and B and C Roads • Vaisala RoadAI (defects and surface condition) surveys are carried out on all roads, including unclassified roads (see detail above) • Detailed site investigations are undertaken on planned schemes in the forward programme as required (e.g. coring, Light Weight Deflectometer, Dynamic Cone Pentrometer, trial pits etc.)	• Countywide Survey Programme: Scheme assessment and prioritisation methodology (ref 13.003) • Prioritisation of carriageway surface treatments and structural maintenance (ref 04.012) • Highway Skid Policy (ref 04.005) • Highways Condition and Safety Inspection Procedure (ref 08.043)
Footways	• Condition and Safety inspections - see above, supplemented with Gaist surveys, primarily on Urban Footways.	
Signs	• Vaisala RoadAI (defects and condition).	
Road Restraint Systems (RRS)	• Routine visual inspections.	• Road Restraint Systems – scheme assessment and prioritisation methodology (ref 13.011)
Drainage	• Gullies, drains, culverts, ditches, soakaways etc. inspected/cleaned based on flood risk. • Soakaways inspected at least every 5 years. • Balancing ponds inspected annually.	• Highway Gully Cleaning and Drainage Asset Management (ref 03.004) (under review).

Asset type	Surveys	Relevant standards/ procedures
Geotechnical	• Routine slopes - periodic visual checks during highway inspections. • High-risk/problem slopes - more frequent, formal inspections by geotechnical specialists	• Slope - Geotechnics scheme assessment and prioritisation methodology (ref 13.007).
Highway Trees	• Urban roads, car parks, grounds of CCC buildings: Walked survey using QTRA every 2-3 years. • Rural priority gritting routes and • Other roads/areas: Drive-by inspection due to Ash Dieback on a Flexible schedule, denoted by risk • Ad hoc/ reported issues – trained Network and Safety Inspectors staff – referred to Tree Officer if required.	• Tree Management (ref 08.038) • Quality Tree Risk Assessment (QTRA) (trained staff only).
Public Rights of Way	• Routine inspection on a six-year parish-based cycle.	• 08.030 Hierarchy Maintenance of Public Rights of Way.
Bridges and structures	• General Inspections – carried out 2-yearly by internal inspectors in line with national standards • Principal Inspections – carried out 6-yearly by external inspectors • Reactive inspections following water level exceedance. • Special and emergency inspections following vehicle collisions, etc. • Underwater inspections – as required. • Structural Assessment – assessing capacity. • Scour assessments – assessing scour risk of relevant structures.	

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Retaining Walls	• Risk based approach with ad-hoc inspections following any issues raised during maintenance.	
Road lighting and illuminated signs	• Risk-based response times. • Monitoring for outages and Emergency faults reported by public. • Lighting measurement – e.g. following night-time fatal collision. • Visual inspections – structural condition recorded during maintenance. • Structural testing of columns – risk-based strength testing.	• Road lighting policy. • Road lighting maintenance plan. • BS7671 Requirements for Electrical Installations.

Asset type	Surveys	Relevant standards/ procedures
	• Electrical testing – carried out 6-yearly. • Inspection in accordance Lighting Professionals' Guidance Note 22 (GN22), Asset-Management Toolkit: Minor Structures scores and inspections.	
Traffic Signals	• Annual and 6-monthly inspections undertaken by Telent under service contract. • Additional ad-hoc inspections undertaken by in-house inspectors.	

Table 4: Asset Condition Surveys

4.3.3. Highways Information Asset Management Systems (HIAMS)

The HIAMS is used as the main asset information system, including the Pavement Management System (PMS) and Structures Management System (SMS). The HIAMS includes information about asset inventory, and is used for managing inspections, defects – including those raised by the public, as well as from safety inspections - and reactive maintenance. HIAMS includes a Data Viewer that is used to provide access to asset information internally and is also used for performance reporting and provides PowerBI dashboards of numbers of defects, response times, etc.

The PMS and SMS hold data from carriageway surveys and structures inspections that are used for scheme identification and prioritisation and for reporting on asset performance.

The NSG system (NSG Manager) provides proven functionality to update and maintain our highway network. This is a statutory function for every local authority or highway owner and a monthly submission is submitted to Geoplace. NSG Manager is fully compliant to update and export data from the NSG hub in the latest national current format (DTF 8.1). This enables HIAMS to display a wealth of information such as ownership, special surfaces, height and weight restrictions, traffic sensitivity and much more about the network.

NSG Manager allows authorised Cumberland users to add and update Street records and additional data (AD) to the latest specification. All changes are fully audited, and options are available to export all data or a subset limited to a specific Highway Authority and/or District. Cumberland Council received the Platinum Award for Street Data in 2024 and 2025.

Work is ongoing to migrate all existing data – some of it currently in the form of paper records – into the HIAMS. Some records are also held electronically on SharePoint.

The IMTRAC system is used to manage the maintenance and operation of traffic signals. IMTRAC tracks the age of signals assets and helps prioritise replacement. UTC (YUNEX) and RMS (TELENT) are used for operational elements.

For drainage, a mobile asset management system (KaarbonTech Gully Smart) is used to record gully cleaning activities and risk ratings. It is also intended to store as-built drainage data from new schemes, updates from investigations (CCTV surveys, LLFA projects, flood relief work) and digitised records from paper/AutoCAD plans and historical surveys. The system integrates with other council asset systems such as HIAMS (Highways Asset Management System), which already holds some structures and gully information.

The Kaarbontech system (TreeSmart) is used for the collection and monitoring of tree condition data and assists in the management of risk.

4.4. Risk Management

Well-Managed Highway Infrastructure recommends that highway authorities should adopt a risk-based approach to the asset management of their highway infrastructure, covering all aspects including setting levels of service, inspections, responses, resilience, priorities and programmes and investment planning and budget setting.

Cumberland's approach to risk management covers a broad range of risk categories:

- Safety;
- Reputation;
- Asset loss or damage;
- Service reduction or failure and network resilience;
- Operational;
- Environmental;
- Climate;
- Financial; and
- Contractual.

Risks related to the highway network are managed in accordance with Cumberland's Risk Management Framework, and a risk register is held and regularly updated for Highways and Transport, assigning owners and leads for each identified risk, and risk ratings with and without control and mitigations. The risk rating is derived from the council's 5x5 risk matrix which scores both Likelihood of Occurrence and Quantum of Negative Impact to derive a risk rating and RAG (Red/Amber/Green) score.

The maintenance hierarchy and resilient network also provide a mechanism for identifying and prioritising interventions on the network on the basis of risk.

4.5. Funding and Service Levels

4.5.1. Capital Funding

The Department for Transport (DfT) provides the main source of capital funding to local highway authorities to fund their highway maintenance operations. This is done through the formula-based Highway Maintenance Block which considers the length of roads and the numbers of bridges and lighting columns in the authority. In 2025/26, the baseline funding allocation to Cumberland was **£19.3m**.

In addition, a further **£7.1m** of funding for Cumberland was announced for 2025/26. This included an incentive funding element whereby 25% of this additional funding is held back until authorities can provide evidence that they are complying with the DfT's criteria for best practice in asset management.

Assuming that these criteria have been met, the 2025/26 Highways Capital Maintenance funding from DfT will be **£26.5m**.

This is separate from the Integrated Transport Block funding which is used to fund local transport improvement schemes.

Capital funding is allocated to individual asset types primarily based on need. In addition to capital allocations for carriageways, structures, lighting, and signals new capital allocations have been introduced for maintenance of signs, road markings, trees, and Road Restraint Systems (RRS), that were previously funded from revenue.

Funding allocations, and annual programmes (discussed below) are developed on a risk-based whole lifecycle asset management approach, this considers:

- Carriageway survey data (i.e. SCANNER and SCRIM)
- Bridge Condition Indices
- Expected asset life and condition ratings
- NHT surveys and public feedback

Application of these filters and criteria ensures that investments are identified and prioritised with Cumberland's stated asset management objectives, as defined in the HAMS.

The Council's Highways & Transport Board approves the allocations and programmes, and these are reviewed every year, with proportions adjusted according to need and condition.

Programme Manager and Asset Manager approval is required to move funds between schemes and portfolios.

4.5.2. Revenue Funding

The main sources of highway revenue funding are from Council Tax and business rates but also include an element of income generated by the County Council. Revenue funding is used for staff salaries, as well as for most reactive and operational maintenance carried out on highways, such as pothole repairs, street cleansing and grass cutting.

For 2025 to 2026 the value of highways revenue funding was £42m; £18m of this is allocated to servicing payments for the Carlisle Norther Development Route (CNDR) PFI project, which has 14 years left to run. This leaves approximately £24m available for staffing and the delivery or revenue funded services. In addition, the service is expected to meet annual saving targets (e.g. £1m in 2025) which are currently achieved through operating at a significant vacancy rate which, in turn, presents significant challenges for the delivery of the service.

For highway maintenance specifically, revenue spend in 2025/26 was approximately **£11.3 million**.

Cumberland is moving from historic budget allocations to a zero-based budgeting approach, evidencing need with asset data and defect history. Where it is possible to define a maintenance activity as suitable for capital funding this is the preferred funding mechanism.

4.6. Carbon Management and Reduction

The council's **Carbon and Energy Management Plan** targets reductions in greenhouse gas emissions from council-owned buildings, fleet operations, and the wider supply chain — which includes highway construction and maintenance contracts. The plan sets targets for an 18% reduction in Scope 1 and 2 emissions by 2027, alongside a 2% reduction across all scopes. For highway asset management, this means prioritising low-carbon materials, efficient fleet use, and sustainable procurement. It also includes transitioning plant and maintenance vehicles to alternative fuels such as electric, hydrogen, or HVO biofuels, and embedding energy efficiency and carbon accountability into asset lifecycle planning.

Cumberland will adopt, through participation in the ADEPT carbon leadership programme, the Future Highways Research Group's approach to carbon calculation for highways, providing a standard method to measure and evidencing carbon emissions, the development of practical strategies for emissions reduction, improved operational efficiency and supporting progress towards net zero targets. The council is an active participant in ADEPT's Live Labs programme to develop innovative approaches to carbon reduction.

In the identification and prioritisation of schemes of work, whole-life carbon costs will be assessed, and materials, products and treatments for maintenance evaluated for environmental impact.

4.7. Climate Resilience and Adaptation

Cumberland's Highways Asset Management Strategy (HAMS) identifies climate change as a key challenge facing the Council in the management of its highways network, with the attendant risks that require management and particular implications for all highways assets, in particular highway drainage, structures, carriageways and footways and highway trees. The HAMS commits to embed climate resilience into asset management planning and delivery. The approach to highways asset management is having to be modified to reflect the risks and impact of climate change on the expected lives and performance of assets in response to more extreme weather events, and new materials, specifications and techniques will need to be adopted to provide more resilience. Cumberland has identified a resilient network to prioritise intervention and to target resources and responses in the event of weather events towards those parts of the network that are most critical as well as to inform risk management.

The **Climate and Nature Strategy (2024–2027)** outlines Cumberland Council's integrated approach to managing the climate and nature emergency, with several programmes and management plans directly relevant to **highway asset management**. The strategy recognises that infrastructure, housing, and transport investment are critical to both climate mitigation and adaptation. Over the next three years, the Council will focus on embedding sustainability and resilience principles into its **Transport Infrastructure Plan**, aligning highway maintenance, construction, and renewal with low-carbon, climate-resilient practices. This includes designing infrastructure that withstands more frequent extreme weather events, integrating flood resilience into road networks, and supporting the shift to active and low-emission travel modes through improved cycling, walking, and electric vehicle infrastructure.

The **Natural Environment Management Plan** complements this by integrating biodiversity and ecosystem resilience into infrastructure delivery. Highway asset management will align with biodiversity net gain requirements and the Local Nature Recovery Strategy, ensuring verges, embankments, and adjacent land are managed to enhance pollinator habitats,

tree canopy coverage, and soil health. The Council aims to use its road corridors and coastal assets to support natural capital objectives, linking transport resilience with wider environmental recovery.

Resilience planning is central to highway management activities, recognising that Cumberland's transport network faces increased flood and erosion risk. Shoreline Management Plans and local flood strategies will inform investment decisions, ensuring road assets are designed or adapted for long-term sustainability. Community and partnership programmes, including the Cumbria Resilience Forum and Catchment Partnerships, will support coordinated infrastructure resilience across local and regional networks.

Together, these strategic elements position highway asset management as a key delivery mechanism for Cumberland's climate adaptation and decarbonisation goals. By aligning maintenance and investment with the Climate and Nature Strategy, the Council will ensure that its transport and infrastructure assets not only support mobility and economic growth but also contribute actively to a more resilient, low-carbon, and biodiverse Cumberland.

4.8. Maintenance Strategies

The council's approach to highways asset management adopts a number of maintenance strategies, that apply to all assets as well as informing the more detailed asset-specific strategies that are described below under programme development.

Maintenance Strategy	Description
Risk-Based Asset Management	Adoption of the Well-Managed Highway Infrastructure Code of Practice; prioritisation by use and condition; focus on early intervention and prevention; lifecycle planning for all major asset groups.
Lifecycle Planning Approach	Maintenance from creation to disposal guided by data and performance forecasts; medium/long-term programmes sustain asset life cost-effectively.
Planned vs. Reactive Maintenance	Emphasis on planned, cyclic maintenance; use of safety and condition inspections to trigger timely interventions.
Data-Driven and Digital Asset Management	Centralised databases for all assets; digital inspections, GIS mapping, and integrated asset inventories.
Climate Resilience and Environmental Sustainability	Use of recycled materials; flood and weather resilience; reducing maintenance carbon footprint.
Performance and Best Practice Monitoring	Benchmarking with NHT, LCRIG, ADEPT; regular performance dashboards and customer surveys.

Table 5: Maintenance Strategies

4.9. 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. The HAMS sets out the council's commitment to the adoption of lifecycle planning in the management of its highway assets, through the collection and use of comprehensive asset inventory, condition and performance data, and to develop forward programmes of work.

Lifecycle planning provides the basis for investment planning and prioritisation across all assets considering risk, performance and service lives of those assets. It supports the delivery of the Asset Management Objectives. It enables the evaluation of alternative investment and maintenance strategies, for example cost scenarios for steady state, progression to desired levels of service as set out in the HAMS, as well as constrained budgets. The development of the tools to support cross-asset lifecycle planning is identified as a key improvement action within the timeframe of this HIAMP.

4.10. Programme Development

4.10.1. General

Forward programmes of works are annually approved and reviewed by the Highways and Transport Strategic Board

4.10.2. Carriageways

Carriageway schemes are prioritised through a procedure that ensures consistency of service throughout the authority as well as providing an auditable trail on the use of allocations. This ensures that the highways budget is spent on the right schemes at the right time, and that the schemes are prioritised using optimization methodologies to maximise risk reduction and whole life costs, as described in the **04.012 Prioritisation of Carriageway Surface Treatments and Structural Maintenance Procedure**.

Depending on the road classification, data from condition surveys (SCANNER and SCRIM) and visual condition data (Vaisala RoadAI and manual inspections) is used within Scheme Manager software to identify and rank potential maintenance schemes based on condition, hierarchy, defects, surface age, resilience, network importance (e.g. part of the resilient network or a commercially important location). Socio-economic factors (e.g. whether part of a cycle route, or near a school or bus stop) are also considered in the ranking of schemes. Potential schemes can also be proposed by the delivery teams and councillors, and these are also evaluated against need.

Prospective schemes are then reviewed and validated by local delivery teams, and treatment types and costs are determined before they are added to the forward programme which consists of a confirmed 1-year programme plus an indicative further 5-year programme. The forward programme is updated on an annual basis and forms the basis for more detailed site investigations.

Budget allocations are agreed centrally with input from individual Asset Leads and from the delivery team. However, funding is generally insufficient to meet the expected 10% annual renewal requirement with unclassified and urban roads most affected.

4.10.3. Footways and Cycleways

Footway and cycleway maintenance schemes are funded through the Transport Capital programme budget and are designed to establish, refurbish or renovate the footway and cycleway asset. A risk-based approach is taken, prioritising preventative maintenance informed by condition data.

Due to limitations of Vaisala RoadAI in collecting usable condition information on all footway material types, this is supplemented by a survey by Gaist, primarily on the Urban Footway network. This survey allows schemes to be graded and scored prior to review and feedback by delivery teams.

A lifecycle approach is taken to the assessment and prioritisation of footway and cycleway schemes as set out in the **13.006 Footways and Cycleways Scheme Assessment and Prioritisation Methodology Procedure**. This procedure is used when the Gaist scheme identification approach does not provide a required scheme.

Regular safety inspections identify potholes and other potential safety issues on the footway or cycleway, this information is used alongside engineering judgement and consideration of other factors such as hierarchy, level of use, history of claims and history of reactive maintenance, to identify potential maintenance schemes.

Potential schemes are prioritised on a risk basis that considers the probability and impact the scheme will have in terms of:

- Finance (whole life cost implications, impact on claims)
- Programme Delivery (disruption to the network, increase in reactive work)
- Asset integrity
- Safety of users
- Environment
- Reputation and legal liability

4.10.4. Bridges and Structures

The council has responsibility for maintaining a range of structural assets, principally bridges, but also including subways, culverts, retaining walls, cattle grids and sea wall coastal defences.

Structures maintenance is based on regular cyclic and reactive inspections, to maintain safety and address flood risks and build resilience through targeted investment.

There are significant challenges that face the council in managing its stock of structures to ensure that they are safe, fit for purpose and able to meet the demands of users:

- Nearly 50% of bridges rated poor/very poor under Bridge Condition Index.
- Whilst capital budgets have increased recently which has improved capacity to deliver major maintenance and renewal works, revenue budgets remain low limiting the delivery of smaller scale reactive and cyclical works.
- There is a general lack of skilled bridge engineers, which makes it difficult to maintain sufficient staff to deliver bridge maintenance activities.

Strengthening schemes are generally major works on bridges and other structures e.g. complete replacement of a bridge which is beyond repair, replacement of a concrete bridge deck and major structural repairs to increase the strength of a bridge.

Programme Development and Prioritisation

The forward programme of bridge and structures works is derived from an annual process which identifies and prioritises schemes based on inspection outcomes from General Bridge Inspections and Principal Bridge Inspections as well as input from bridge engineers and technicians. See 1**3.009 Maintenance and Strengthening (Bridge and Structures) Scheme Assessment and Prioritisation Methodology**.

There is no detailed risk-scoring framework, and prioritisation is primarily based on professional judgement. The prioritisation process considers the risk associated with each structure, including the risk of more major works being required if defects are not addressed.

The prioritisation process considers that factors include both the assessed condition of the bridge and its importance to the council's network (i.e. the impact a structure's failure/closure), including:

- Structural risk.
- Abnormal loads and diversion routing.
- Whether a structure is on the resilient network.
- Local community needs (schools, hospitals, gritting).

Large projects may require multi-year rolling investment due to the scale of the works.

4.10.5. Drainage

As described in **13.004 Drainage – Scheme Assessment and Prioritisation** procedure, drainage schemes are identified through regular highway inspections, flood risk studies, and reports from the public or the council's Flood Risk teams. Planned maintenance schemes are required where routine maintenance – such as gully emptying - isn't sufficient, for example where surface water on roads cannot be safely managed by annual maintenance, where existing systems have failed or exceeded their design life or where capacity needs to be increased to reduce flood risk.

The strategy for drainage maintenance is to move to risk-based intervention using improved asset data and smart systems, to focus on flood prevention and adaptive gully cleansing. The aim is to integrate drainage data with central asset systems.

Potential schemes are prioritised using a risk-based scoring matrix that weighs cost, safety, asset condition, environment, and reputation/legal risk. High-scoring schemes are included in the Transport Capital Programme, while lower-level needs are managed through routine or reactive maintenance.

The approach to drainage maintenance delivery is set out below:

Reactive repairs	• Address urgent issues found through inspections or public call reports.

Routine & Cyclic Maintenance	• Gullies, drains, culverts, ditches, soakaways etc. inspected/ cleaned based on flood risk.
	• Gullies are graded by risk and cleaned accordingly:
	  • Grade 1 (High risk): Principal Road Network gullies – inspected/cleaned annually.
	  • Grade 2 (Medium risk): Classified roads – every 2 years.
	  • Grade 3 (Low risk): U roads / non-PRN areas – every 3 years.
	  • Grade 4 (Very low risk): Residential/low-traffic areas – every 4 years.
	• Risk grades are reviewed every 3 years.

Planned Schemes	• Larger improvement or replacement projects identified through the scoring process.

Table 6: Drainage Maintenance Delivery

4.10.6. Road Lighting

The Council's lighting assets comprise a diverse range of materials and equipment, including steel, concrete, and fibreglass columns, as well as illuminated signs, bollards, and supply pillars. Each material type presents distinct management challenges — fibreglass columns are susceptible to structural failure, while steel columns can suffer from internal corrosion that is difficult to detect without intrusive testing. These material risks, combined with limited inspection capacity, contribute to uncertainty around the overall condition and performance of the lighting stock. The incomplete inspection programme and lack of baseline data further limit proactive maintenance and strategic asset management.

Street lighting maintenance and renewal activities are funded through both capital and revenue budgets. Capital funding is primarily directed toward lighting column replacements, with a long-term objective to renew approximately 2% of the total asset stock annually. However, this target is seldom achieved due to financial constraints and competing priorities. Available resources are spread across multiple core activities, including asset management, programme delivery, and data management, while annual, historically based budgets offer little flexibility to respond to emerging risks or shifting priorities.

The maintenance strategy for lighting is to shift from reactive maintenance to planned asset management, to focus on energy efficiency and safety and to develop a full column replacement plan.

Lighting schemes encompass a wide range of works, including local lighting improvements, lantern replacement and LED conversion, column renewal, illuminated sign replacement, and de-illumination of obsolete assets. They may also include the illumination of pedestrian crossings, replacement of private cable networks, and the application of protective coatings.

Schemes can be identified through road safety assessments, lighting assessments, asset management planning, testing programmes, or community and councillor requests. As set out in **13.008 Lighting Scheme Assessment and Prioritisation**, each proposed scheme is prioritised using a structured scoring system that balances safety, crime reduction, environmental benefit, community impact, and cost efficiency. This ensures that limited capital investment delivers the greatest value and aligns with strategic objectives for safety, sustainability, and community benefit.

Reactive maintenance continues to be managed through the Road Lighting Maintenance Plan on a risk-based approach, with faults prioritised according to urgency and defined response times. All asset and fault data are recorded in the Lighting Asset Management System, which may in future be enhanced by a Central Management System to improve monitoring and efficiency. Sustainability remains a key consideration, with materials recycled under Waste Electrical and Electronic Equipment (WEEE) regulations — achieving recovery rates of up to 95%. Metal columns are sent for scrap, concrete is crushed and reused, and historic cast iron columns are retained for heritage reuse. Despite these efforts, budgetary limitations and incomplete data continue to constrain the Council's ability to take a fully proactive and lifecycle-based approach to lighting asset management.

4.10.7 Signals and Traffic Management Systems

The strategy for TMS is to upgrade systems to allow the monitoring of signal infrastructure remotely, to improve resilience and modernise outdated systems and to refine lifecycle models and expand remote system coverage.

Prioritisation of signals replacement is based mainly on asset age but also condition assessments as some younger sites deteriorate faster (e.g., due to environment, vandalism), while older ones remain serviceable.

Capital funding is used for refurbishment and larger replacement projects while revenue funding covers smaller repairs such as detector replacements as well as covering maintenance contracts (IMtrac, BT, Yunex, etc.). Historic underfunding led to a maintenance backlog, but recent increases in capital funding are starting to address this.

4.10.8. Signs and Markings

Vaisala is providing Line marking condition data and scheme creation data. Signs are being collected by Vaisala (RoadAI); regulatory and Warning signs, have been manually graded. Output from the RoadAI system is used to supplement works identified from public calls/ demands for service. Prioritisation is based on road hierarchy and whether signs/markings have regulatory power etc.

Road marking defects are recorded by inspectors as part of routine surveys and instructions issued for remarking.

4.10.9. Geotechnical Assets

As described in **13.007 Slope Geotechnics scheme assessment and prioritisation procedure**, the aim of planned maintenance schemes on geotechnical assets (i.e. slopes, cuttings, embankments and rock faces) is to ensure that unstable slopes are identified early, prioritised by risk, and remedial measures are programmed effectively. Inspections are carried out on a five-year cycle with remediation work carried out where required.

Geotechnical schemes are identified through routine inspections and reports, then assessed using a risk-based scoring matrix that weighs safety, financial, environmental, and reputational impacts. Schemes are categorised by complexity (Cat 1–3) and delivered using a structured risk management approach. Remedial works are prioritised by score, designed appropriately for complexity, and monitored continuously, ensuring that slopes remain safe and the highway network resilient.

4.10.10. Highway Trees

As described in **08.038 Tree Managemen**t, tree inspections are carried out on a risk basis using the Quantified Tree Risk Assessment (QTRA). Inspections aim to identify hazardous or high-risk trees and recommend and prioritise remedial works. Due to the known impacts of Ash Dieback (Hymenoscyphus fraxineus), inspections are taking place on all Cumberland adopted roads by highly trained officers. These inspections also identify other tree issues.

There is a flexible working programme underway reflecting risk factors, with all roads inspected at least every 4 years on rolling programme.

Complaints or hazards reported by the public are logged via HIAMs and assessed by trained Highway Officers before referral to Tree Officers. Trees on private land posing risks to highways trigger Section 154 notices under the Highways Act 1980, requiring landowners to act or face council intervention and cost recovery.

Defects are prioritised based on the urgency of response from Emergency, representing immediate danger to the public, through to No Works Required. Works at low level/low risk are carried out by trained council operatives; others require framework contractors. Protected or sensitive trees require liaison with Planning (for TPOs or Conservation Areas) and compliance with the Wildlife & Countryside Act 1981 and Forestry Commission Felling Licence Regulations.

4.10.11. Road Restraint Systems

Cumberland's approach for identifying and prioritising Road Restraint System (RRS) maintenance and improvement schemes is set out in **13.011 Road Restraint Systems – Scheme Assessment and Prioritisation procedure**.

Road Restraint System (RRS) maintenance schemes are identified through condition inspections, asset data, and local safety reviews where existing barriers are life-expired, damaged, or no longer appropriate for the roadside environment. A comprehensive survey of RRS infrastructure in Cumbria was undertaken by Atkins in 2013. Based on the results of this survey Cumbria Council implemented an extensive programme of work to address the recommended actions. In 2025 a review of the Atkins report uncovered a number of sites were not included. With input from Delivery Team Network Engineers Cumberland Council have implemented a new survey carried out by Aecom. The findings are currently being addressed through a new rolling programme of work.

Before any replacement is programmed, the continued need for the RRS is re-evaluated to ensure it remains justified. Identification focuses on sites where the safety performance of existing systems has deteriorated or surrounding conditions have changed, such as altered road geometry, speed limits, or the introduction of new roadside hazards.

Prioritisation of maintenance schemes is based on a risk-based assessment rather than asset age alone. Sites are classified as higher, medium, or lower priority using accident data where available or a structured risk-scoring method that considers location, layout, collision severity,

and potential secondary impacts. Only sites where the level of risk cannot be accepted justify renewal or upgrade; lower-risk sites may instead benefit from non-barrier interventions such as hazard removal, use of passively safe furniture, or local safety improvements. This ensures maintenance investment targets the most safety-critical locations, aligning with asset management principles of proportionality, sustainability, and best value.

4.10.12. Public Rights of Way

Cumberland Council manages its Public Rights of Way (PRoW) network through a structured, risk-based inspection and maintenance regime designed to ensure safety, accessibility, and asset integrity. This approach is set out in **08.030 Hierarchy Maintenance of Public Rights of Way**. The network is classified by use type—footpaths, bridleways, byways, and restricted byways—with urban and rural routes inspected on a six-year parish-based cycle.

Rural PRoWs and unsurfaced urban routes are maintained by the Countryside Access Team, while surfaced urban paths are managed jointly by the Highway Condition Safety Inspection and Highway Delivery teams. Inspections identify asset condition, ownership, and maintenance responsibilities, forming the foundation for prioritising essential works within available budgets.

Maintenance and improvement priorities are determined through a combination of inspection findings, public and stakeholder reports, and a formal risk assessment process. Urgent health and safety issues receive immediate attention, while annual programmes address routine works such as vegetation clearance and signposting. Improvement schemes are developed collaboratively with parishes, councillors, and user groups, often supported by match funding.

This asset-based and risk-informed approach enables Cumberland Council to allocate resources effectively, maintain network integrity, and support safe, sustainable access across the PRoW network.

4.11. Delivery

Cumberland is in the process of moving towards integrated in-house teams as the preferred delivery model, with the aims of cost reduction, providing greater flexibility and to enable the council to have more control over the delivery of maintenance works. The ambition is for Cumberland to be flexible, innovative, and self-sufficient in delivery of asset maintenance and management.

A new structure has been established with the creation of Cumberland Council, moving from siloed teams to a single functional highways delivery team, combining maintenance, inspections, and technical support, and delivering types of work previously undertaken by external contractors.

Capital Maintenance

Dedicated delivery teams for schemes have been trialled successfully with £14m of levelling-up fund projects and are being rolled out more widely.

There are separate delivery teams covering the North and South of the authority area for reactive, planned, and cyclic works. Supporting this are dedicated programme delivery and depot management teams. Schemes up to £1m are delivered internally; larger ones currently remain externally delivered.

Longer term plans for delivery of maintenance activities are to transition towards a more integrated, in-house, needs-based highways delivery model including:

- Expanding surface dressing beyond A/B roads.
- In-house delivered surfacing works.
- Enhancing localised, preventative maintenance.
- Leveraging technology, but only where useful, practical and where savings can be evidenced.

Long-term, one objective is for Cumberland to be able to deliver some of these services for other neighbouring authorities and thereby generate additional income.

Revenue Maintenance

Funding pressures remain the biggest challenge, particularly revenue shortfalls, but restructuring, better monitoring, and innovation are intended to build resilience visible improvements in service.

Internal operations deliver minor works (scour repairs, masonry, culverts, vegetation clearance).

Asset Group	Activities and Delivery Mechanisms			Notes
	Renewals	Reactive	Cyclical	
Carriageways	Smaller schemes (typically up to £1m) delivered internally; larger schemes currently external	Internal teams split between North and South areas	Internal teams split between North and South areas	Currently based on separate operational and network management teams, but moving towards a single team
Footways				
Cycleways				
Street Lighting	Mix of in-house and contractors	Internal	Internal	
Structures	Larger schemes outsourced via framework contractors	Internal teams deliver minor works (scour repairs, masonry, culverts, vegetation clearance)		Delivery coordinated with area stewards: permits, consents, traffic management, materials
Drainage	Larger schemes external, smaller internal	Internal	Internal	

Asset Group	Activities and Delivery Mechanisms			Notes
	Renewals	Reactive	Cyclical	
Lines and Markings	Mix of in-house and contractors	Internal	Internal	Vaisala is providing Line marking condition data and scheme creation. Data collected during safety inspections
Signs	Mix of in-house and contractors	Internal	Internal	Sign are being collected by Vaisala (AI) Regulatory and Warning signs, have been manually graded. Data collected during safety inspection, video footage.
Trees and Vegetation	Internal	Internal	Internal	
Traffic Signals	External	External	N/A	Emergency, reactive and planned maintenance delivered by Telent under service contract.

Table 7: Activities and delivery mechanisms

4.12. Performance Monitoring and Benchmarking

In order to manage the delivery of the council's asset management objectives, and to support continuous improvement in service delivery standards and value for money, a range KPIs are captured and reported. These include specifically collected data, data recorded as part of service delivery and maintenance operations and measures provided as part of external, primarily through participation in the National Highways and Transportation (NHT) benchmarking and performance management network. Data is provided for DfT single data list reporting, and the council participates in the **Annual Local Authority Road Maintenance (ALARM) survey report (AIA - Asphalt Industry Alliance**.

Annex B details the KPIs relating to highways asset management and maps these onto the asset management objectives that they support and monitor. Performance reporting and monitoring comprises both corporate-level reporting: high-level indicators (e.g., potholes fixed, public transport routes) and highways service KPIs (more detailed asset condition and performance data). Through participation in the NHT network, Cumberland is able to benchmark performance against comparable highway authorities, in order to identify priorities for improvement in its highways asset management practices. The further development of the performance management framework is a key action in the HIAMP improvement plan, and will incorporate regular reviews of progress against targets for service levels and KPIs.

Operational performance is monitored through the use of the HIAMS and LibertyCreate systems which both support the management of defects and enquiries, throughout their full delivery cycle.

5. Challenges and Improvements

In common with other local highway authorities, Cumberland is facing significant challenges and risks that significantly impact upon the management of its highways assets. Annex C sets out these challenges grouped by themes. Cumberland Council highways service has already set-in train a number of significant developments to the way it organises plans and delivers its services; these are described in the improvement plan (below).

5.1. Improvement Plan

The Council is committed to a process of continual improvement in the management of its highway assets. This HIAMP, in addition to describing current practices, also sets out improvement actions for the period of the HIAMP (2026-28).

Improvement Action	Asset Scope	Status
Refine funding allocations as more condition survey data becomes available (e.g., for trees, RRS, signs/lines).	All	Planned
Incorporate carbon reduction and biodiversity criteria into investment decisions, strengthening business cases linking data to cost savings, and assessment of whole life carbon costs as part of scheme evaluation and investment planning decision making processes.	All	Planned
Establish sustainable inspection and testing regimes.	All	Planned
Develop frameworks and capacity for large-scale works.	All	Planned
Development of an approach to cross-asset funding, prioritisation and a better understanding of the trade-offs between planned maintenance and revenue-funded reactive maintenance to ensure best value and carbon reduction over the whole life of the asset. This process would be linked to service levels, asset management objectives and other risk factors.	All	Planned

Improvement Action	Asset Scope	Status
Development of a new KPI and performance management framework including SMART targets linked to and used for investment planning to provide: • Benchmarking against neighbouring authorities, drawing upon comparator reporting from the NHT Performance Management Framework. • A focus on meaningful, outcome-driven measures. • Elimination of unnecessary data collection and a reduction in the reporting burden. • Clearer performance measures (defects, response times, resources). • Alignment with ISO 9001 accreditation within five years . • Improved linkage between delivery and asset teams to ensure proactive management. Improvements will include updated scheme documents, more transparent KPIs and extending the use of NHT survey metrics.	All	In progress
Improve monitoring of capital budgets.	All	In progress
Further development of the "Working Together" project to support communities to undertake additional work on the highway within an agreed protocol.	All	In progress
Allocation of capital budgets to a needs basis, rather than historical precedent, has been implemented, facilitated by improving knowledge of asset inventory and condition. As this knowledge continues to develop, it will enable the rational formulation of overall budget requirement, and consequence of shortfall on the level of service that can be provided. A similar progression of revenue budget allocation and requirement estimation is planned, once Council funding procedures and mechanisms are aligned.	All	In progress
Establishment of a dedicated carbon reduction resource to progress carbon accounting, following ADEPT guidance and tools, and promote adoption of sustainable innovations and solutions in support of the Council's wider objectives for climate change action. Participation in the ADEPT carbon leadership programme.	All	In progress

Improvement Action	Asset Scope	Status
Reorganisation of the structure, particularly for Highways Delivery, to a less-siloed structure. This will pave the way for increasing the scope and scale of works delivered in-house, in line with wider Council ambitions and the possible future expansion to external works delivery as a source of revenue. This may modestly increase staff (new senior technician/engineer roles), but will help relieve technical staff from procurement roles in sourcing external contracts, freeing vital resource to focus on asset monitoring and investment planning. Thus there are potential efficiencies if more work delivered in-house via operations (less reliance on external contracts).	All	In progress
Migrate all existing asset data – some of it currently in the form of paper records – into the central asset register to provide a single source of truth.	All esp. Lighting	In progress
Development of an adverse weather alert system for bridge monitoring during high rainfall periods.	Bridges and Structures	Planned
Pilot project to assess the value of data from vehicles to provide useful data, including on traffic flows and categories and on surface condition.	Carriageway	Planned
Extend the use of new technologies, such as Vaisala RoadAI, including for national performance reporting aligned with the new PAS-2161. Adoption and reporting of condition data to the PAS2160 Standard.	Carriageway	Planned
Increase use of durable surfacing materials.	Carriageways and Footways	In progress

Improvement Action	Asset Scope	Status
Building a comprehensive drainage database. Potential sources of data include: new schemes (with "as built" drawings), Section 278/38 developer contributions, flood risk investigations, CCTV surveys, EA surface water maps, historic flooding records and desktop analysis of culverts, ditches, grips, manholes, and digitisation of old paper records. Each asset carries a confidence rating to reflect data accuracy.	Drainage	
Review of gully cleansing operation model with the aim of realising technology benefits and moving to a risk-based approach.	Drainage	In progress
Expand engagement with Infrastructure Planning & Transport to align on flooding, resilience, and transport grants.	Drainage and resilience	In progress
Introduction of digital inspection methods to speed up walked inspections.	Footways and Cycleways	In progress
Revise policies on attachments to columns (banners, comms, EV charging, CCTV).	Lighting	
Street lighting LED programme.	Lighting	Substantially Complete
Undertake lighting surveys to fill data gaps and to consolidate all assets into a single inventory in the Lighting Management System (LMS).	Lighting	
Recruit and restructure to build in-house expertise in bridges and lighting.	Structures Lighting	Planned
Implementation of remote monitoring.	Traffic Management Systems	In progress
Adopt new technologies for traffic signals (trials have taken place of AI-based detection systems and advanced pedestrian sensors as well as the recent transition to extra-low voltage systems.)	Traffic Management Systems	In progress

Table 8: Improvement Plan

5.2. Continuous Improvement

Cumberland Council have made significant progress towards maturity in highway asset management, despite facing significant challenges, including the need to combine disparate processes, teams, data from the various authorities that the council was combined from, as well as climate change, lack of resources, particularly revenue funding, skill shortages and other factors. The Council have committed to developing its highways asset management in a number of key areas, as set out in it's Highways Asset Management Strategy, including innovation, in-house delivery, carbon reduction, climate change adaption, mitigation and resilience, and the development of the skills required within its teams for asset management excellence.

It is recommended that this commitment, and the progress to date is built upon during the period of this HIAMP and that the following are put in place:

- An asset data and information review take place to identify gaps in data and to identify priorities for data collection and quality improvements on the basis of risk to ensure confidence in and quality of asset data
- Specific targets are developed for KPIs and performance measures and progress monitored and reported against those targets over the whole highways asset, aligned to the asset management objectives
- Assigning clear ownership and governance within the asset management processes
- Undertaking periodic reviews of progress in respect of the asset management objectives and identifying and managing the delivery of corrective actions. Periodic updates of the HIAMP, and in particular the improvement plan.
- The council continues to invest in upskilling and recruiting staff to provide the requisite skills for asset management including the application of new technologies
- Development of a risk-based approach to prioritising investments that is common to all assets linked to the Asset Management Objectives
- Development of an approach to cross-asset funding, prioritisation and a better understanding of the trade-offs between planned maintenance and revenue-funded reactive maintenance to ensure best value and carbon reduction over the whole life of the asset, on lifecycle planning principles. This process would be linked to service levels, asset management objectives and other risk factors.

Annex A – Relevant Legislation, Policies, Standards and Guidance

Legislation

- Highways Act 1980
- Traffic Management Act 2004
- Flood and Water Management Act 2010
- The New Roads and Street Works Act 1991
- The Road Traffic Act 1988
- Noxious Weeds Act 1959
- The Local Authorities (Transport Charges) Regulations 1998
- Wildlife and Countryside Act 1981
- The National Park Act 1947 & the National Park and Access to Countryside Act 1949
- Environmental Protection Act 1990
- Health and Safety Act 1974 and associated regulations
- The Equality Act 2010
- The Transport Act 2000

National Guidance & Good Practice

- Highway Infrastructure Asset Management Guidance document (2013)
- Well-Managed Highway Infrastructure: A Code of Practice (2016
- Whole of Government Accounting and the Transport Infrastructure Assets Code of Practice
- Well Managed Highway Liability Risk

Technical Standards

- Design Manual for Roads and Bridges (DMRB)
- Specification for Highway Works (SHW)

Local Policies and Strategies

- Cumberland Council Plan 2023-2027
- Cumberland Council Highways Asset Management Strategy 2023-2025 (to be reviewed)
- Cumberland Council Highway Skid Policy, May 2024
- Cumberland Council Highways Bridges & Structures Management Strategy. Overview, 2024
- Cumberland Council Winter Service Policy, September 2023 - April 2028

- Cumberland Electric Vehicle Strategy, 2024 -2026
- Cumbria Highways Decluttering Policy
- Highways Delivery Plan, 2020-2025
- Road Lighting Maintenance. Service Management Plan, 2022
- Cumberland Council Highway Skid Policy, 2024
- Cumbria County Council Road Lighting Policy Version 2.1, 2014

Annex B Asset Management Objectives and Supporting KPIs

Asset Management Objective	Theme	KPI
1. Safety	Road Safety Performance	No. collisions per 1,000 km.
		No. of Killed or Seriously Injured (KSIs) and Slightly Injured (SIs) persons recorded (against baseline and future targets)
		% of network below investigatory skid-resistance level (SCRIM)
	Inspections & Compliance	Total safety inspections carried out (km)
		% of safety inspections completed on time.
2. Asset Condition	Carriageway Condition (Red/ Amber)	A roads
		B roads
		C roads
		U roads
		Footways
	Potholes	Number of potholes filled
	Structures	Average Bridge Condition (BSCIav)
		Critical Bridge Condition (BSCIcrit)
		Stock condition: Very good /Good/Fair/Poor/ Very poor
	Street Lighting	% lighting defects repaired on time
		% lights working as planned.
3. Whole Life Value	Procurement & Delivery	Projects monitored for delivery to time and cost.
		Developer contributions secured: data tracked per area.
4. Network Resilience & Reliability	Operational Resilience	Precautionary salting runs completed to policy (winter preparedness).
		% defect response compliance (Defects KPI).
		% of ITS (traffic) sites with faults; No. faults rectified (% on time).
	Drainage	No. inspections (% on time)
		No. gullies cleared (% on time).
	Winter Service	Number and % of precautionary salting runs completed on time.
	Parking Enforcement	% of PCNs enforced; % lost at tribunal.

Asset Management Objective	Theme	KPI
5. Environment & Sustainability	Carbon & Resource Management	Waste recycling rate (%)
		Use of warm-mix asphalt and surface dressing (carbon-friendly materials) (%).
	Energy Efficiency	LED lighting penetration (%)
		Dimming capability: (%)
	EV Infrastructure	Number and % of EV charging assets working without fault.
	Future Developments	Sustainable materials, EV infrastructure, and carbon reduction KPIs under consideration.
6. Customer & Community	Customer Service	% enquiries closed on time
	Community Mobility	No. Active Bus Passes; No. Bus journeys per month.
	Consultation & Engagement	Number of planning and pre-application consultations responded to.
		Developer contributions secured in target areas

Annex C Challenges

Theme	Challenge	Notes and Scope
Climate Change adaptation and resilience	Need for resilient infrastructure following severe flood events (e.g., Storm Desmond, 2015).	Members are supportive of resilience investment, having experienced road and bridge washouts.
Local Factors	The circa 20m annual visitors place demands on the highway service that are far beyond what population-based DfT formulas account for.	
	Winter maintenance is a significant ongoing cost due to the local climate.	
Organisation and Governance	Crossover between Infrastructure Planning & Transport teams (flooding, development, public transport funding), though not yet fully integrated.	
	Cycleways, footpaths, drainage, and rights of way have shared or transitioning responsibilities.	
	New infrastructure (Carlisle Southern Link Road) will add assets and maintenance obligations.	
	Rights of way responsibilities are fragmented across highways, a dedicated team, and external bodies like the Lake District National Park.	
	Merging of functions and data from the former District councils.	
Skills and Capabilities	Wider industry challenge: shortage of bridge engineers, and skilled staff generally and recruitment difficulties.	A particular issue for bridges and structures engineers. Cumberland is seeking to address this through an apprentice programme.
	The reliance on external inspectors for Structures Principal Inspections – due to the DMRB requirement that they are carried out by qualified inspectors – is not economically advantageous and does not always meet the required standards.	There is a desire to move more PIs in-house despite this being a potential departure from DMRB standards.

Theme	Challenge	Notes and Scope
Budgets and Funding	Current financial monitoring is limited and inconsistent, relying on spreadsheets. This reduces the capacity to develop programmes of work.	
	Data, maintenance, and capital planning are competing for limited resources.	
	There is a significant need to address the lack of historic investment for some assets, e.g. the target of replacing 2% of lighting columns each year is rarely achieved and approximately 50% of signals are life expired.	
	Current resources levels, and annual saving targets, are insufficient to provide the desired level of service.	
	The substantial funding committed to the CNDR PFI accounts for significant proportion of the annual revenue budget.	
Asset Data and Systems	Lack of baseline data.	Lighting
	Lack of accurate data, limiting scope for proactive maintenance and innovation.	Lighting
	Despite HIAMS having good coverage of road lighting data, some gaps remain and there is a lack of column age and condition data. Footway lighting data is fragmented and paper-based having been inherited from District Councils.	Lighting
	The Council keeps an inventory of gully locations, but records of carrier drains and outfalls are incomplete, although improvement is ongoing.	Drainage
Performance Reporting	Bridge Condition Index (BCI) is used as key performance indicator, but there is limited capacity to analyse trends in depth.	Bridges and Structures