Leicestershire County Council

Highway Infrastructure Asset Management Plan (HIAMP)

Document Control

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Leicestershire County Council's HIAMP was updated and approved October 2025.

This Plan replaces the previous Highway Infrastructure Asset Management Plan (HIAMP) 2022 document. It applies to all our highway assets.

The Plan is a live document. It will be revised and updated to reflect latest information, changing circumstances, and ongoing developments.

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HIGHWAY INFRASTRUCTURE ASSET MANAGEMENT PLAN (HIAMP)

Foreword

The County Council recognises the important role that the highway network plays in keeping people and places connected, especially in a rural county such as Leicestershire. Our highway network enables people and goods to get around.

Keeping our highway network in good condition is important to support economic growth and a good quality of life for the residents, visitors and businesses of the county.

We are committed to developing a consistent and proactive approach to maintaining our highway network and the wider asset management service that we deliver, one that continues to demonstrate best practice.

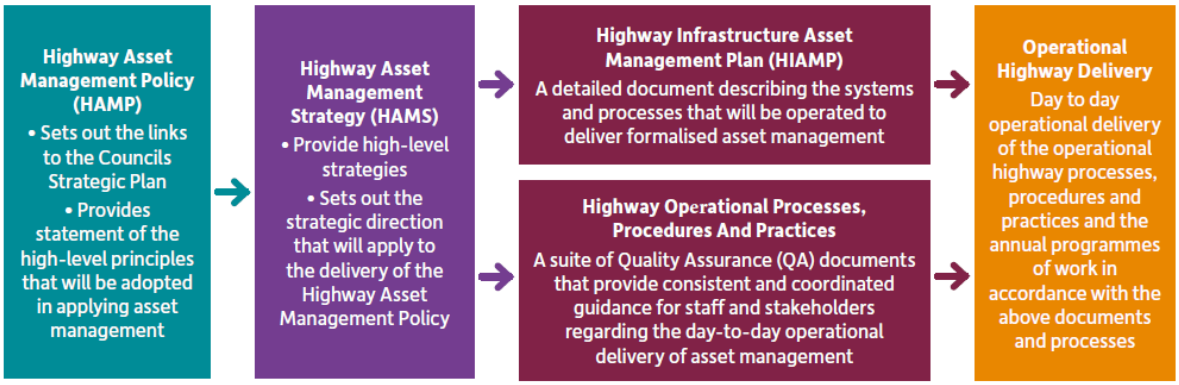
The County Council has been applying the principles of highway asset management for many years. We have brought together the core elements of asset management in our Highway Asset Management Framework.

This framework includes a Highway Asset Management Policy (HAMP), which includes high-level policy and supporting principles, and a Highways Asset Management Strategy (HAMS), which sets out broad objectives and strategic direction.

The framework also contains a Highway Infrastructure Asset Management Plan (HIAMP), which describes the systems and procedures that will be used to deliver asset management in Leicestershire.

We also maintain detailed operating processes and procedures, for Council use, regarding the day-to-day operational delivery of asset management.

Figure 1 – Highway Asset Management document framework



This Plan also provides further detail about how we will help to deliver the 9 core elements of our Highway Asset Management Strategy. Each chapter of this Plan focuses on one of the core elements.

Figure 2 – 9 core elements.

These core elements help to ensure that we make the best possible treatment decisions and deliver the best possible outcomes for our residents, communities, stakeholders and partners, consistent with the County Council's statutory duties as the Highway Authority.

This Plan reflects the approach outlined in the Code of Practice 'Well-Managed Highway Infrastructure', which serves as a guide to local authorities. It demonstrates our continued commitment to a risk-based approach, whilst considering the specific local factors that define our county.

Councillor Andrew Hamilton-Gray

Lead Member for Highways and Transport

1 Context

1.1 Overview

What are highway assets ?

The term 'highway' refers to the highway maintainable at public expense by Leicestershire County Council and to all assets (physical components) in Leicestershire.

The types of assets covered in this Plan include carriageways, footways, highway structures such as bridges, street lighting, traffic signals, drainage, and other assets, such as traffic management, street furniture and the green/'soft' estate such as trees and planted and grassed areas.

What is highway asset management ?

Highway asset management describes a systematic approach to managing, designing, constructing, maintaining, modifying, and replacing assets in the most cost-effective manner possible, whilst also taking into consideration the performance of the asset and the risks involved in managing it.

Highway maintenance is a key part of our highway asset management service, but it is also about how we use our assets, our approach to managing and maintaining assets, how we use data and technology, and our staff skills and capabilities, and those of our suppliers, to deliver a service to our residents, communities, stakeholders and partners.

Highway asset management provides a connection between the high-level strategic context and the day-to-day decisions made to maintain the highway network.

The International Standard for asset management (ISO 55001) defines asset management as the 'coordinated activity of an organization to realise value from assets. Assets are defined as items, things or entities that have potential or actual value to an organisation. Highway asset management is the term that is used to explain the systems and processes that affect the highway to deliver value.

An asset management plan provides answers to the following key questions:

- What assets do we have?
- What condition are they in?
- What do we need the assets to provide?
- How will we ensure that the assets provide what we need and what will it cost to achieve this?

What are the benefits of using an asset management approach?

There are a wide range of benefits to asset management, including Government stressing its importance in helping to deliver public-sector efficiencies. The County Council sees the main benefits as:

- **Delivering national and local priorities** - Aligning the highway maintenance service provision to the Governments and County Council's wider objectives.
- **Funding and investment** - Understanding the consequences of changes to investment levels, supporting the case for funding and making informed decisions about investments. Decisions are made using a long-term 'whole-life' approach, optimising value for money and outcomes.
- **Efficient and effective planned approach** - moving away from a less effective unplanned approach, where asset maintenance needs to be done urgently, to a more efficient and cost-effective planned approach that delivers the greatest value. Appropriate maintenance treatments can be planned within a wider whole-life approach – the right treatment at the right time.
- **Risk management** – Utilising a risk-based approach means that a wide range of risks are taken into account when managing highway assets, including health and safety, financial, environmental and hazards.
- **Supporting the economy and local communities** - facilitates a greater understanding of the contribution highway assets make to economic growth and social well-being of local communities.
- **Managing expectations** - Transparency around challenges, levels of service, the performance of the asset, how we meet our statutory duties and customer expectations etc, leading to improved customer satisfaction, stakeholder awareness and confidence.
- **Communication** – Supports better and more transparent communication with residents, communities and stakeholders

What influences how assets are managed?

Highway Authorities have a duty of care to maintain the highway in a condition fit for its purpose. A range of factors influence the way that we manage our assets, including:

- Legislation - Complying with legal duties, including the Highways Act 1980 and Traffic Management Act 2004.
- Policy, guidance and codes of practice - Meeting national policy, guidance, and codes of practice.
- Local policies and plans - Delivering and supporting the County Council's vision, goals and objectives, such as those set out in the Strategic Plan and Local Transport Plan.
- Funding and investment - Funding restrictions have led to a backlog of maintenance works, which is now impacting our ability to deliver a reliable and resilient transport network for our communities and users. Making the best use of financially constrained budgets and identifying opportunities to secure additional finances is therefore vital.

- Affordability – Maximise the opportunity to deliver a whole-life cost approach that includes preventative treatments within our funding constraints that will improve our long-term affordability.
- Data and Evidence - Understanding the current condition and future demands of the highway infrastructure assets.
- Customer expectations – Increasing demand for the network to provide a service to customers, whilst managing disruption.
- Current and future challenges – including ageing assets (maintain performance whilst ensuring safety of an ageing asset base), extreme weather events, resilience, larger heavier vehicles, and dealing with biodiversity and air quality in a sustainable way.
- Digital technology – Maximising the opportunities provided by digital technology to manage information and data, improving our capability to predict and manage the performance of our assets.
- Capability – Attracting and retaining a skilled workforce to build our capability within the growing infrastructure sector.
- Risk Management – using our Risk Based Approach to prioritise our maintenance programmes

The asset management system in Figure 3 illustrates the factors that are considered, including the use of data and information, which develops into greater understanding throughout the cycle. The items in this system are covered in the relevant sections throughout this document.

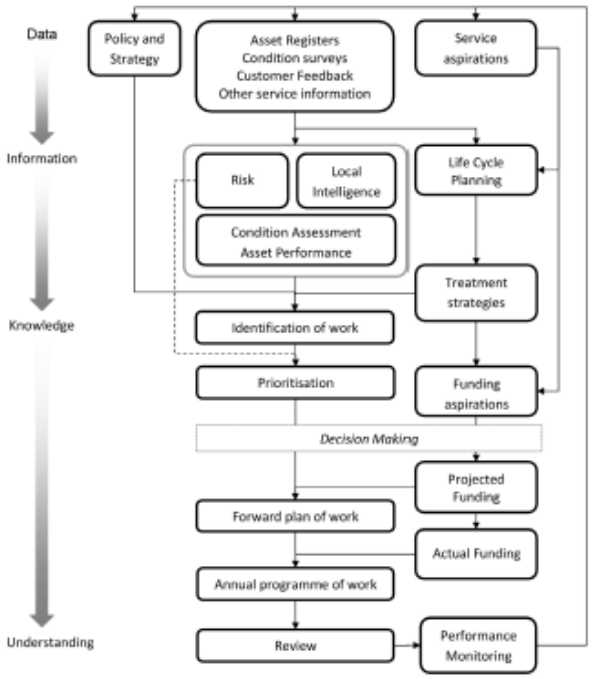


Figure 3. Asset Management System

1.2 The Highway Infrastructure Asset Management Plan (HIAMP)

What is the purpose the HIAMP?

Leicestershire's highway network serves many functions. Whether it's helping communities to access jobs, health care, education, social interaction, etc. or enabling businesses to move goods, it is the lifeblood of our daily lives.

To support peoples' quality of life and the efficiency of business, this HIAMP explains our approach towards managing the highway assets in Leicestershire that are our responsibility as the County Council. It is an approach that we have evolved over time, responding to changing legislation, statutory powers and duties, as well as guidance and best practice.

To enable communities and businesses, and others such as funding bodies (like the Government), to understand the work that we do and how well we are doing it, through this HIAMP we want:

- To be transparent in setting out clear goals, priorities and processes to showing how decisions about highway maintenance and investment are made, helping residents, stakeholders and funding bodies to understand priorities and trade-offs.
- To be held accountable, by providing a formal record of objectives, strategies and actions, allowing performance to be measured and reviewed over time.
- To show how we are consistent in ensuring that asset management decisions follow a coherent framework, reducing reactive or ad-hoc approaches.
- To explain complex technical and strategic issues in a way that is accessible to a wide audience.

This HIAMP not only needs to take account of local needs and priorities, we also need it to show how our approach to asset management and maintenance complies with national guidance and standards, in particular:

- 'Well Managed Highway Infrastructure: A Code of Practice (UK Roads Liaison Group - October 2016)
- Highway Infrastructure Asset Management Guidance Document (UK Roads Liaison Group. Highway Maintenance Efficiency Programme (HMEP) May 2013).

What areas of asset management does it cover?

Asset management covers every stage of an asset's lifecycle, from acquisition to disposal. However, this HIAMP focuses on the management and maintenance of highway assets, as this is where we focus most of our highway related activities and funding in pursuit of supporting peoples' quality of life business' efficiency.

1.3 Overarching Objectives

In delivering this HIAMP, and reflecting the Supporting Principles of our Highways Asset Management Policy, our overarching objectives are:

a) To focus on providing a cost effective and efficient service to support the daily lives of our communities and businesses:

- **i)** Ensure that roads, footways, bridges, lighting and other highway assets are safe, reliable and meet legal standards, helping to enable travel by all means (modes).
- **ii)** Make best use of funding available by prioritising maintenance and improvements that deliver the greatest benefit for our communities and businesses.
- **iii)** Base decisions on accurate data and explore new technologies to improve our decision making, efficiency and service delivery.
- **iv)** Work with partners, communities, businesses and national organisations to share knowledge and deliver better outcomes.
- **v)** Review and challenge our approach and performance, learning from feedback, and adapting our approach to meet changing needs and challenges.
- **vi)** Rationalise our assets by removing redundant and low value items.

b) To align the management and maintenance of highway assets to support the delivery of our Local Transport Plan Core Themes and Policies:

- **i)** Consider the views of residents, businesses and stakeholders when making decisions.
- **ii)** Help people get to work, access services and support local businesses to move goods and materials.
- **iii)** Focus on critical routes and infrastructure to keep the network running during extreme weather or other disruptions.
- **iv)** Support the delivery of new homes, jobs services and facilities necessary to meeting the needs of Leicestershire's growing and aging population.
- **v)** Reduce carbon emissions, adapt to climate change, and support biodiversity through sustainable maintenance practices.

c) To manage our asset risks effectively:

- **i)** Focus on managing and maintaining assets where their condition or a deterioration in their condition poses the greatest risks to the safety of those travelling on our highway network.

d) To make sure that we consider the whole life of our highway assets:

- **i)** Manage assets over their full lifecycle - from construction to renewal -to reduce costs and improve performance.
- **ii)** Make informed decisions supported by lifecycle analysis.

1.4 Goals

To deliver on our Overarching Objectives, we have identified a series of goals.

Environment	• Introduce strategies and activities that protect the environment. • Maximise sustainable active travel modes, such as walking/cycling. • Implement solutions which minimise waste to landfill.
Social	• Support the delivery of services and the local economy. • Ensure ease of movement to people in most need of access to local services. • Facilitate support to vulnerable people within their communities. • Facilitate a high-quality of life. • Meet the needs of the individual. • Remain responsive to the changing needs of businesses and the local economy.
Legislation, Code of Practice, Strategies and Procedures	• Support statutory duties as a highway authority: o Highways Act 1980 o New Roads and Street Works Act 1991 o Flood and Water Management Act 2010 o Transport Act 2000 o The Data (use and access) Act 2025 • Report Whole of Government Accounts (WGA).
Economic	• Recognise the need to drive efficiencies and deliver economic growth. • Utilise lifecycle planning and whole life costing. • Ensure resilience on the road network during civil emergencies and severe weather.
Collaboration	• Reduce road closures and the impact to the transport network. • Provide maximum network availability and reliability. • Engage the public, stakeholders, and supply chain. • Provide value to the authority and the wider community.
Sustainability	• Vision for Council to achieve carbon neutrality by 2030. • Use sustainable and cost-effective maintenance treatments. • Maximise the number of asset repairs through efficiency savings. • Plan for the effects of climate change and changing demands. • Use preventative and restorative treatments in the right place and at the right time (extending the life of assets).
Safety and Serviceability	• Maintain, so far as possible, safe and efficient traffic movement throughout the County by coordinating works in the highway. • Ensure highway assets are accessible and safe for the public. • Continually assess, manage, and control risk to highway users • Endeavour to maintain our winter service networks.

1.5 The HIAMPs support of Strategic Priorities

The HIAMP supports a range of strategic priorities, including the Council's Strategic Plan and Local Transport Plan.

Leicestershire County Council's Strategic Plan (2024-26)

The Strategic Plan sets out the Council's long-term vision and priorities for the county and the organisation. There are five strategic outcomes that describe the Council's vision for Leicestershire:

- **Clean and Green**: The *need to protect and enhance the environment and tackle climate change*.
- **Great Communities**: Leicestershire *to have active and inclusive communities in which people support each other and participate in service design and delivery*.
- **Improved Opportunities**: All *children and young people get the best start for life and have the opportunities they need to fulfil their potential, regardless of their circumstances*.
- **Strong Economy, Transport, and Infrastructure**: Use *local innovation and skills to build a productive, inclusive, and sustainable economy at the forefront of science, technology, and engineering*.
- **Safe and Well**: Ensuring *that people are safe and protected from harm, live in a healthy environment, have the opportunities and support they need to live active, independent, and fulfilling lives*.

The Strategic Plan recognises that in the foreseeable future the Council is facing major challenges. It sets out how the County Council will continue to support the corporate vision, by focusing on the five strategic priority areas. The HIAMP will directly contribute to supporting these strategic priorities by:

Strategic Plan's Strategic Outcomes	HIAMP support
Strong Economy, Transport and Infrastructure	Enabling the efficient movement of people and goods, directly benefiting economic growth. Making better informed strategic decisions to make the best use of reducing resources. Supporting sustainable growth and an attractive place, where businesses are supported to flourish.
Safe and Well	Making roads safer Protecting the environment.
Clean and Green	Supporting measures that focus on improving assets that encourage walking, cycling and the use of passenger transport Maintaining and improving the highway network to reduce traffic congestion Taking account of the environmental impact of our maintenance treatments and services and, where feasible, either reduce or mitigate these impacts.

Great Communities	Working more closely with communities and partners and underpin the principle of working in partnership with communities to sustain the local highway environment. Commissioning and procuring more efficient and appropriately focused highway maintenance services, which take account of the challenging economic pressures faced by the County Council Ensuring that Leicestershire communities are resilient to emergencies.

Local Transport Plan Core Document 2025-2040

The Local Transport Plan (LTP) sets out the strategic vision for transport across Leicestershire. It identifies core themes and policies and how these will be implemented.

It provides an action plan for the development, implementation and review of focused strategies, Multi Modal Area Investment Plans and a County Strategic Transport Investment Plan and provides detail on how the Local Transport Plan will be monitored.

The LTP vision for transport across Leicestershire is:

'Delivering a safe, connected and integrated transport network which is resilient and well managed to support the ambitions and health of our growing communities, safeguards the environment whilst delivering economic prosperity'.

The following LTP core policies are supported by the HIAMP:

LTP Core Policy	HIAMP support
Core Policy 1: **Delivering the Vision**	To provide a safe, connected, efficient, resilient and well-managed transport network we will identify transport solutions which meet the needs of our communities.
Core Policy 2: **Managing Demand**	Delivering a safe, accessible, integrated, and resilient transport network that is well managed and enables communities to access jobs, education and services. The network will also enable efficient movement and delivery of goods to support the local, regional, and international markets.
Core Policy 3: **Enabling Travel Choice**	Providing a resilient transport network to enable travel choice for users of the transport network, which enables them to utilise the most appropriate form of transport for their unique needs and requirements.
Core Policy 4: **Delivering Solutions**	To identify and develop innovative transport related solutions which promote health and wellbeing of our communities, provide betterment to the environment, and provide good value for money while enabling travel choice and improving our transport network users' experiences.

Core Policy 5: **Embracing Innovation**	To embrace innovation and collaboration, which enables us to decarbonise transport and adapt to climate change to ensure a resilient transport network, while benefiting the environment and delivering travel choice to promote health and wellbeing within our communities.
Core Policy 6: **Evaluating Progress**	Utilise data, monitoring and evaluation of our transport solutions to enable evidence-based programmes, provide a flexible approach to policy development, technology, and innovation to address changes and challenges which impact our communities.

1.6 The HIAMP and Resilience

Overview

Resilience, as described in the UK Government Resilience Framework, refers to the ability of communities, services, and infrastructure to **prepare for, withstand, respond to, and recover from disruptive challenges**. It involves strengthening systems and capabilities across society to manage risks and maintain essential functions during emergencies.

Resilience in the context of highway infrastructure is the ability of a highway network to withstand not only the impacts of extreme weather (for example snow, ice or flooding), but also the impact of things like industrial action, major incidents and other local risks.

The level of resilience for any highway needs to be appropriate, for example its intensity of use, economic or social importance and the availability of alternatives. The more intensively used and economically or socially important a route is, the shorter the disruption that is acceptable.

In addition to the physical resilience of highway infrastructure, the management of disruption and speed of recovery are also key. There are several potential situations which could have a significant effect on the highway including inclement weather, subsidence, landslip or collapses, oil spills or local events.

Leicestershire's resilience

We have robust systems in place to respond effectively to severe weather emergencies. We have operational plans and procedures in place with respect to winter service, severe weather events, unforeseen events, and civil emergencies.

These plans have been developed in consultation with partner organisations and include roles, responsibilities and contingency plans and procedures to enable timely and effective response.

Clear communication plans are also in place to ensure that weather and flood forecasts are received by operational teams and disseminated to staff, contractors and our customers.

Responses to severe weather, emergency exercises and actual response are used to identify training opportunities and potential improvements to operational plans and procedures. Where appropriate, reviews are carried out in consultation with multiple parts of the Council and other responding organisations impacted by the event.

We take a hierarchical approach to the management of our highway network. We consider the resilience of the network, by:

- Defining a resilient network, which focuses resources on sustaining a functioning network during extreme weather, major incidents, and other disruptions.
- Taking a risk-based approach to the way the service is delivered which accounts for risk to, and generated by, the environment.
- Recognising the importance of winter service to highway users.

During extreme winter weather we focus our resources on gritting county roads. For all other disruptive events (not just severe winter weather) we have developed the resilient network. This network identifies roads in the county that are considered essential for economic activity and key services. In the event of extreme weather events, major incidents and other disruption. We treat these roads as a priority and focus our resources on keeping them available for use.

In 2024, when consulting on out draft LTP Core Document, respondents were asked about their support for the five LTP core themes, including 'enhancing our transport network's resilience. 53% of respondents stated that enhancing our transport networks resilience was 'very important'.

Critical Infrastructure

'Critical Infrastructure' refers to routes and assets where failure would result in a significant impact to the economy, and affect the ability of public, emergency and health services to carry out their responsibilities.

Critical infrastructure assets form a crucial part of the highway network and can be divided into two types.

- the critical infrastructure that we maintain
- the critical infrastructure that others maintain but that is reliant on highway assets.

There are many potential risks and threats to the function of critical infrastructure, such as environmental change, including impacts from flooding, rising temperature, high winds and drought.

We need to ensure the adequate management of critical assets, including appropriate investment, to ensure that this infrastructure is sufficiently resilient to cope with potential threats.

2 Stakeholders

2.1 Overview

The main purpose of asset management is to ensure that our network meets the needs and expectations of our residents, communities, stakeholders and partners. It is therefore important that we listen to, and communicates with, stakeholders. More information about stakeholders is provided in our Highway Asset Management Strategy (HAMS).

2.2 Key Groups / Stakeholders

A wide range of people and organisations have a stake in our highway network. They include, but are not limited to:

- Residents
- Network users, including pedestrians, cyclists, bus users, motorists, horse riders, wheel chair and scooter users
- Emergency services
- Bus / passenger transport and taxi operators
- Hospitals, health centres, doctors and health visitors
- Universities, colleges and schools
- Businesses
- Representative groups
- Neighbouring authorities and district councils
- Statutory undertakers (water, gas, electricity etc)
- Developers and contractors

2.3 Stakeholder expectations

Engaging and Consulting

We recognise that engagement offers a range of benefits, including promoting transparency about the council's decisions, facilitating trust, showing respect for the people that the council serves, helping the Council to be responsive and to make fair decisions and facilitating how we make informed decisions. The Council's Engagement Standards set out our overall approach.

Our Communications and Digital Service provides specialist advice and skills to highways officers undertaking engagement and consultation, ensuring that appropriate mechanisms are utilised when engaging and consulting.

We use a range of mechanisms to encourage participation in consultations and engagement, including undertaking equality impact assessments, learning from previous engagement, utilising experienced/specialist officers, stakeholder mapping, media releases, web-based surveys, citizens panels, map-based

engagement and the involvement/input of elected members, partners, stakeholders, communities and parish/district councils.

The Council's Have your Say webpage includes information on current engagement. The You said we did webpage provides information on consultations that have closed, including what we asked during the consultation, what was said and what we did/will do after the consultation closed.

As well as undertaking a range of consultations and engagement during the development of policies, strategies, plans, schemes and initiatives, the County Council also monitors stakeholder expectations using the National Highways and Transport (NHT) customer satisfaction survey.

We have participated in the annual National Highways and Transport (NHT) Network customer satisfaction survey since 2008. The outcomes of this survey are used to inform asset management planning. As well as assessing the levels of customer satisfaction, the survey asks customers about how important do people think various assets are, how satisfied they are with them and what levels of service are acceptable to reduce, with responses indicating a priority for our stakeholders.

As an example, the 2024 NHT survey indicated the importance of a range of assets and services to respondents, including:

Importance (% of respondents)	Asset / service
100%	Roads being in good condition
99%	Safe roads
98%	Good pavements and footways
96%	Low levels of traffic and congestion

We will continue to assess the results of surveys and use this information to inform future decisions on highway maintenance.

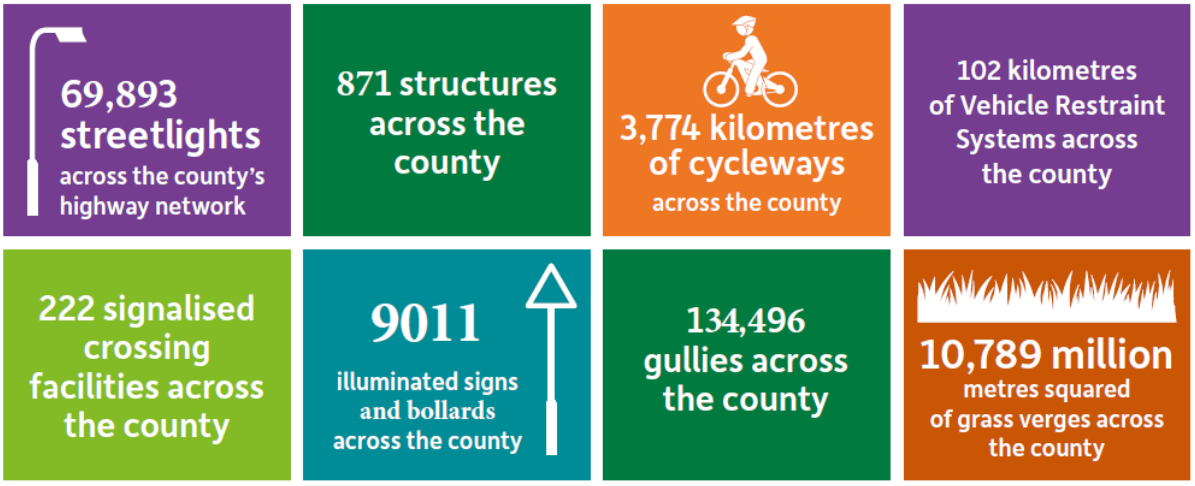
3 The Network

3.1 Overview

Our local roads make up 98 per cent of the total road network. Nearly every journey starts or ends on a local road. To quote the Department for Transport (DfT), local roads 'keep the population connected and the economy flowing', so it's not surprising that people care about how this national asset is looked after.

There are 4,332 km (2,692 miles) of highway network in Leicestershire that are managed by the County Council, as well as pavements, verges, drainage, and large numbers of streetlights, traffic signals and structures, such as bridges.

Figure 4 – Highway network managed by Leicestershire County Council



3.2 Asset groups

The assets covered by this Plan have been divided into asset groups. Summary information about the assets is shown in Table 1.

Asset groups are used in our Asset Registers – further information about these registers are provided in 'Analysis'.

Table1: Leicestershire County Council Highway Assets

Asset Group	Asset Type	Quantity
Carriageway (Including cycle routes as part of the highway)	A Roads	424 km (263 miles)
	B Roads	238 km (148 miles)
	C Roads	1,309 km (813 miles)
	Unclassified Roads	2,361 km (1,467 miles)
	Total	**4,332 km (2,692 miles)**
Footways (Including cycle routes as part of the highway)	Primary Walking Routes	67 km (42 miles)
	Secondary Walking Routes	230 km (143 miles)
	Link Footways	759km (472 miles)
	Local Access Footways and Paths	2,719 km (1,690 miles)
	Total	**2,346 km (2,346 miles)**
Structures	Bridges	586
	Culverts	139
	Subways	15
	Retaining Walls	122
	Gantries	9
Street lighting	Streetlights	69,893
	Illuminated Signs and Bollards	9,011
	Subway Units	276
	LCC owned private electricity cable	400km (249 miles)
	Feeder pillars	582
	Base stations	34
Traffic management	Signalised Junctions	258
	Pegasus Crossings	2
	Pelican Crossings	86
	Puffin Crossings	21
	Toucan Crossings	70
	School Flashing Units	581
	Vehicle Activated Signs	432
Drainage	Gullies	134,496
	Grips	43,973
	Linear drainage channels	2,133
Street furniture	Non-Illuminated Signs	Unknown
	Non-Illuminated Bollards	Unknown
	Grit Bins	824
	Cattle Grids	60
	Vehicle Restraint Systems (VRS)	102km
	Weather Stations	6
Soft estate	Trees, verges, visibility splays and hedgerows	Approx. 4,341 Hectares

In addition to the assets above, we are responsible for road markings, traffic signs, road studs, pedestrian barriers, vehicle restraint systems, cycle stands, bollards, hedges,

embankments, grit bins, catchpits, kerbs, laybys, ditches, grips, weather stations and much more.

The Council's highway infrastructure is continuing to grow in length, size and quantity, which will increase maintenance costs.

Assets Not included in the Plan

Assets on the Public Rights of Way (PROW) network are not included in this Plan but are covered in Leicestershire County Council Rights of Way Improvement Plan.

With a small number of exceptions, the following assets are typically managed by other organisations, although they may be within the highway:

- Park and Ride sites
- Car parks
- Street name plates
- Assets managed by National Highways
- Car parking assets including Pay & Display machines
- Unadopted roads and footways

3.3 The Value of the Asset

The highway infrastructure assets in Leicestershire have been valued in accordance with Whole of Government Accounting (WGA) principles. WGA values the asset based on a replacement with a modern equivalent asset, rather than on an historical cost basis.

The investment that would be required to replace the asset with an 'as new' modern asset is called Gross Replacement Cost (GRC). An assessment of the deterioration in the asset is also used to calculate an amount of depreciation and, by deduction from the GRC, the current value of the asset or Depreciated Replacement Cost (DRC) is obtained.

Acquiring assets and disposing of assets will affect both GRC and DRC, while maintenance activity on existing assets will affect only the DRC.

Table 2 and Table 3 show the asset value (WGA) and percentage split of value across the assets.

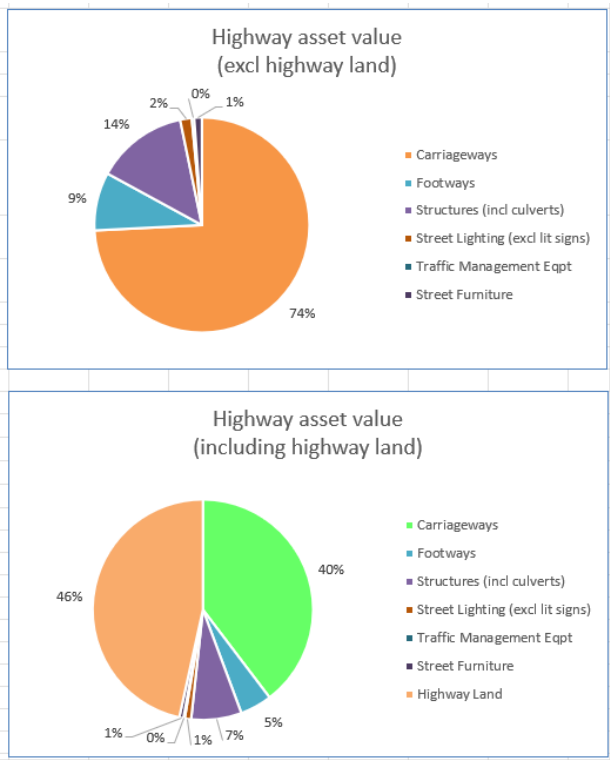
Table 2. Summary of the WGA asset valuation

Our assets were valued at just over £12.2 billion in 2024.

Asset	Gross Replacement Cost (GRC) £,000s
Carriageway	4,841,072
Footways + Cycle Ways	570,314
Structures	900,790
Street Lighting	113,756
Traffic management	23,510
Street furniture	74,888
Highway land (verges etc)	5,682,079
Total	12,206,412

In Leicestershire, the Gross Replacement Cost of highway infrastructure assets (excluding land) is valued at £6.52 billion.

Table 3. Highway asset value - percentage split



3.4 Network Hierarchy

Overview

The network hierarchy reflects the whole highway network, taking account of the character, function and use of each infrastructure asset. Individual asset hierarchies are defined within asset groups. Having a defined network hierarchy is crucial for:

- establishing levels of service
- defining maintenance standards for different parts of the network
- supporting a risk-based maintenance approach
- enabling the County Council to perform its statutory network management duties.

How the hierarchy was developed

When developing the network hierarchy we collaborated with neighbouring authorities, to ensure that users have continuity as they journey across local authority boundaries.

Consideration was also given to factors such as usage, resilience to severe weather, and winter service operations.

The hierarchy applies to most asset groups, although in some cases prioritisation focuses on the needs of the asset group and available funding.

The Leicestershire network hierarchy

A network hierarchy that is based on the assets function is the foundation of our asset management approach for carriageway, footway and cycleway assets. It enables risk-based maintenance strategies to be formed.

Our local network hierarchy is based on guidance in the Code of Practice 'Well-Managed Highway Infrastructure'.

<u>Defining the road network</u>

The road network is defined in different ways, according to different needs, for example:

- **Road classification** is still used for the collection and presentation of carriageway condition data. Although this does not precisely reflect the road network hierarchy, it is produced due to statutory reporting requirements.
- The **Resilient Network** receives priority over other hierarchies to ensure economic activity and access to key services during disruptive events.
- The **Winter Service Network** defines which part of the network receives gritting treatment during the winter.
- The **Traffic Sensitive Network** supports network management activities.

Defining type and use

Our **Network Hierarchy** reflects the type and use of roads across Leicestershire. It is based on the national Code of Practice but includes key local amendments to better suit the county's needs.

Risk based approach - safety and maintenance

The network hierarchy has been defined to optimise both the safety inspection regime and the highway maintenance strategy, using a risk-based approach.

Due to the function of the asset and customer expectation, different maintenance approaches can be taken to optimise resources.

Risk-based Carriageway and footway hierarchies

Our Risk-Based Approach Hierarchy has been developed in accordance with the *Well-Managed Highway Infrastructure: A Code of Practice (2016)*, which sets out the national framework for the effective management of highway assets. Our hierarchy has been developed through detailed consideration of our highway network, including analysis of asset function, condition, and access to key local infrastructure and services.

It provides a structured, evidence led approach to decision making, ensuring that maintenance and investment is informed by an assessment of actual risk across our highway network. Our hierarchy takes into account how different highway assets are used, their function and surrounding environment, and the potential impact of asset deterioration on highway users. By prioritising intervention based on risk and need, it supports the proportionate and transparent allocation of resources, helps maintain network safety, and contributes to the long-term resilience and sustainability of our highway network.

Our **carriageway and footway hierarchies** are summarised in Tables 4 and 5 below.

Table 4. Carriageway hierarchy

Category	Detailed Description
CH1	The highest-risk roads form our 'Resilient Network', which represent the top tier of our carriageway hierarchy. These routes have been designated due to their ability to support economic activity and provide access to critical infrastructure during severe weather events (see Leicestershire Resilient Network).

CH2	This category encompasses the remaining A and B class carriageways that are not part of the designated 'Resilient Network'.
CH3	The third category includes predominantly C class roads that span the county, connecting villages. While they carry less traffic than CH1 and CH2 routes, they play a vital role in linking communities and supporting local accessibility.
CH4	Carriageways that provide access to essential community facilities such as schools, medical practices, and local shops are included in this category. They may also occasionally serve as connecting routes between small hamlets.
CH5	This category includes residential through-routes that may connect to CH4 or higher classifications, as well as bus routes running through residential areas. It also covers business parks and small industrial estates. Additionally, rural roads that do not serve as the main access points into or out of villages are included in this group.
CH6	This category are residential roads with minimal through traffic, typically have a 30mph speed limit and street lighting.
CH7	All remaining publicly maintainable metalled carriageways fall into this category, mainly single-track roads serving few properties.

Table 5: Footway and footpath hierarchy

Category	Detailed Description
FH1	This category covers pedestrian zones, major retail areas, and transport interchanges. They are strategically important locations that serve wider communities, including visitors from outside the local area.
FH2	This category encompasses footways situated within shopping areas of large village centres, as well as routes leading to colleges and secondary schools located in village centres. It may also include footways that connect to FH1 routes.
FH3	This category includes footways that serve bus stops and other local amenities such as shops, as well as routes providing access to schools.
FH4	This category includes footways that provide local access, such as those within residential estates. It also encompasses all other remaining publicly maintainable metalled footways and footpaths.

Condition Assessment

4.1 Overview

Our residents, communities, stakeholders and partners rely on the road system for a range of reasons, including to access jobs, key services, health care, education and social interaction.

The consequence of poorly maintained highway infrastructure impacts all road users. It can affect:

- safety
- congestion, delays and journey reliability
- vehicle operating costs and business investment
- the local economy
- where people live, work and travel
- user's perception of Leicestershire.

Each element of the network can have different condition requirements:

- a minimum requirement, to satisfy the need for road safety
- higher requirements, designed for local serviceability or sustainability.

A good asset management approach will include both reactive and proactive measures, designed to maintain the viability of the network.

Our approach (for example for our reactive service, programming of works and inspections) provides an accurate method for maintaining a record of the condition of the asset. This enables us to accurately plan the most appropriate action.

4.2 How the Condition of Assets is Measured

Leicestershire County Council undertakes a range of surveys and inspections to ensure that the performance and condition of the network is assessed, and appropriate action is taken.

Condition assessment and asset performance

Establishing an effective regime of inspection, survey and recording is the most crucial component of highway infrastructure maintenance.

The performance of our assets is assessed using a range of inspections. Each type of inspection has a particular function or objective that collectively ensures that the County Council understands the performance provided by the asset.

The inspection, survey and recording regime provides the basic information for addressing the core objectives of highway maintenance, namely:

- network safety
- network serviceability

Three types of inspections and/or surveys are undertaken: safety inspections, service inspections and condition surveys. Further information on these is provided below.

Safety inspections

Safety inspections are carried out to identify defects on highway assets which may present a hazard to the highway user, or that will affect the future performance of the asset.

Safety inspections are a visual survey which is carried out by a competent condition technician who identifies the hazard, assesses the risk and the nature and priority of the response. These surveys/inspections can be carried out from a slow-moving vehicle, on foot or on a bike, as appropriate.

Safety inspections are routinely conducted on carriageways, footways, and cycleways; however, the scope of the inspection includes any asset which is presenting a hazard. Where hazards are present on assets managed by third parties, the County Council will follow the relevant procedures to inform the third party and ensure that the defect is resolved.

The County Council undertakes safety inspections of the highway according to a risk-based approach. The frequency of inspection and the response to defects is determined by the risk presented to highway users. The method for undertaking safety inspections and dealing with defects is set out in our safety inspection operating procedure (Highway Inspection Operational Manual).

Service inspections

Service inspections are undertaken to assess whether the asset is providing the appropriate level of service.

The most common inspections of this type are street works inspections, which allow the County Council to take enforcement action under the Traffic Management Act 2004 if works by a third party have not been carried out to the required standard.

Other types of service inspections can include retro-reflectometry surveys to check the night-time performance of lining and signs.

Condition surveys

Condition surveys are undertaken to understand the current performance of the asset, to identify future asset management risks and to develop future renewal programmes.

The approach taken will depend on the type of asset and its function. The current approach to condition surveys is shown in Table 6.

Table 6. Summary of asset condition surveys

Asset type	Survey Type	Scope	Performance assessed
Carriageways*	SCANNER (Surface Condition Assessment for the National Network of Roads)	A, B and C class roads	Surface condition
	CVI (Coarse Visual Inspection)	All road classes	Surface condition
	SCRIM (Sideways-force Coefficient Routine Investigation Machine)	Matches the Resilient Network	Network Surface friction
	Grip Tester	Accident Investigation Sites only	Localised Surface friction
Footways*	FNS (Footway Network Survey) Note: FNS surveys have not been used since 2019	All footways	Surface condition
Structures	BCI (Bridge Condition Index)	All bridge spans >= 1.5m	Structural and functional condition
Lighting	Well-managed Highway Infrastructure: A Code of Practice / Static Load testing / Electrical testing	All columns beyond action age	Risk of structural failure

* The structural condition of carriageways and footways is derived from an assessment of the surface condition.

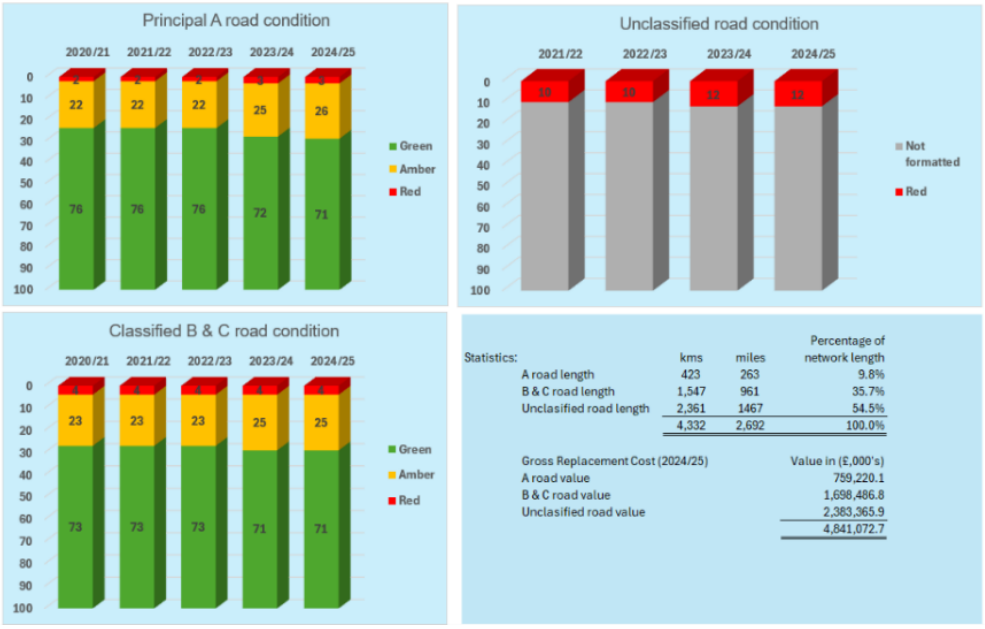
Further information about the different types of surveys and data standards is provided in **Appendix C.**

4.3 The Condition of Leicestershire's Assets

Reduction in funding has had an impact on how we have been able to carry out planned maintenance and has resulted in more urgent repairs being needed to keep the asset in a serviceable condition (keeping the assets safe for users, rather than improving their overall condition and restoring the structural integrity of the asset). This reactive approach is unsustainable.

As a result, the condition of the County's highway network has been deteriorating at an increasingly rapid rate. This is evidenced through the increase in the percentage of network requiring planned maintenance to prevent the need for future structural intervention – see Figure 5 below. This situation is reflective of a continuing national decline in the public satisfaction with highway maintenance services and network condition.

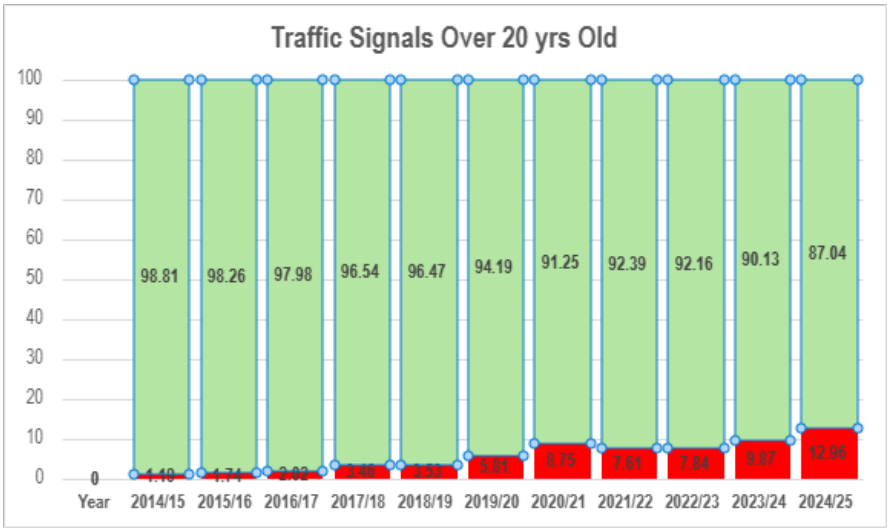
Roads – Figure 5 : Condition - A Class, B&C Class and Unclassified roads



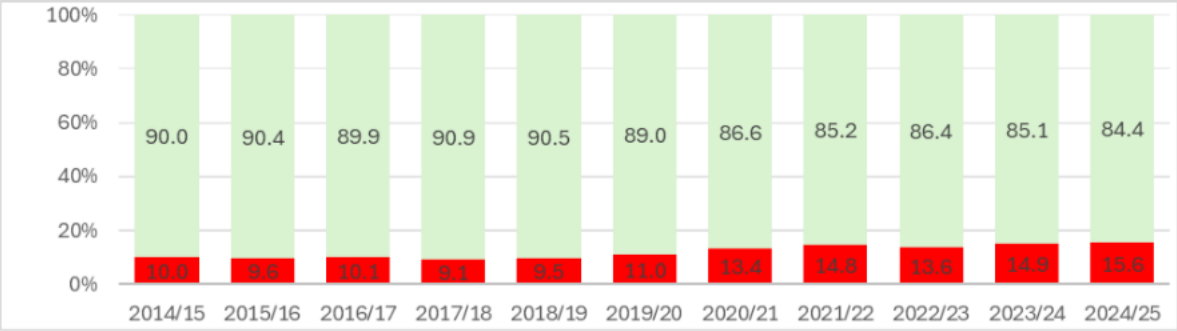
Proactive, planned, consistent, and sustained investment in the Council's transport services, and infrastructure condition and capacity, is necessary to mitigate the implications of network deterioration, population growth and extreme weather. The Council had, until recent multi-year financial settlements were announced, operated in the context of one-year financial settlements from the Government (an approach that makes it difficult to plan spending effectively), uncertainty in national spending promises and relied on one-off allocations by the Council for in-year challenges.

Continuing to focus on reactive and short-term less expensive treatments, aligned with the Government's focus on providing funding for potholes rather than wider asset renewal programmes, will perpetuate a spiral of decline, with the potential for assets to fail completely and become unusable and/or unsafe. The deterioration of our highway assets is further demonstrated by the Traffic Signal and Bridge condition data shown in Figure 6 and Figure 7 below.

Traffic Signals – Figure 6: Age – percentage over 20 years



Bridges – Figure 7: BCI_{CRIT} score – percentage below 75



The chart above indicates the overall condition of the structures stock, where red indicates the percentage of assets in the 'at risk' category of a BCICRIT score below 75. The current KPI is worsening, which indicates that more structures are falling into the 'at risk' category. 'At risk' structures are a potential safety hazard for highway users.

The condition of the key asset groups is summarised in the lifecycle plans in **Appendix B**.

5 Analysis

5.1 Overview

The analysis of data and evidence ensures that we make better-informed, consistent and effective decisions when managing our assets.

Understanding our assets and the effect that they have on each other is central to effective asset management and informed decision making. We therefore do not consider the asset groups in isolation but instead consider them as an integrated whole.

5.2 Asset Information

The information that we need to be able to analyse of assets can be broken down into three broad categories:

Inventory and Condition Information

This data describes the full extent of an asset and can include location, age, size, construction, and details of previous maintenance.

Examples of how we collect this data include digitalisation of historic records and data collection exercises included as part of routine maintenance works.

Inventory and condition information helps us to plan maintenance activities and communicate with the public. It also helps us to understand the cost of replacing our assets with equivalent new assets.

Performance Information

This is the data that we use to determine whether assets are doing what we need them to do to keep the highway safe, reliable, and meeting the needs of our residents, businesses, visitors, and local communities.

Examples of how we collect this data include condition surveys, routine inspections and testing, customer enquiries, third party claims, records of damage to highway assets, and traffic flows.

This data helps us to understand where we need to carry out maintenance activities, where our assets are going to need replacing now or in the future and where we need to think about changing, adding, or removing assets. It also helps us to understand the cost of replacing an asset with its modern equivalent, less deductions for all physical deteriorations.

Financial Information

This is the data that we use to assess cost. For example, how much it will cost to maintain or replace an asset or how much it will cost to deliver a certain level of service.

5.3 Data Management

Legal Duty

We have a legal duty to maintain an up-to-date asset register. This records service requests, complaints, reports or information from users and other third parties, which may require immediate action, special inspection, or influence future inspection or monitoring arrangements.

The nature of response, including where no response is required, is recorded. All inspections record, as a matter of course, date/time of inspection and name of the person conducting the inspection.

Managing the data

Highway asset data is managed primarily by the Network Data and Intelligence team and Support Systems team, with certain datasets being managed by other teams in the Environment and Transport Department of Leicestershire County Council.

The asset registers exist in our Integrated Highway Management System, Pavement Management System and Geographical Information System.

We store all collected asset data (asset inventory, condition and defect), for each asset group, in appropriate asset management systems that use cost effective and appropriate formats to ensure the data is readily available.

All records and information that we maintain is accurately and effectively managed.

5.4 Assessment of Data and Evidence

Overview

The local highway network is not in a healthy state. The general condition of the network has declined and, without substantial Government investment, suggests a move towards ‘managed decline’.

Revenue funding has been falling, claims for injury or damage caused by poor asset condition continue and extreme weather events exacerbate poor road conditions. Visible evidence of ageing and worn-out roads include:

- broken carriageways
- uneven and cracked footways
- bridges with use restrictions imposed

- aged light columns
- blocked gullies that lead to flooding; and
- patchworks of poor reinstatement, undermining the entire structure of some roads.

Data shows that the average proportion of road maintenance budget that is spent on 'reactive' maintenance (work not planned at the beginning of the year) is increasing. Reactive work, such as patching and filling potholes, is twenty times more expensive per square metre than spending on planned preventative maintenance.

There will always be unforeseen circumstances which create a need for reactive maintenance, but the better the condition, the less likely this need will be. Good initial construction and an effective asset management regime can help reduce urgent and more disruptive unplanned repairs and replace them with more efficient planned works.

However, several factors work against this approach:

- Many local highways were not initially built to modern standards, being converted from tracks or cobbled lanes. These were patched and resurfaced over time.
- Over 200 bodies, including numerous uncoordinated utility companies, have rights to dig up roads to access water, power, and telecoms infrastructure. The quality of reinstatement is inconsistent, while even good repairs considerably reduce the lifespan of a surface.
- Lack of funding means delivering the preferred asset management strategy for the highway network has not been possible.

Impact of underfunding on our network

Successive Governments have failed to provide the resources required to properly maintain local roads. Long-term underfunding means that the local road network continues to deteriorate at a faster rate than it can be repaired, while the age of the network and the increased volume and weight of vehicles is accelerating that rate of decline.

The Annual Local Authority Road Maintenance (ALARM) survey is widely respected throughout industry and local Government. It reports the views of those directly involved in repairing and maintaining roads and includes questions relating to funding, maintenance, potholes and emergency repairs. This combination of quantitative and qualitative research, which is independently verified, provides valuable insight into the scale of the problem.
Over the past two decades the message from the ALARM survey has been one of underfunding. This year's survey (2025) again shows that most local authorities don't have enough money to keep pace with essential repairs or the backlog of carriageway maintenance.

Put simply, not enough money is being spent on the network to maintain its condition. Currently, money that is allocated for maintenance is not ring-fenced and can be diverted, for example to pressing social needs.

The challenge ahead for our local roads

Looking to the future, as well as existing issues, a range of new and emerging factors will need to be considered:

- local highway networks may need to find space for the installation of new 4G and 5G internet networks
- electric and other clean-fuel vehicles, that become more autonomous, will need additional infrastructure and change how road space is used
- the local highway network will need to adapt to the increase in walking and cycling that give rise to different safety and condition priorities
- Changes in travel patterns, use of the highway network and an ageing population will require the local highway network to adapt to deliver for all users.

6 Treatment Strategy

6.1 Overview

Despite additional funding delivered in the Budget in 2024, latest estimates from the 2025 ALARM survey found that Councils face a record £14 billion road repair backlog, which will take eleven years to tackle without further funding.

Rising levels of inflation, which has pushed up the cost of materials such as bitumen, as well as more extreme weather, has also made it harder for councils to tackle potholes and maintain local roads.

Despite reducing funding, local authorities are achieving more with less, because of improved efficiencies, better processes and a focused approach through the adoption of highways asset management policies, strategies and plans.

Treatment strategies enable maintenance work to be prioritised on key routes and roads in poor condition, which might otherwise have to be closed.

6.2 Approach

When considering treatment options, a range of factors are considered, including whether to enhance, preserve or reduce, as well as funding:

Approach	Description
Enhance (Asset Performance or Service Standard Enhancement – Aspirational)	An approach that enables the overall condition of the asset group to be enhanced. Interventions such as maintenance, asset renewals and improvements are undertaken on a planned, prioritised basis with a view to increasing the proportion of the asset group in a very good or good condition.
Preserve ('Steady State')	A standard of service or asset performance and investment that fulfils our statutory obligations and preserves the overall condition of the asset in its current state. Interventions such as maintenance and asset renewals are undertaken on a planned, prioritised basis with a view to keeping the same proportions of the asset group in a very good, good, poor and very poor condition. Any investment less than this would mean that a steady state condition or existing service could not be achieved.
Reduce (Asset Performance or Service Standard Reduction)	A standard of service or asset performance that facilitates a more controlled approach. Interventions such as maintenance and asset renewals are undertaken on a planned, optimised basis.
Funding	Our asset management goal is to ensure the optimal use of resources and to deliver the greatest value. Funding is a key enabler of the asset management framework.

(Finances / Investment)	Funding can change, even within the current financial period. This can be disruptive and lead to an inefficient use of resources (for example because of compensation payments, an inability to engage with the supply chain at an early stage or going to the market at the wrong time). In recent years, budget for highways maintenance has been augmented by discretionary additional funding allocated during a financial period. This funding has been essential to enable the authority to sustain the condition of the asset. To achieve the asset management goals, a more stable investment plan should be identified. This will maximise opportunities to deliver the greatest value by applying an asset management approach. Our levels of service are at risk because of future funding levels. We will continue to work to identify additional sources of funding to address any deficiencies and/or to revise our long-term service aspirations.

6.3 Levels of Service

Overview

'Levels of Service' is a term used to describe the quality of services provided by the asset for the benefit of users. They take account of various strategic considerations, including legislation, guidance and best practice.

Levels of Service are broad statements that describe how we inspect, monitor and manage our highway-related assets, with consideration to safety, reliability, quality, serviceability, sustainability, accessibility, financial constraints and consider the environment.

This allows us to determine the value of each asset and the operating, maintenance, and renewal activities that will keep it in good condition. They also highlight how promptly our stakeholders can reasonably expect us to respond to highway defects that have been identified, either by the Authority or the public. One of the hardest challenges of asset management is finding a balance between investing in an asset to safeguard its integrity and value while providing a high-quality service to the public.

The Level of Service relates to our highway infrastructure, the way highway services are delivered and how the services are perceived, these include:

- Condition of the asset.
- Performance of the asset.
- Quality of the services that the asset provides.
- Performance of the management in delivering the services.

When considering the approach that we will adopt for levels of service, it may be appropriate to consider whether the Council needs the asset and whether it can dispose of the asset, sell/transfer ownership/responsibility of the asset to someone else or reduce its maintenance of the asset.

Sell/Transfer ownership – If the land/asset is no longer needed there may be an opportunity to sell the land or transfer ownership (particularly in instances where the Council is responsible for borders/grass verges, which neighbouring landowners may want). This could reduce maintenance and repair costs without the potential of long-term consequences.

Stopping up Orders (public highways) – The Council has the power to stop up areas designated as highway land, by making orders known as a 'stopping up' order. These are usually made to allow development to take place or because the public highway is no longer necessary. Public highway can include roads, streets, footpaths, public car parks, grass verges and footways. Not all roads, streets or footpaths are public highways though. Removing the status of a public highway would decrease the responsibilities of maintenance under the Highways Act 1980. The term 'stopping up' means that once such an order is made, the highway land ceases to be a highway, road or footpath i.e. the highway rights are extinguished in law. However, Occupiers Liability responsibilities would still apply so consideration to ongoing responsibilities would have to be reviewed on a case-by-case basis. If an order is successfully made on the public highway, then the land is free of any Highway Authority control. It is common law presumption that the subsoil of the area stopped up reverts to the landowners. The land can then be enclosed or developed, subject to any necessary planning consent.

6.4 Lifecycle Planning

Overview

Lifecycle planning is a broad method that enables us to assess the viability of asset aspirations and model the future consequences of investments in our assets.

The objectives of lifecycle planning are stated by the UK Roads Liaison Group in the Highway Infrastructure Asset Management Guidance as:

- Identify long term investment for highway infrastructure assets and develop an appropriate maintenance strategy.
- Support decision making, the case for investing in maintenance activities and demonstrate the impact of different funding scenarios.
- Predict future performance of highway infrastructure assets for different levels of investment and different maintenance strategies.

Where possible, the life cycle models used in our lifecycle plans have been adopted from national best practice, such as those provided by the Highway Infrastructure Asset Management Guidance Document (UK Roads Liaison Group. Highway Maintenance Efficiency Programme (HMEP)), or we have created our own bespoke models based on the individual assets within the asset register. In all cases, the models have been

calibrated using Leicestershire asset data.

Process for lifecycle planning

The lifecycle planning process can be used to develop lifecycle plans for asset groups. The process consists of four key stages:

- The **Define Requirements** stage sets out the function and scope of the assets and how this will meet the policy. In effect how the asset will create value.
- The **Measure Performance** stage considers what value the asset is providing. Asset lifecycle modelling can be used to forecast future performance.
- The **Identify Gaps and Risks** stage allows for all key information that is likely to prevent the asset providing the required value to be captured.
- The **Define maintenance strategy and investment strategy** stage describe how the asset will be managed and invested in respectively. Performance gaps and risks can be mitigated using appropriate strategies.

Figure 8. The lifecycle planning process

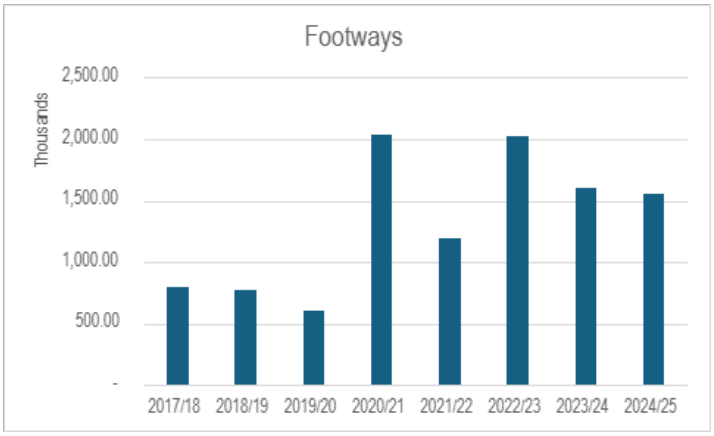
Lifecycle Planning in Leicestershire

Our lifecycle plans provide an outline of the key assets and the long-term plans and funding requirements needed to maintain the required levels of service, at the lowest whole life cost. We have produced lifecycle plans for each of the following asset groups:

1. Carriageways
2. Footways
3. Structures
4. Street lighting
5. Drainage
6. Highway verges
7. Traffic signals
8. Road signs and markings
9. Vehicles restraint systems
10. Trees and hedges.

Our lifecycle plans include information on the asset (asset inventory), current maintenance strategy, investment and condition/performance. An example of the type of information provided in the plans is provided below.

Figure 9 – Footway investment



Further detailed information about each of the key asset groups is provided in the Lifecycle Plans in **Appendix B**.

Forward Plan

Our lifecycle plans also include information on our aspirations for future work that we would like to deliver for each of the asset groups, if resource and funding were to become available.

These forward plan aspirations take account of such things as priorities, goals and objectives, evidence, what it will achieve/deliver, cost/value and risk.

6.5 Developing a Works Programme

Overview

Our objective is to identify a package of works which, within the budget available, will give us the best long-term results for the network. We consider the long-term impact of our decisions, rather than simply prioritising programmes based on what appears to be the most urgent now.

What this means for road maintenance is that we consider all roads in the county (for example their condition, hierarchy, risk, how they interact with each other, and how they will continue to change over time) when working out which ones to maintain or repair first, rather than automatically fixing the roads that look the worst. This enables us to make the best use of the limited resources we have. However, we recognise that this may sometimes cause confusion when people see us working on roads that appear to be in better condition than others.

Programmes of work are essential to deliver this Highway Infrastructure Asset Management Plan. The benefits of a works programme are:

- Reducing risk by planning, hazards which will affect the delivery work can be identified and actions taken to mitigate risk.
- Increasing efficiency by enabling multiple work types to be scheduled in an optimum fashion and enabling the supply chain to provide the ideal solution.
- Increasing transparency by communicating the programme to stakeholders, enabling them to see the process of delivery and improve stakeholder satisfaction.

Developing the Works Programme

There are several stages to developing a works programme, including:

- identifying work
- prioritising the work
- developing the work into a forward plan
- producing the annual works programme

Data, Evidence and Intelligence

Identifying work will involve the consideration of the current condition of the asset against the required performance and consideration of risk. Local intelligence is an important part of this process, not only to inform about constraints, but also to provide engineering solutions which consider locally known risks.

Prioritisation

Prioritisation of the work ensures that for the resources available the County Council generates the maximum value. The precise process will be tailored to the individual asset group in line with the strategies set out in the life cycle plans, but the resources and delivery are considered together as in integrated programme of work. Operating procedures formally set out the methods for identifying and prioritising work.

Forward Programme (Forward Plan of Work)

The County Council aspires to produce a 5 -10 year integrated forward programme of work that:

- is in line with asset maintenance strategies
- uses a risk-based approach
- is based on available condition data and intelligence of reactive work history, local concerns, and engineering experience
- is prioritised to achieve asset outcomes as defined in the levels of service.

The forward programme of work is split into an annual works programme and a forward plan of work.

- **The Annual Works Programme -** This programme covers the forthcoming financial year (Year 1). Schemes will be fully developed and a schedule for delivery can be accurately defined based on the actual funding available.
- **The Forward Plan of Work -** This work is defined for future years (Years 2, 3 and beyond). This programme consists of schemes that are being developed through the design and procurement process. The annual works programme is approved by the Cabinet and published on the County Council's website. This stage of the programme provides the opportunity to consult with stakeholders and the supply chain. Initially the wider programme will be formed of 'candidate schemes', which are the County Council's earliest intelligence or aspiration for work that is required. The programme will be continually revised and refined until such point that it becomes the annual works programme.

Deciding what treatment or intervention to choose

Since our programmes are limited by the available budget, each pound that we spend on a particular asset is a pound that is not available to be spent elsewhere. It is not simply a case of selecting the 'best' treatment for a particular road or asset.

Roads form the largest percentage of our asset and so require the largest proportion of the available funding. It is therefore important that we select the most cost-effective treatment for a particular road rather than the 'best' - they are sometimes the same thing, but not always. If a low-cost option significantly delays the need for more expensive repairs, then it deserves serious consideration even if a more expensive option would deliver a wider range of benefits. As an example:

<u>Approach to Carriageway Maintenance</u>

There are four broad types of maintenance that can be used on our highways:

- Carriageway patching and minor repairs (reactive maintenance works)
- Carriageway surface treatments (preventative maintenance works)
- Resurfacing and overlay (planned works major intervention)
- Reconstruction (structural intervention)

<u>Choosing a treatment</u>

When looking at roads identified as needing treatments, we may find one road in a 'bad' condition and three other roads in a slightly better condition – not yet 'bad' but, perhaps, vulnerable if we should have another period of severe weather.

Within the set budget available to us we have to decide whether to spend all our money on fixing the worst road (and let the other three roads continue to deteriorate into a worse condition) or whether to spend the minimum amount necessary to keep the worst road safe and invest the remaining budget in preventative maintenance works on the three vulnerable roads to protect them and stop them deteriorating into the same poor condition as the first road.

Preventative maintenance is usually cheaper, so we can often maintain three or four roads for the price of fixing one bad road. It is also generally more sustainable and less disruptive than full repair work and so it offers better value all round. However, with competing demands on the programme it means that we need to be prepared and able to take the tough decisions and do the minimum on the bad road to keep it safe while spending most of the money (in this example) on less bad roads in order to maintain and protect them.

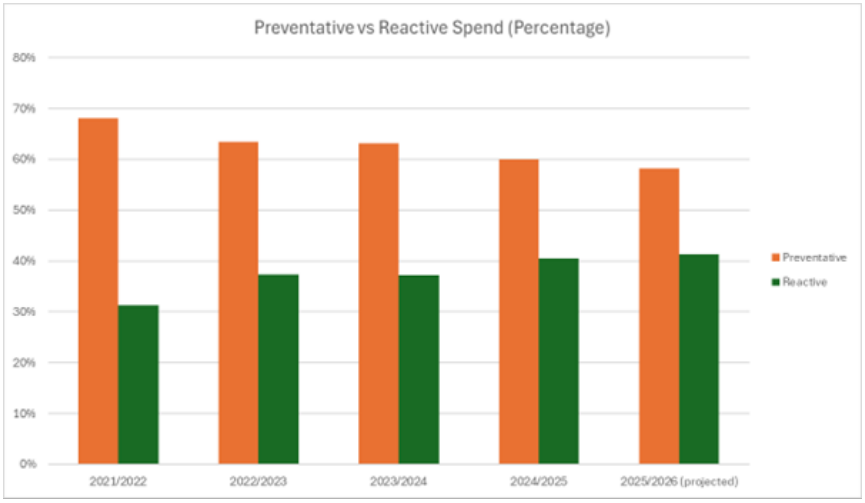
To conclude, if we repaired the worst road first, we could find, in a year's time, that we have one good road (the one we fixed) and three other 'bad' roads (the vulnerable ones that we ignored, which have subsequently deteriorated) all needing a larger amount of money spent on them. However, if we spend the budget on preventative maintenance on the three vulnerable roads, in a year's time we would find that we have three good roads and only one 'bad' road to spend our budget on.

In the long term, it is obvious that this is a good way for us to spend the set amount of money we have for our road network. However, in the short term, it may appear that we are ignoring those roads which appear to be in the greatest need of our attention, but this is not the case. This is just one illustration of how asset management can be applied; there are many others too. For instance, it can help us make decisions about which type of streetlight offers best value for money, and it can help inform our improvement works to make them cheaper to maintain in the future.

Successive Governments have given additional monies for pothole treatment. These additional funds are welcome, but it does nothing to address the cumulative effect of decades of underfunding and perpetuates the downward spiral of the 'patch and mend' approach. Another approach would be to focus additional funding on planned maintenance, which would prevent the potholes forming in the first place.

Figure 10 compares how much of the Council's road maintenance budget is spent on preventative work (like resurfacing to stop problems before they start) and how much is spent on reactive work (like fixing potholes after they appear).

Figure 10 – Preventative / Reactive Spend



The chart clearly shows that the amount of reactive spend is increasing and preventative decreasing reflecting the effect that reduced funding is having on our road network.

Whilst it is most effective to deliver all carriageway works as a programmed renewal, it is also necessary to deliver reactive works to manage the integrity of carriageways. There is an aspiration that all repairs should be 'right first time', unless there is an overwhelming need to deliver a repair that is necessary to ensure the safety or integrity of the network.

Reactive treatments provide an excellent short to mid-life solution, but they cannot be used indefinitely. At some point more robust treatments are required to avoid the repetitive cycle of pothole repairs.

Preventative and Reactive Maintenance Spend

One of the supporting principles of our Highway Asset Management Policy is that we will aim to extend the operational life of highway assets using appropriately timed preventative and restorative treatments. Where possible the County Council will aim to minimise reactive type of repairs, particularly on its unclassified network, as it generally results in lower public satisfaction, the need for more interventions and higher maintenance costs. Our highways maintenance program uses a risk-based asset management approach to maximise value over time, ensure safety, and improve network performance.

Preventative Maintenance

We focus on planned preventative maintenance as it's the most cost effective and efficient approach for maintaining our assets as its generally results in a progressive improvement in overall condition for longer periods of time, less frequent interventions required, improved public satisfaction, more cost-effective long-term treatments, a progressive reduction in revenue costs over time, it is more sustainable and less disruptive.

7 Budget and Resources

7.1 Overview

Leicestershire remains the lowest-funded county council in the country, with greater risks to service delivery as a result.

The Department for Transport (DfT) is responsible for funding local roads renewals and upgrades, providing annual capital funding for highway maintenance and improvements.

On occasion, it will also provide additional maintenance funding, for example for pothole repairs, or will provide the opportunity for local authorities to bid for additional maintenance funding.

The Ministry for Housing, Communities and Local Government (MHCLG) provides revenue support to local highways authorities for routine road maintenance.

Capital funding is specifically for improving the Council's assets. It can include the establishment of new assets, but it also encompasses the refurbishment of existing assets. Capital funds can be sourced from local, regional and national government to deliver improvements in the network. From time-to-time opportunities are made available to bid for funding. These funds are often a one-time investment to target a specific asset or outcome.

Revenue funding is used for day-to-day expenditure, and this often includes routine or reactive maintenance of assets. Revenue funds are generally sourced through council tax, business rate retention and charging for services provided.

7.2 Government Funding

Funding for highway asset maintenance comes from a range of Government blocks and grants, as detailed below. On occasion the County Council may also provide additional investment.

DfT introduced a new incentive element in 2025 to 2026 to ensure that best practice in sustainable highways asset management is followed. 25% of the funding uplift will be held back until local authorities can prove that they are meeting certain criteria.

Highway Maintenance Block (Needs Element) - Capital Funding

The Maintenance Block funding allocated to each local highway authority is based on a formula using road length data and the number of highways assets such as bridges and lighting columns for which each Council is responsible for.
Highway Maintenance Block funding is not ringfenced and local authorities are free to prioritise their spending to meet local needs. However, the DfT do allocate a notional proportion of the total funding to Roads, Bridges, Lighting and Cycleways & Footways.

Additional Funding - Capital

- Highway Maintenance Incentive Fund Element

  In recent years an increasing proportion of DfT funding has been dependent on the authority being able to evidence that it has fully embedded asset management principles into the management of highway business. The Incentive Fund does not provide additional funding but incentivises local authorities to ensure they receive their full share of available funding.

- Local Transport Grant (LTG) - Capital

  The Local Transport Grant (which includes the Integrated Transport Block (ITB)) is a consolidated grant for local transport enhancements and maintenance.

In addition, the County Council may provide additional investment to support highway maintenance activities.

7.3 Leicestershire's historic expenditure on maintaining its assets

Leicestershire County Council has long recognised the strategic importance of its highway network, which supports economic growth, public safety, and community connectivity across a predominantly rural county. The Council's approach to highway maintenance has evolved significantly over the past two decades, transitioning to a more structured, risk-based asset management model.

The Council first formalised its asset management principles in 2007 with the introduction of the **Transport Asset Management Plan (TAMP)**. This was later superseded by the Highway Infrastructure Asset Management Plan (HIAMP), first approved in 2017 and subsequently updated in 2019 and 2023. These plans have been aligned with national best practice, including the "Well Managed Highway Infrastructure" code of practice and ISO 55001 standards.

The Council's strategy has consistently emphasised:

- **Preventative maintenance** to extend asset life and reduce long-term costs.
- **Lifecycle planning** to optimise investment decisions.
- **Stakeholder engagement** to align service levels with public expectations.
- **Data-driven decision-making**, including condition surveys and performance monitoring.

This approach has enabled Leicestershire to maintain one of the best-rated highway networks in the country, as evidenced by its performance in the National Highways & Transport (NHT) satisfaction surveys.

Historic Spending on Highway Maintenance

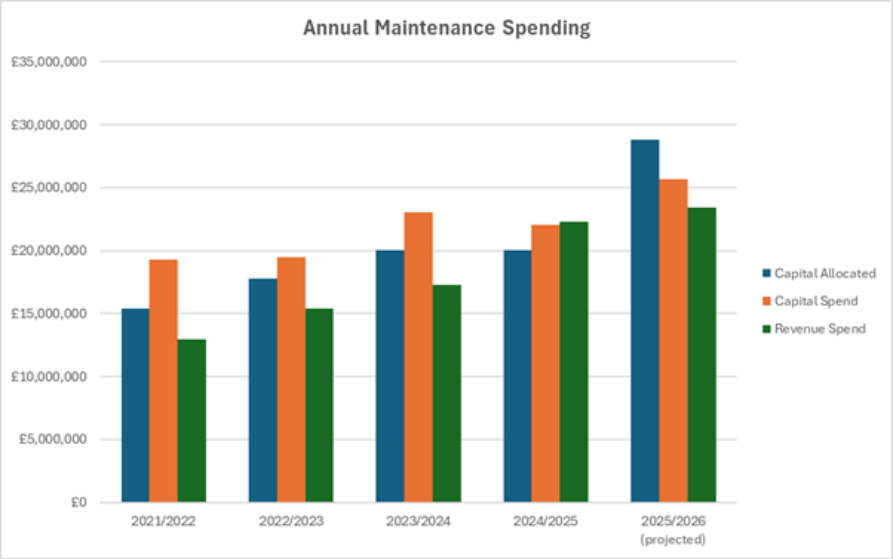
Leicestershire County Council's highway maintenance spending has reflected both strategic priorities and external funding conditions.

Table 7 Summary of Spending (2020/21 to 2025/26)

Financial Year	DfT Capital Allocation (£000s)	Capital Spend (£000s)	Revenue Spend (£000s)	% Preventative	% Reactive
2025/26 (projected)	28,789	25,657	23,414	30.24%	21.50%
2024/25	20,013	22,061	22,307	33.63%	22.65%
2023/24	20,013	23,064	17,306	37.85%	22.34%
2022/23	17,755	19,499	15,392	36.16%	21.31%
2021/22	15,388	19,278	12,975	43.55%	20.03%
2020/21	28,967	21,616	15,732	42.39%	20.53%

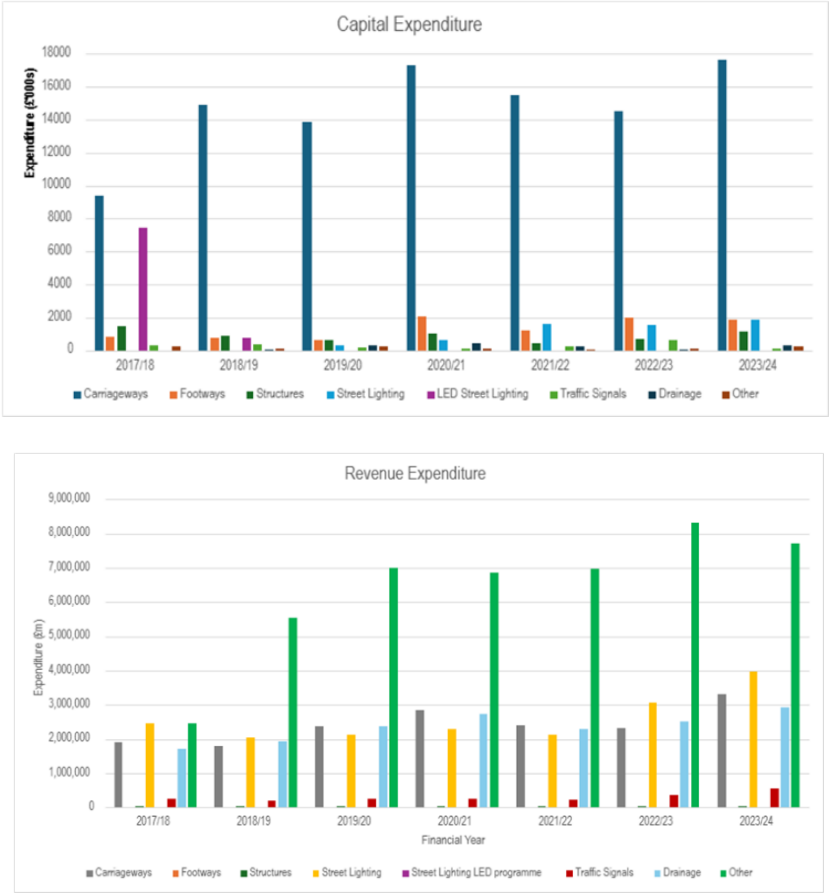
Note: The 2020/21 budget was impacted by the COVID-19 pandemic. Preventative maintenance includes surface dressing, structural repairs, and asset renewal. Reactive maintenance includes pothole repairs and emergency responses. The maintenance budgets include the staff costs, street lighting, structures and other maintenance works which cannot directly be attributed to preventative or reactive under the definitions provided.

Table 8 – Annual maintenance spend



This chart shows how much Leicestershire County Council has invested in maintaining local roads each year.

Figure 11 - Capital and Revenue Expenditure for Highway Infrastructure Assets



7.4 Funding Shortfall

Despite the Government's pledge to commit more money for local roads maintenance, average local authority funding in real terms is down on previous years.

The Annual Local Authority Road Maintenance (ALARM) survey (2025) shows:

- that highway maintenance budgets saw (in real terms) a cut of 4.1% in England and Wales. The situation is compounded by the fact that a smaller proportion of budget is being spent on road maintenance, as funds are directed to other works such as new cycle paths.
- The average percentage of highway maintenance budget spent on the carriageway is up slightly but is still just 53%. This means the average carriageway maintenance budget remained in line with last year at £14.2 million per authority.
- Local authorities in England and Wales reported that on average they would have needed an extra £7.4 million each last year to maintain their network to their own targets. This equates to a total carriageway maintenance budget shortfall of £1.25 billion, an increase of 58% on the figure reported 10 years ago.
- £16.81 billion is now reported to be needed, as a one off, for local authorities to bring the network up to their ideal conditions and the work would take 12 years to complete. In the last decade this backlog figure has increased by 4.2% from £11.8 billion reported in Alarm 2016.

7.5 Financial Management - Medium Term Financial Strategy

The County Council's Medium-Term Financial Strategy (MTFS) is designed to establish the financial position for the Council over a 4-year period.

The MTFS highlights budget challenges and the assumptions on which the budget is based. The strategy identifies funding shortfalls and efficiency savings or service reductions that may be required to balance the budget.

There is an element of uncertainty that surrounds the MTFS, in the form of revenue allocations from Government, the funding from this source, and pressures from demand led services. Specific issues relating to the Highway Service will need to be considered when developing the MTFS.

Principally, escalating costs in the construction industry due to inflation will result in less work being delivered, unless additional funding is made available. This may have a detrimental impact on the quality of the network and will place increased importance on prioritisation processes.

7.6 Future Asset Maintenance

The highway network is the council's largest asset. As such it represents a very large financial and reputational risk if it is not maintained and operated in line with best practice.

To ensure that we have a safe, resilient, sustainable network on which we can rely, a longer-term approach and significant capital investment is needed. Sufficient long-term planned investment for the highway network is essential to provide a safe and well-managed network.

The current level of capital funding is not sufficient to maintain its 'steady state' condition, and we remain in a situation of managed decline. This has an adverse impact on the revenue funded service, as this decline results in a higher number of defects that require an increased proportion of the revenue budget to be spent on reactive repairs to keep the highway safe.

Managing our highway network is a critical challenge. It requires careful consideration of the balance between managing an ageing network, high public expectations, reducing resources, less available funding and an increased pressure on services.

The highway network has a wide array of assets, each of which is affected by continual use and sometimes damage. Keeping each item in a safe and serviceable condition represents a considerable challenge and risk which needs to be managed.

7.7 Future Funding Allocations

The following tables show extracts from Leicestershire County Council's funding allocations, which were published in the annual Medium Term Financial Strategy (February 2025). Allocations may change, subject to Council priorities.

The 2025/26 element of the Capital Programme included investment in the Transport Asset Management (TAM) programme – preventative and restorative highways maintenance.

Figure 12: Extract from published MTFS 2025-29 (report Appendix F - Capital Programme)

Gross cost of project	Transport Asset Management	2025/26 £000	2026/27 £000	2027/28 £000	2028/29 £000	TOTAL £000
8,200	Capital Schemes and Design	2,168	2,177	2,177	1,677	8,198
3,540	Bridges	852	928	928	833	3,541
1,990	Highway Flood Alleviation	483	501	501	501	1,986
12,470	Street Lighting	3,137	3,137	3,137	3,062	12,473
1,120	Traffic Signal Renewal	281	281	281	281	1,124
16,110	Preventative maintenance (surface dressing)	4,027	4,027	4,027	4,027	16,108
54,290	Restorative (patching)	13,885	13,788	13,788	12,828	54,289
70	Public Rights of Way maintenance	15	17	17	17	66
630	Network Performance and Reliability	154	157	157	157	625
		25,002	**25,013**	**25,013**	**23,383**	**98,410**

Figure 13: Extract from published MTFS 2025-29 (report Appendix E - Revenue Programme)

Budget 2024/25		Employees £	Running Expenses £	Internal Income £	Gross Budget £	External Income £	Net Budget 2025/26 £
Highways and Transport Operations (Highways Operations Services)							
3,472,810	Staffing & Admin delivery	5,019,880	295,820	-750,570	4,565,130	-93,150	4,471,980
5,907940	Environmental maintenance	2,149,440	4,670,490	-635,000	6,184,930	-74,520	6,110,410
2,561,680	Reactive maintenance	653,420	2,873,270	0	3,526,690	0	3,526,690
1,997,040	Winter maintenance	739,720	1,257,320	0	1,997,040	0	1,997,040
	Highways and Transport Technical Support Services						
2,537,260	Street Lighting Maintenance	507,160	2,353,740	0	2,860,900	-96,920	2,763,980
487,210	H&T Operations Management	496,650	5,300	0	501,950	0	501,950
34,440	Cyclic Maintenance	2,670	31,770	0	34,440	0	34,440

The February 2025 MTFS report noted that:

- there are several challenges in the Capital Programme, with increased costs on some major schemes due to the impact of inflation and weather-related delays, as well as additional pressures in Highways Maintenance.
- Over the period of the MTFS growth is required to meet demand and service pressures, with the main element of growth including highway maintenance.
- Highways maintenance – annual increase of £11m, four-year total £44m. The annual amount includes £1.9m allocated as an incentive element. This means the Council will need to comply with the incentive requirements to secure this funding.
- There are many government grant allocations not known after 2025/26, including the DfT maintenance and integrated transport block grants. There are also significant pressures in Highways Maintenance as it becomes increasingly difficult for the Council as the local highways authority to balance dealing with immediate works under existing policies with investment in proactive maintenance to reduce long term costs.

8. Risk

8.1 Overview

Risk is an intrinsic element of the management of highway infrastructure assets. It cannot be removed entirely, but it can be managed. It is important that these risks are identified, evaluated, and managed within reasonable parameters, in order to optimise the value of the available resources and make the best decisions.

Asset failure is a corporate risk which, together with other asset risks, must be managed effectively. This must be done in a way that minimises the impact to our customer service and environment, whilst ensuring the safety of our road users, our people and our supply chain.

Our approach to managing risks should be supported by proactive measures and informed by the data that we hold for our assets and their performance. This will be achieved through our intelligence led approach, using our data and information to make evidence-based decisions.

A risk-based approach for highways provides a framework for making proportional decisions about maintenance and repair activities. When assessing risk a range of factors are considered, including:

- data and evidence
- level of risk and likelihood of occurrence
- likelihood of asset failure
- potential consequences and the severity of outcome on the asset or its users
- the hierarchy of the network
- priorities
- affordability.

We will assess risk when:

- managing highway infrastructure maintenance
- setting policy and strategy
- setting levels of service
- determining repair priorities and replacement programmes
- operations, including safety and service and condition inspections
- investment and procuring the service
- managing all associated data and information.

8.2 Challenges

The Council faces a range of challenges that may need to be considered when assessing risk, including:

- **Financial** - Availability or impact, including the Government's Budget, inflation, energy prices, reduced budgets, higher operational and/or maintenance costs, contractual issues
- **Legislation, political and legal** - Changes in legislation, political policy, legal challenge and delays associated with procuring and awarding contracts etc.
- **Customer, stakeholder, partner** - No stakeholder gain, objections, difference in opinion.
- **Future growth** – Proposals for many new jobs and homes in the county will have a significant impact on our transport network. It is predicted that by 2043 there will be a need to accommodate at least an additional 120,000 homes.
- **Connectivity** – There is a need to improve connectivity by walking, cycling and public transport and other forms of connectivity such as digital.
- **Rural areas** - Residents in rural areas have specific challenges and currently have fewer alternatives to the private car.
- **Inclusivity** – Some communities face barriers to transport which need to be removed to create an accessible and fair transport system for all residents
- **Construction** - Fault construction, cost escalations and delays.
- **Safety** - Poor maintenance decisions.
- **The private car** – There has been a 36% increase in car vehicle miles since 1993, which has had negative impacts on health and the environment. It is predicted that by 2043 there will be a further 29% increase in vehicle kilometres travelled across the county
- **Decarbonisation** – Recommendation 32 (Carbon) of the Well-Managed Highway Infrastructure: A code of practice requires the impact of highway maintenance activities (in terms of whole life carbon costs) to be considered when determining appropriate interventions, materials and treatments. It is predicted that by 2043 there will be a further 5.5% increase in carbon emissions.
- **The environment/weather** - including flooding and precipitation, extreme temperatures, landslides and high winds.
- **Biodiversity** - There is a diversity of habitats within and associated with the county highway network. Where highways work has the potential to either directly or indirectly affect valued biodiversity, checking ecological constraints is a vital first consideration
- **Technology and development of sustainable mobility** – The transition to electric vehicles (EVs), changes to technology, smart mobility and failures of technology

Environmental Challenges

Leicestershire County Council faces increasing risks to its operations and assets from climate change and extreme weather events.

Leicestershire County Council undertakes a full climate change risk and resilience review and assessment, as well as reviews of the climate change risk register, to determine whether there has been any change in risk, which involves:

- Carrying out a review of the global and UK position on climate change
- Assessing the latest climate projections (UKCP18) for the UK and for the East Midlands
- Reviewing the scientific evidence on actual climate changes in the UK
- Reviewing the Committee on Climate Change's Assessment of UK Climate Risk (3UKCR)
- Carrying out an assessment of the climate change risks to the Council based on three groups of services, namely critical services, resilience assurance services and infrastructure asset management services.

Our Environment Strategy, along with related strategies and policies, provide an overarching framework with the aim to protect and enhance the environment. This includes supporting green and blue infrastructure projects through partnerships and collaborations to support biodiversity. Good asset management contribute towards these aims.

The impact of environmental change on road infrastructure

Flooding and Precipitation

Ways in which flooding and precipitation can cause damage and disruption:

- Drainage systems can be overwhelmed, which can lead to roads being inundated, blocking traffic, and can lead to roads and underlying earthworks becoming waterlogged, leading to premature deterioration.
- When road surfaces are waterlogged for a prolonged time, asphalt can become weakened, leading to potholes and faults.
- Scour – the erosion of soil or rock at the foundation of a structure – is the main cause of bridge failure in the UK.
- Earthworks, such as slopes and embankments, can fail when the ground is saturated by water.

Extreme Temperatures

Both extreme heat in the summer and extreme cold in the winter pose threats to road infrastructure. High temperatures will result in expansion (which can lead to cracking), bleeding (when a thin film of asphalt appears on the road surface making it slippery) and rutting (when vehicles create depressions or grooves in the softer road surface). High temperatures will increase the frequency of droughts, which can cause drying of soil and plants, leading to earthwork problems. Cold weather can lead to ice and snow.

However, warming winter temperatures will lead to reduced snow and ice removal costs and will lessen the adverse environmental impacts from the use of salt and chemicals

on roads and bridges. It will extend the construction season and improve the mobility and safety of passenger and freight travel through reduced winter hazards.

Landslides and High Winds

Landslides and high winds have the capacity to cause immediate damage and danger. High winds can topple high-sided vehicles, which is a clear safety threat, and can cause infrastructural damage, damage traffic signs, or cause debris and vegetation to fall onto the road.
The impacts from such events have been considerable on communities, both social and economic, from which the Council has identified those critical highway assets where any limitations or failure of the infrastructure would result in a significant impact to the local, and potentially the national economy, and affect the ability of public/emergency/health services to carry out their responsibilities.

Protecting the environment and dealing with extreme weather

In recent years, several extreme weather events have had a significant impact on transport infrastructure in the UK. It is accepted that these events are becoming more frequent, and this is likely due to environmental change. In managing the highway, the County Council needs to adapt its approach to consider environmental change in the decisions it make.

Environmental change is not a local phenomenon, but the activities of the County Council will contribute to this threat. The County Council will take account of the environmental impact of its maintenance treatments and services and where feasible, either reduce or mitigate these impacts. The County Council will also seek to maximise the serviceable life of assets and therefore reduce the frequency of asset renewals. Considerations shall include:

- Deploying preventative treatment strategies, where viable, to delay deterioration in the asset.
- Using polymer modified binders to increase the softening point of bitumen to make our roads more resilient to increasing road temperatures.
- Collaborating with the supply chain to reduce emissions arising from the transport of materials.
- Scheduling work to minimise congestion because of maintenance interventions.

Sustainability

The Council will continue to take steps to minimise the environmental impact caused by its management of highway assets. Within the funding and resources available we will explore innovative materials, treatments and techniques (Such as Warm Mix Asphalt / Nanotechnology /Cold applied treatments) that will maximise our use of environmentally friendly and recycled materials, minimise waste and reduce the use of carbon. This approach will place sustainable solutions at the core of our approach to

highway maintenance, considering any resultant actions to mitigate direct and indirect impacts of on the environment and communities by considering:

- Nature Conservation and Biodiversity
- Effects of Extreme Weather / Environmental Impact
- Carbon Costs – footprint, material appraisal, waste management and recycling
- Energy Reduction
- Noise / Air Quality
- Light Pollution
- Water sources

Key Development in Sustainable Mobility and Challenges for the Council

Over the past decade, the UK has made substantial progress towards more sustainable mobility. Continued collaboration between government, industry, and communities will be vital to overcoming barriers and realising a greener, healthier transport future for all. The following are the key developments in sustainable mobility and the challenges the council is facing:

Transition to Electric Vehicles (EVs)

The move to electrification has been a huge success in the UK however the increase in weight of EV's compared to that of combustion engine vehicles will cause further damage to our highway network.

Whilst public EV charging infrastructure shows improvement year on year, with upwards of 77,000 public chargers now in service the issue for us is where do we locate these, electricity supply, obstruction within the highway (trailing cables), maintenance and more clutter in the highway.

Improvements in Public Transport

The UK has invested in upgrading bus and train services, with an emphasis on electrification and cleaner fuels. And there are new innovations like e-bikes and e-scooters which are starting to transition people to a more sustainable future.

Active Travel and Urban Planning

The government has encouraged walking and cycling as viable everyday options. Funding has been allocated to create safer cycle lanes, pedestrian zones, and bike-sharing schemes.

Innovation and Smart Mobility

Technological innovation is driving new forms of mobility. The UK is a leader in trials of autonomous vehicles, smart traffic management systems, and integrated mobility platforms that combine various transport modes.

Biodiversity

There is a diversity of habitats within and associated with the county highway network. Routes can also pass through, over, or next to grasslands, woodland, wetlands, rivers, and estuaries. Man-made features associated with highways can be important for biodiversity, e.g., boundary trees, bridges, ditches, and balancing ponds.

Adverse ecological effects associated with highways construction, operation or maintenance include the loss, modification, disturbance and fragmentation and habitats and/or species.

Where highways work has the potential to either directly or indirectly affect valued biodiversity the checking of ecological constraints is a vital first consideration. This can avoid dealing with wildlife matters at a late stage. Early consideration of biodiversity impacts reduces the risk of future delays which can be costly, and it also allows opportunities for taking wildlife into account to emerge. However, ensuring the safe use of highways for users is a priority over biodiversity considerations particularly in the case of emergency works and actions.

Objectives

- To raise awareness of biodiversity matters affecting highways work
- To ensure highway activities operate within wildlife law
- To reduce the extra costs and delays from not identifying biodiversity issues at the earliest appropriate stage
- To set out practical and realistic activities that will contribute to the protection and enhancement of biodiversity.

8.3 A Risk-Based Approach for Leicestershire

We have developed and introduced a risk-based approach, taking account of local needs, priorities and affordability.

This is consistent with ISO 55001 (International Asset Management standard), which states that ‘asset management translates the organisation’s objectives into asset-related decisions, plans and activities, using a Risk Based Approach’.

The key actions of this risk-based approach are:

- Understanding our statutory duties and ensuring that these are fulfilled.

- Identifying the value and criticality of the County Council's assets and operations to fulfil the asset management objectives and achieve the levels of service.
- Gathering and utilising sufficient and appropriate information to support risk-based decisions.
- Ensuring staff have sufficient knowledge and competency to make risk-based decisions.
- Identifying and prioritising risks associated with the assets using systems that are consistent with the County Council's corporate approach to risk management.
- Implementing appropriate controls.
- Documenting risk-based decisions, ensuring that the whole approach is transparent.
- Applying the risk-based approach equitably for all stakeholders and in all locations.
- Communicating the approach and the outcomes of where it is applied to stakeholders.

Our risk-based framework considers the following types of risk:

- Safety of all highway users.
- Fulfilling our legal duties.
- Financial loss for the County Council.
- Impacts on the economy.
- Impacts on, and generated by, the environment.
- Accessibility or availability.
- Reputation and customer satisfaction.

The following examples show how our risk-based approach has been used:

- Using the resilient network, which ensures that economic activity and access to key services are maintained, supports improved decision making and understanding on the value of our assets.
- Updating the network hierarchy to enable us to undertake inspections at appropriate frequencies and respond to defects within appropriate timescales.
- Defining appropriate cleansing regimes for drainage using improved understanding of the current performance of the asset.

We will continue to develop and maintain our operational procedures throughout the life of this plan.

Our Highway Asset Management Policy (HAMP) and Highway Asset Management Strategy (HAMS) provide further information on our risk-based approach.

8.4 Using Data and Evidence to Identify Risk

We utilise data and evidence to support our risk-based decisions. As an example, a comparison between the condition of Leicestershire's roads and those in England

provides useful information on which to make decisions. As an example, by assessing the condition of our road network we can determine the risk of future deterioration and look to mitigate this where possible.

Figure 14 Condition comparison: Leicestershire's roads and England's (Annual Local Authority Road Maintenance (ALARM))

Survey year	2022			2023			2024			2025		
Road class	A roads	B & C roads	UC roads	A roads	B & C roads	UC roads	A roads	B & C roads	UC roads	A roads	B & C roads	UC roads
Poor condition	2	4	10	3	4	10	3	4	12	3	4	12
Moderate condition	22	23	90	25	25	90	26	25	88	26	25	88
Good condition	76	73		72	71		71	71		71	71	
ALARM England Red	4	6	15	4	6	16	4	6	16			
ALARM England Amber	24	27	27	23	27	29	27	30	32			
ALARM England Green	72	67	58	73	67	55	69	64	52			

The ALARM survey indicates that:

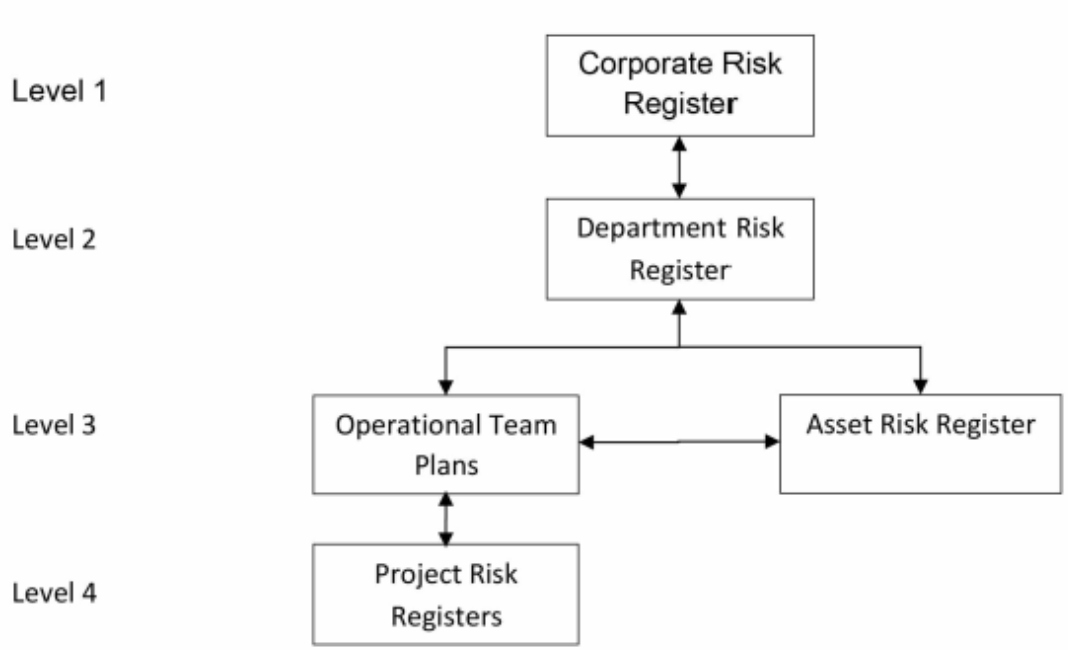
- There are a lower number of poor (red) roads in Leicestershire when compared to England, across all class of road (A, B&C and unclassified).
- Roads in moderate (amber) and good (green) condition are generally comparable for A class and B&C class roads
- Leicestershire's unclassified roads are in substantially worse condition than for England.

This information indicates that there is a risk that our unclassified road network, which is performing substantially worse that for England, could deteriorate further to a poor (red) condition.

8.5 Managing risk – risk registers

The County Council maintains and reviews several risk registers in a multilevel risk management framework.

Figure 15: Risk Management Structure



Risks are captured and managed at operational and project level (levels 3 and 4). These risks can be escalated to the department risk register (level 2) and to the corporate risk register (level 1), if appropriate.

Some risks will exist in both the operational team plans and the asset risk register. The asset risk register facilitates management across all asset groups.

It includes assets at risk that will:

- Impact on the overall delivery of the plan.
- Affect the resilience of the highway network.

The register quantifies and assesses the risk, together with the proposed action and investment to mitigate the risk.

The asset risk register is one of the inputs to the formation of the integrated works programme and it will be reviewed annually, at a minimum.

9 Our Investment Strategy

9.1 Overview

Leicestershire County Council's Highway Infrastructure Asset Management Plan (HIAMP) sets out a strategic approach to maintaining and improving the county's highway network.

This **Investment Strategy** outlines the key initiatives and priorities that will guide our efforts over the coming years to deliver the Plan. It reflects our commitment to resilience, sustainability, innovation, and continuous improvement, ensuring that our highway assets continue to support the needs of residents, businesses, and visitors.

By aligning with national best practice and embracing integrated planning, data-driven decision-making, and collaborative working, we aim to deliver a safe, efficient, and future-ready highway service.

9.2 Delivering our Asset Management Framework

In this Plan we have provided details of our approach to managing our highway network.

- We use **Asset Inventory** and **Condition Data** to assess network maintenance need.

- We look at the needs of the users of the asset and prioritise key routes in line with our **Network Hierarchy.**

- We have developed **Maintenance Strategies – Appendix B** for our assets using Lifecycle Planning principles to support choosing the right treatment at the right time.

- We follow our **Risk Based Approach** to prioritise funding where it is most needed, making the most of the limited funding available.

- We have strong **Governance** and **Performance Management** processes in place to ensure effective delivery of our programmes.

- We recognise the **Challenges** to our highway network including extreme weather events and look to work with partners to explore new and innovative solutions to mitigate them.

There are a range of things that we would like to invest in, to ensure that we continue to maintain and manage our highway network as effectively as possible. These include:

- Using Life-Cycle principles to further develop investment strategies for each of our asset types to manage identified risks and where possible focus on more planned maintenance treatments (see **Appendix B**)

- Develop a **Resilient Network Strategy** to identify the key priorities and actions that we need to invest in, to address the risks of changing weather patterns, increasing demand and the potential for other sudden disruption

- **Better Data** - We need more consistent, high-quality data to help us make informed decisions, utilising Artificial Intelligence (AI) and data tools. Our immediate focus is on:
    - A thorough assessment of asset data issues, including missing data, data quality issues, and gaps in processes, systems or responsibilities for ensuring that data is maintained effectively. Each issue will be assessed for risks and benefits to the County Council, with the intention of producing a prioritised list of data improvement projects that would make best use of the limited resource we have.

- Develop a more formalised **Asset Data Management Strategy / Plan,** that formalises how our highway asset data is collected, maintained, governed and used. This would include:
    - Clear governance and data ownership.
    - Defined data standards and validation processes.
    - Integration of data capture into project and maintenance workflows.
    - A prioritised forward programme of data improvement projects.
    - Mechanisms for improving data accessibility and visibility.
    - Regular review and continuous improvement processes.

- Develop tools to make **Integrated Planning** of our maintenance and improvement programmes easier to drive efficiency and economies of scale where possible.

- **Whole Life, fence to fence asset management** - we aim to manage highway assets as a complete, connected system - from boundary to boundary - throughout their entire lifespan. This means planning for design, construction, maintenance, and renewal in a joined-up way, rather than treating each part of the network in isolation. By taking a whole-life approach, we can make better decisions, reduce long-term costs, and improve overall performance and resilience.

- **Collaboration and teamwork** - sharing best practices, embracing technology, and working across boundaries will unlock efficiencies. The success of our asset management plan lies in teamwork and collaboration.
    - We regularly benchmark our activities against National Highways and Transport (NHT) surveys, allowing us to reflect on our service performance.
    - Support from the Department for Transport (DfT), the Road Surface Treatments Association (RSTA), Midland Highway Alliance Plus (MHA+), and LCRIG enables us to keep up-to-date with the latest developments.
    - By embracing asset management principles and fostering a collaborative environment, we can ensure the effective delivery of our services while

meeting the needs of our community.

- **Innovation -** Delivering this Plan requires innovation, which is essential to addressing key stakeholders' aspirations, as well as sustainability objectives. Innovation will not just address the challenges but will also provide opportunities to achieve the objectives of this Plan by using new approaches and technologies, including digitisation and machine learning.

- **Continuous improvement** is a key to ensuring that the Highway Service is cost effective, environmentally sustainable, delivers the service objectives, and meets the expectations of its customers. One of our asset management strengths is our commitment to continuous improvement. By regularly reviewing asset management and updating this Plan, we can identify trends, address recuring issues and implement best practice.

  Our aim is to create a responsive and adaptive asset management framework that evolves with the needs of our community, ensuring we remain at the forefront of effective service delivery.

- **Preparing For the Future** - sustainable asset management links highways to the wider environment and sustainability principles of the Council. The long-term approach, driven by asset management, considers the actions required to mitigate both the direct and indirect impacts of highway maintenance on the environment and our local community. These include:
  - Active Travel (walking and cycling)
  - Biodiversity
  - Effects of extreme weather
  - Environmental impact
  - Air quality

10 Performance Management

10.1 Overview

Our overall approach to managing the performance of our assets is set out as a generic asset management system in our HAMP and HAMS

The performance of our individual assets is assessed using a range of inspections, as set out in Section 4. Each type of inspection has a particular function or objective that collectively ensures that the County Council understands the performance provided by the asset.

We monitor overall performance and report progress in the Council's 'Annual Deliver Report and Performance Compendium', which is reported to the County Council's Cabinet in November.

As an example, the November 2024 Performance Compendium noted that for the 18 'Transport performance indicators, 6 displayed improvements compared to the previous period, 6 showed a decline and 6 showed no change.

- **Improvements** - covered use of local buses and park and ride services, satisfaction with cycle routes and facilities, satisfaction with pavements and footpaths, and the number killed or seriously injured on Leicestershire roads.
- **Decline** - included satisfaction with the condition of highways, satisfaction with traffic levels and congestion, condition of the unclassified road network, total road casualties and carbon emissions from transport.
- **No change** - covered road condition for the classified road network, satisfaction with local buses, satisfaction with rights of way, road safety satisfaction and average vehicle speeds.

It also noted that the Council was amongst the highest rated county councils for satisfaction with the condition of highways in 2023 (NHT satisfaction survey), although overall satisfaction had since dropped.

10.2 Performance Management in Leicestershire

This Plan considers the completeness, robustness and quality of asset inventory and condition data, the current levels of growth, and looks to take into account future demands and needs. This will support long-term planning, as suggested in the Asset Management Strategy, aligning our business plan to our corporate Strategic Plan and setting out a means for determining continuous improvement in the performance of our assets over time.

The Environment and Transport department of Leicestershire County Council currently uses Ideagen software (formerly known as Pentana), to monitor and manage performance, as part of its review processes.

Ideagen has recently been modified to enable the management of the overall condition and performance monitoring of the existing highway infrastructure assets, in one single location. The format for displaying overall condition, including targets, risks and opportunities is currently in the development phase. This will highlight the current and historic performance of each asset.

Any performance gaps can be addressed by specific actions, including improving communications, public visibility of data, setting investment priorities for assets and focussing on preventative rather than reactive maintenance.

The main benefits include the ability to engage and inform dialogue with elected members and to have a non-technical approach to explaining issues to the public.

The Environment and Transport department's performance framework is administered through the Ideagen risk performance management system. Each team within the department has a team plan containing actions, risks, performance indicators (PIs) and management information (MI). Actions and PIs will link to the departmental objectives and to the Council's strategic outcomes.

Performance monitoring is undertaken monthly at both branch and departmental levels through the Branch Management Team (BMT) and Departmental Management Team (DMT) and includes a dedicated quarterly performance meeting with DMT. Reporting is undertaken on an exception basis using real time information from Ideagen Risk. As such there are no physical reports, but any subsequent actions are recorded and assigned to relevant officers through the Ideagen Risk system for monitoring progress.

There is a departmental PI set containing the key performance indicators in demonstrating delivery against the council's strategic outcomes. These PIs are reported corporately, including to relevant Overview and Scrutiny committees and are reported in the Council's Annual Performance Report.

Performance indicators that are specific to asset management performance relate to road condition (Principal, Non-principal and unclassified) and public satisfaction of road condition, pavements and footpaths, the rights of way network and cycle routes and facilities (derived from the National Highways & Transport Network (NHT) public satisfaction survey).
The department has participated in the NHT Public Satisfaction survey since its inception in 2008 and supplements this with participation in the associated Public Representative survey for Members and Parish Councils.

Additional performance indicators and management information are included in team plans, when there is team responsibility for delivery. PIs relating to the performance of, or public satisfaction with, specific assets sit at this level and fall within the performance monitoring regime detailed above.

Our asset management systems help us track, monitor and manage our highway assets throughout their lifecycle, helping us to improve operational efficiency, reduce costs and ensure compliance.

Reporting Performance

The Cabinet considers an annual Delivery Report and Performance Compendium, which includes performance reporting on overall satisfaction with the condition of highways, cycle routes, rights of way network and condition of pavements and footpaths.

The Council's Highways and Transport Overview and Scrutiny Committee considers a quarterly performance report, which includes key performance indicators. This report highlights the performance of a variety of highways and transport key performance indicators (KPIs), including overall satisfaction with the condition of highways, cycle routes and facilities, rights of way and pavements and footpaths

11 Communication

11.1 Overview

Effective communication with stakeholders and customers is essential. We need to ensure that residents, motorists and businesses are informed about work on our highways, our services, and any changes to them. Our communications need to be informative, timely and easily accessible.

Implementing the principles of effective asset management ensures that we make transparent, consistent and well-communicated decisions.

11.2 Aims

Through our communications, we aim to inform the public and stakeholders about road works, highway activities and issues, as well as changes to our asset management and maintenance approach.

We will also encourage people to access 'self- service' information, through information available on our website.

The aim of our communications is to:

- Inform the public about physical road works, operational highways issues (including defect repairs, winter service etc) and value-for-money highways and transport activities in a timely manner.
- Encourage public engagement through our communications and raise awareness.
- Encourage people to make the best use of reporting channels, including 'self-serve' via our website, which reduces the number of highways related enquiries.
- Ensure the public is aware of funding bids awarded to the council, which aim to help maintain and enhance the local highway network.

11.3 Key Messages

The overarching messages that need to be communicated are:

- Spending on the highway asset – we have finite resources.
- How we prioritise and spend the money to maximise outcomes.
- Our achievements – what we have achieved in the last 12 months and what the benefits have been to our customers.
- Our performance – how we are performing against our targets.
- Our forward works programmes – what we will be doing (where and when).
- Managing expectations – publicise standards and levels of services customers can expect.
- We value customer feedback.

Our key messages regarding highway maintenance are:

- We will prioritise high risk repairs when responding to highway defects. This may mean that other repairs could take longer, but we will be clear about timescales.
- We will focus on planned maintenance work to help slow down the deterioration of the highway asset, if sufficient funds are available.
- Preventative work will be carried out on a risk-based approach and determined on how roads are categorised, in a new classification of highways.
- We are exploring new and more efficient ways of working. This includes working with parish councils to manage and/or deliver some aspects of highways maintenance and making use of new and emerging technology (e.g. for a targeted approach to gulley cleansing) to deliver cost savings.
- Keeping winter services, such as gritting, at current service levels.

We will highlight the action we are taking to keep the network running effectively, such as emergency repairs, closures due to extreme weather, any planned maintenance and gritting.

We will also provide winter driving advice and let people know how they can find out about services and maintenance work (e.g. grass cutting schedules) online, together with consultations on future schemes.

Communication methods used

Where practicable, communications should be timely, accurate, informative and accessible, using tailored communications tools that are appropriate to inform the different target audiences. We have several communication methods available, including:

- Social media (for example X and 'Choose How You Move' Facebook page)
- Press releases
- Local TV / news
- Local radio stations
- Council website
- Traditional media and digital
- Door-to-door letters / leaflets
- Leicestershire Matters (the Council's newsletter to residents)
- Parish councils' highways newsletter
- Stakeholder workshops
- Public meetings / exhibitions
- Partners' communication channels
- Customer Service Centre.

Monitoring, review and evaluation

It is important that we regularly monitor and review the effectiveness of our communications. Key indicators of audience awareness and the effectiveness of our communications will be:

- Media Coverage (volume, tone, positive/negative)
- Social media coverage
- Website use
- Use of self-serve functions on the Council's website
- Level of response to consultations
- Satisfaction levels from surveys
- Queries / feedback from members of the public and elected members

We will review and evaluate our communication activities, together with service user feedback and management discussions.

Customer Feedback

It's important that people can contact the Council to report issues or share their views on future priorities. Feedback helps us understand what matters to our communities and informs how we manage and improve the highway network.

We recognise two main types of feedback:

1. Requests – These relate to current or urgent issues, such as a pothole or a blocked drain, or formal petitions. We aim to resolve these either by carrying out the necessary work or by providing clear information about what action will be taken.

2. Priorities – These are broader suggestions or concerns about how the highway network should be managed in the future. They help us understand what residents and stakeholders value most, and guide long-term planning and investment decisions.

12 Competencies and Training

12.1 Overview

It is essential that our staff are competent to carry out their duties, and that they have the right training to be able to perform their function. Those staff involved with asset management are based within the Environment and Transport (E&T) department of Leicestershire County Council (LCC). The approach to all staff training in the department is outlined below.

Types of Training

Staff training is generally in one or more of the following categories:

- Organisational mandatory/statutory training – such as data protection, fraud awareness, equalities and inclusion. These courses are mandatory for all LCC staff, regardless of their role. This ensures that LCC employees have received training in areas critical for the Council to operate its public service duty.

- Job specific mandatory/statutory training – such as Construction Design Management, or New Roads and Street Works Act, financial management and procurement, ensuring that staff in specific roles have the appropriate legislative knowledge to be able to fulfil their role.

- Job specific developmental training – such as specific training on Compulsory Purchase Orders ahead of, for instance, legal orders for a major project being prepared, or training several staff in the same skill (such as vehicle inspections) to ensure resilience within a large team.

- Individual specific developmental training – such as project management training to improve an individuals' knowledge, or leadership courses to develop staff towards a future role in the organisation.

Succession planning Training is targeted to ensure staff have the right skills for succession, and this includes a graduate training programme for transport planners.

In addition, the E&T department runs various job specific programmes to develop staff, to ensure that it has the appropriate skills and knowledge for succession planning. These programmes are, in the main, run as apprenticeships and have been targeted in areas where historically it has been difficult to recruit. These courses include Civil Engineering, Transport Planning, Arborists, Forest Operatives, Highways Operatives (Groundworkers), Heavy Vehicle Mechanics, supervisors and administration roles.

Furthermore, subject to financial constraints and prioritisation of the above training, staff can request to attend seminars/ webinars and industry conferences both relevant to their work, and for their personal development.

Training Governance

Within the E&T department there is a training and development board. This prioritises training activities, guides departmental training and development activities and ensures good communication on training matters throughout the department.

The training and development board consists of all E&T departmental service heads, HR business partner, corporate learning and development advisor, along with key support staff from across the department. Staff that lead specific L&D projects also attend. The board meets three to four times a year, and reports to the Departmental Management Team (the E&T Director and Assistant Directors) two to three times a year.

Training Identification

Training needs for individuals are identified through an Annual Performance Review (APR) process, which is carried out for all staff by their line or team manager. The APR process is mandatory for all staff and should be completed for each individual once a year.

The County Council provides APR guidance to staff using internal Council systems (the intranet), which includes links to e-learning on the APR process. The APR is for the line manager to ensure that staff are competent to carry out their duties, that staff are productive and are meeting their job specific targets / objectives. The APR also ensures that staff have an effective, timely, discussion about performance, development needs and any support they may need from their manager.

The APR process identifies competency and training requirements. After the APR, managers are asked to enter identified training requirements onto one central spreadsheet that is used to manage training requests. This enables prioritisation at a departmental level, ensuring that resources are deployed effectively to deliver necessary training.

The annual APRs are discussed throughout the year during regular one-to-one discussions, or at team meetings where forward planning and objectives are reviewed and discussed. Through this, additional training may be identified. This may be because of changes of legislation/national policy, or where a project or function requires additional competencies or skills. Managers then request training in the same way as outlined above.

Training Resources

Apprenticeships are delivered through the Apprenticeship Levy. The Levy pays for course fees, and LCC provides the necessary time away from work along with, for example, travel subsistence and other related costs to enable staff to complete the apprenticeship.

Where possible, the Council develops its own suit of e-learning training programmes. These cover all organisational mandatory/statutory training. Some of these courses also cover job specific training such as financial management systems, and most recently, Construction Design Management regulations, making these courses repeatable and easily accessible to all staff with access to a computer.

Where staff do not have access to a computer, essential training is delivered through toolbox talks, printed workbooks, bespoke away-days or annual staff meetings. In some cases (for example roadworkers) staff have been issued with mobile devices that can deliver daily updates, toolbox talks and bulletins, and other specific training requirements.

For other job specific or individual training, there are three key sources of funding:

- from within team annual budges (usually where training must be repeated on a regular and/or frequent basis)

- from specific project (or grant) funding, where upskilling staff is necessary to meet the project (or grant) objectives

- from a corporately allocated annual budget.

Evidence of Competency

All dates of APR's are recorded on the staff management system 'Oracle Fusion'. Individual APRs are kept by staff and their managers.

All staff with computer access have an individual digital training record on the Council's internal Learning Hub. This digital record shows all training undertaken and will remind staff when training refreshers are due. This Learning Hub also allows staff to book onto various courses.

All managers (and staff) have access to the training database – an interactive data visualisation software system, called Tableau. This database reads data from the LCC Learning Hub and displays reports showing completed training, and overdue training (as appropriate). Though initially set up to display organisational mandatory training, over time the system is being updated to show team specific mandatory training needs, and refresher intervals.

The data above is regularly analysed and compliance reported through the departmental performance management system, Ideagen. These reports are presented to Assistant Directors, and then the Departmental Management Team, to review compliance and to act as necessary.

The E&T department of Leicestershire County Council has mechanisms in place to ensure staff have the correct training, so they are competent to carry out their roles.

Staff can raise training and development needs through their APR's. Line management have the tools to request and monitor training through a departmental training request spreadsheet and through Tableau.

The training and development board is in place to guide and prioritise training requests and seek resources to deliver this training, as appropriate.

Strategic management has visibility of training progress in the department through various reporting mechanisms and can re-direct training as necessary through the training and development board.

In conclusion, the E&T department has comprehensive processes, training programmes, and records to ensure that staff have the training they need, and that they are competent to carry out their tasks and duties.

13 Our Future Approach: Governance and Action Plan

13.1 Overview

We have processes in place for governing the development of our highway asset management programmes.

We have developed an Investment Strategy, which identifies programmes of works which, within the budget available, will give us the best long-term results for the network and our residents, communities, stakeholders and partners.

We will continue to develop our approach to how we manage highway infrastructure assets in Leicestershire, following the publication of this plan.

This will be enhanced by benchmarking our data with other similar authorities through the Midlands Highway Alliance Plus and the CQC Efficiency Network.

13.2 Governance

Leicestershire County Council has established strong governance to provide strategic oversight and to monitor asset management delivery across the organisation.

The delivery of this HIAMP will be overseen by the Asset Programme Board. A review will be undertaken at least every three years, in line with the Highway Asset Management Policy and the Highway Asset Management Strategy. A report on progress with any recommendations for changes to the HIAMP will be produced.

Asset Programme Board

The Asset Programme Board (APB) provides strategic governance and programme monitoring support for all approved capital and revenue maintenance programmes and services, ensuring efficient delivery of maintenance schemes across all disciplines, ensuring that they are completed on-time and within financial constraints.

The Board may also put in place control measures to mitigate risks and provide a method to identify significant issues that may be outside of controlled tolerances, escalating them to the Highways and Transport (H&T) Programme Board for executive decisions, where appropriate.

The Asset Programme Board has a risk register, in which risks and issues are logged and recorded.

The Highways Asset Management System adopts the risk-based approach required by ISO 55001 and is aligned with Quality Management System ISO 9001:2015 adopting a process approach.

The Assistant Director (Development and Growth) is the management representative. As such, they will authorise the contents of the Highways and Transport Quality Management System. Where appropriate, they will delegate relevant managers to sign off other processes and procedures in order to promote ownership.

The Quality Management System consists of:

- **Core Processes** -These processes are common to all Highways asset groups/activities covered by the Quality Management System.

- **Activity Processes** -These are contained within specific asset groups, such as forestry and street-lighting, within the scope of the Quality Management System.

- **Instructions and Forms** - Written procedures/notes or templates to supplement and expand information detailed in the various process maps.

13.3 Action Plan

Our Action Plan sets out some of the key actions that we will take to support delivery of our HIAMP.

Area	Action	Delivery
Policy	Development of a new Network Resilience Strategy (NRS)	2027
	Implement any actions coming out of the NRS	2027 onwards
	Critical operating procedures revised to comply with risk-based approach and new hierarchies as developed and implemented	2026 onwards
Data	Completion of the gap analysis of asset data inventory	2026
	Develop an Asset Management Data Strategy/Plan	2027
Network	Introduce new Carriageway and Footway hierarchies	2026
	Develop a cycle network hierarchy	2027
	Develop PROW hierarchy	2027
	Decluttering – decommissioning Strategy and Plan	2027 onwards
Condition	Transition to PAS 2161 – explore the use of new technology to drive efficiency	2026 onwards
Treatments	Further develop Life-cycle Plan based maintenance strategies	2025 onwards
Programmes	Develop multi-year programmes that can be accessed online	2027
Risk Management	Build on current risk management strategy to assess specific risks associated with the maintenance of highway assets aligned with new maintenance hierarchies and Risk-based Approach	2026 onwards

Appendices

Appendix A - Glossary and Acronyms

Glossary

Annual Depreciation - The value by which the asset depreciates over a 12-month period because of condition deterioration.

Asset - An asset refers to an item that forms part of the highway fabric, i.e. carriageway, footway, and street lighting.

Asset Lifecycle Planning - This enables us to work out how much we need to spend and when on our highway assets to maintain their condition at various levels over their lifetime.

Asset Management - Asset Management is a modern approach to managing infrastructure and is being used world-wide to enable businesses, governments, and local authorities to provide the best value for money within their available resources. It is a strategic approach that identifies the optimal allocation of resources for the management, operation, preservation, and enhancement of the highway infrastructure to meet the needs of current and future customers.

Asset Management System - The hardware and software that supports Asset Management practices and processes. Used to store the asset data and information.

BS ISO 55000, 55001 & 55002 - The British and International Standard for the Implementation of Asset Management.

Capital Funding - Grants from Government through the Department for Transport and contributions to fund capital schemes to pay for items like roads.

Carriageway - Refers to a surfaced right of way intended for use by vehicles and maintained at the public expense.

Condition Surveys - Recommended to identify deficiencies which, if untreated, are likely to adversely affect long term performance, serviceability, and safety.

Culvert - A structure that allows the flow of water under an asset.

Cycleway - Facilities used by cyclists. These include cycle lanes on carriageways, cycle tracks adjacent to or away from carriageways, on carriageway provision with cycle symbols and shared use facilities.

Cyclic Maintenance - Routine highway maintenance work that is carried out annually to an agreed schedule. This will include activities such as grass-cutting and gully emptying.

Depreciated Replacement Cost (DRC) - This is a valuation of what it would cost to replace all our assets to their current level of condition.

Flood and Water Management Act 2010 - An Act of Parliament to make provision about water, including provision about the management of risks in connection with flooding and coastal erosion.

Footway - Pedestrian path maintained at public expense that is usually alongside a carriageway.

Gross Replacement Cost (GRC) - This is a capital valuation of what it would cost to replace all our current highway assets with equivalent new ones.

Hazard – A source of potential harm.

Highway - A highway is a road, street or thoroughfare that is maintained at the public expense.

Highways Act 1980 - The Highways Act is an Act of Parliament that deals with the management and operation of the road network in England and Wales. It consolidated previous Acts.

Highways Management Accounts - These are the financial figures that we use to run highways. They help with our capital and revenue funding decisions.

Infrastructure - Infrastructure describes fixed assets that form part of a larger network, such as carriageways, footways, drainage, lighting, fencing and the like.

Levels of Service - Are descriptions of what we want the different types of roads in our network to be like and what users can expect from them.

Maintenance - A term used to describe the activities and operations undertaken to manage/maintain highway assets, e.g. inspection, assessment, renewal, upgrade etc.

Metalled Roads - Those roads constructed with the aid of cement, concrete, bitumen or coal.

Needs Based Budget - This is the funding required to get an asset from its current condition to the condition associated with the desired Levels of Service.

New Roads and Street Works Act 1991 - The Act sets out the expected standards of competency for anyone working on a public highway in the UK. The legislation is designed to regulate and manage activities that take place on public roads.

Optimum Point of Maintenance - This refers to the most economical condition in which to maintain an asset – where the revenue and capital spend required to keep the asset in an appropriate condition are at a minimum.

Pavement - Footway

Preventative Maintenance - The treatment of an asset at an optimal time to prevent asset deterioration, enabling the efficient use of funding. Essentially implementing the principle that 'prevention is better than cure'.

Reactive Maintenance - This refers to routine maintenance work that is carried out in response to problems arising on the highway that could endanger the safety of users. This could include activities such as repair of potholes; broken drain covers and response to flooding events.

Revenue Funding - This is income that the authority gets to deliver everyday services. It is made up of an element of business rates and Government grants through the Department for Communities and Local Government (DCLG).

Safety Fence - A barrier intended to prevent a vehicle leaving the highway.

Safety Inspection - Designed to identify all defects likely to create danger or serious inconvenience to users of the network or the wider community. The risk of danger is assessed on site and the defect identified with an appropriate priority response.

Service Inspection - Contains detailed inspections tailored to the requirements of highway assets and elements to ensure that they meet requirements for serviceability. These inspections also include inspections for network integrity intended to maintain network availability and reliability.

Statutory Undertaker - is a legal term used to describe those organisations and agencies that have certain legal rights and obligations when carrying out development and infrastructure work. Typically, they are utilities and telecoms companies: those who deal with water, gas, electricity, etc.

Structure - A structure can be a bridge, retaining wall or culvert.

The Data (Use and Access) Act 2025 - The DUAA is a new Act of Parliament that updates some laws about digital information matters.

Traffic Management Act 2004 - The TMA gives powers to reduce traffic congestion in towns and cities.

Transport Act 2000 - The Transport Act 2000 requires local transport authorities (LTA's) in England and Wales to develop local transport plans 'for the promotion and encouragement of safe, integrated, efficient and economic transport facilities and services to, from and within their area.

Underlying Condition - The structural strength left in the asset, which enables it to support use and deal with the demands placed on it.

Whole Life Cost - Total cost of the asset over the term of its life including planning, design, construction, acquisition, operation, maintenance, rehabilitation, and disposal.

Whole of Government Accounting (WGA) - This is a central Government initiative to produce a comprehensive set of accounts for the whole of the public sector using generally accepted accounting practice.

Acronyms

Acronym	Meaning
ADEPT	Association of Directors of Environment, Economy, Planning & Transport *(formerly County Surveyors' Society (CSS))*
BCI / BSCI	Bridge Condition Indices / Bridge Stock Condition Indicator
BS EN ISO	British Standard, European Standard, International Standard
CONFIRM	Computer Based Maintenance Management System
CQC	Cost Quality Customer efficiency network (NHT/University of Leeds)
CVI	Coarse Visual Inspection
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
GIS	Geographical Information System
GRC	Gross Replacement Cost
HAMP	Highway Asset Management Policy
HAMS	Highway Asset Management Strategy
HIAMP	Highway Infrastructure Asset Management Plan
LED	Light Emitting Diode
LTP	Local Transport Plan
MTFS	Medium Term Financial Strategy
NHT	National Highways and Transport Network
PROW / ROW	Public Rights of Way / Rights of Way
RoWIP	Rights of Way Improvement Plan
SCRIM	Sideways Force Coefficient Routine Investigation Machine
TRO	Traffic Regulation Order
TSRGD	Traffic Signs Regulations and General Directions (2016)
UKPMS	United Kingdom Pavement Management System
UKRLG	United Kingdom Roads Liaison Group
VRS	Vehicle Restraint System
WMHI	Well Managed Highway Infrastructure
WGA	Whole of Government Accounting

Appendix B - Lifecycle Plans

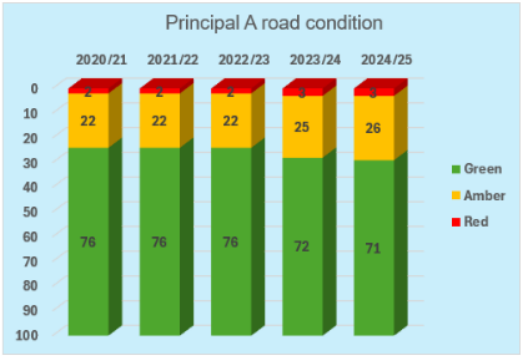
1. Carriageways - Asset Management Life Cycle Plan

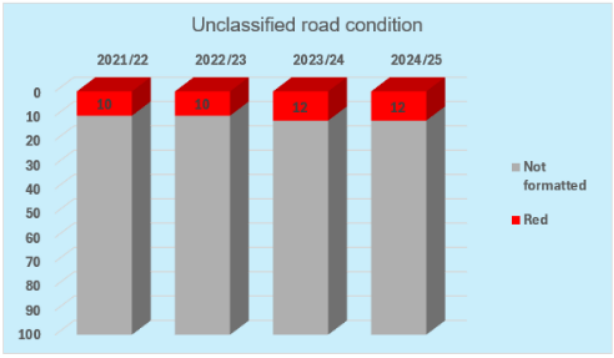
Inventory	
Road Class	**Length (km)**
A roads	424 (263 miles)
B roads	238 (148 miles)
C roads	1,309 (813 miles)
Unclassified roads	2,361 (1,467 miles)

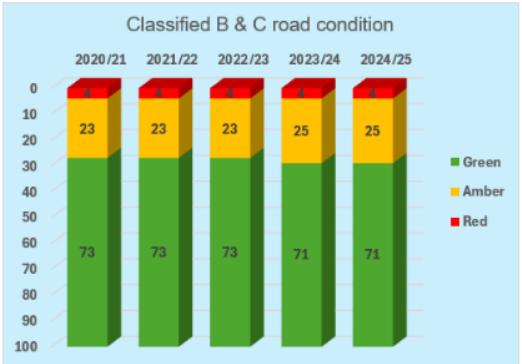
Performance Requirements

The required function of this asset is defined in the maintenance hierarchy. The long-term aspiration for the carriageway asset is that overall, it performs at least as well as the carriageways in the surrounding authority networks.

Asset Performance







Statistics:

	kms	miles	Percentage of network length
A road length	423	263	9.8%
B & C road length	1,547	961	35.7%
Unclasified road length	2,361	1467	54.5%
	4,332	2,692	100.0%

Gross Replacement Cost (2024/25)	Value in (£,000's)
A road value	759,220.1
B & C road value	1,698,486.8
Unclasified road value	2,383,365.9
	4,841,072.7

The chart above indicates the overall condition of the carriageway asset group.

Maintenance Strategy

The County Council has maintained carriageways to an acceptable standard overall. While the network is showing increased risk of deterioration, the County Council still has a network that is considered safe for users.
An appropriate maintenance treatment will be selected based on evidence, which provides the lowest whole-life costs. Preventative maintenance treatments are advocated where suitable.
The unclassified (minor) road network was likely to receive a patching and surface dressing treatment in previous years, which was applied as late as possible. However, this is no longer the case, as we now prioritise busier and higher risk sites. Many of these carriageways have insufficient construction to carry the loads to which they are subject to, so could be vulnerable to rapid failure.
Increased inspection will be considered where necessary, following a risk-based approach.
If there is an increase in available funding we will carry out more resurfacing, micro asphalt preservation and Surface Dressing.

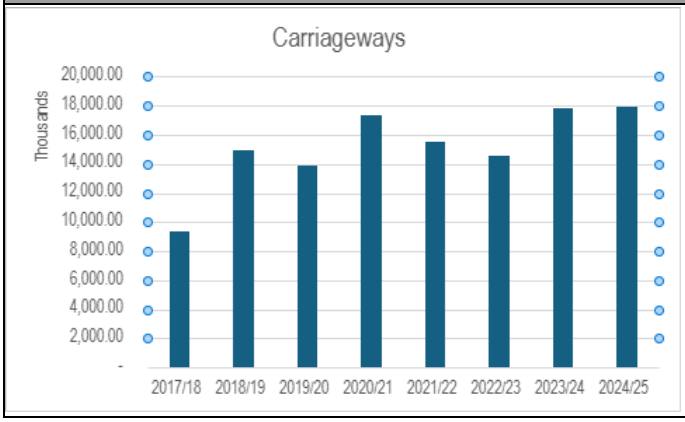
Revenue Investment

Revenue investments are made to ensure that the carriageway is kept in a safe condition and carry out works that preserve the function of the asset.
Most of revenue expenditure funds unplanned reactive works, which may be needed to restore a minimal level of function. Commonly these are potholes, but many other defects are also remedied.
Revenue investment is also used to restore non-structural parts of the asset, such as highway lining.

Revenue Maintenance Process

Carriageway defects are identified through routine safety inspections and stakeholder reports. Responses to defects are based on a risk-based approach. A permanent repair is advocated wherever possible.

Capital Investment



Historic Capital investment on carriageways

For Capital Investment - five strategic treatment types have been defined:

- Reactive restorative
- Planned restorative
- Preventative
- Improvement
- Renewal

Optimised treatment strategies, based on the strategic treatment types, will be applied to a defined set of carriageway types defined by hierarchy.
Each treatment strategy is designed to maximise the serviceable life of assets by intervening as late as possible to minimise whole-life costs.

Capital Maintenance Process

Funding for treatments is prioritised using a risk-based approach covering:

- current condition, as determined by network condition surveys and on-site inspections
- local engineering input
- road collision history
- stakeholder needs
- coordination opportunities
- engineering risks

Challenges

The number of carriageway scheme is growing, and schemes are getting more expensive due to being bigger, deeper construction and the increase in the cost of materials.

A lot of sites are being surface dressed, but this only deals with the surface and does not solve any structural problems underneath.

Forward Plan

Base Plan

Leicestershire County Council is committed to keeping our roads safe and functional, even as we face increasing pressures from wear and tear, to rising costs through inflation, and limited additional funding. The asset management plan seeks to prioritise critical sites and ensures that the council commits to using cost-effective treatments to extend the life of the county's road network. Leicestershire will deliver:

- Resurfacing schemes to restore road surfaces where structural issues are most severe.
- Surface dressing to seal roads and prevent water damage, helping to reduce potholes and improve grip.
- Routine patching and minor repairs to address defects and keep roads safe for all users.
- Improve sustainability by using Warm Mix Asphalt and recycled materials wherever possible.

Our highway teams continue to develop and use detailed inspections and condition data to identify the highest-risk locations. This means works can take place on roads which

appear in better condition than others—this is part of a strategy that aims to react to the most serious road defects which would have the greatest impact upon the network, accepting that the network condition will decline over time. By stretching available resources essential connectivity and safety will be maintained.

Ideal Plan

If the council had budget freedom Leicestershire would aim to accelerate the delivery of the 147-resurfacing scheme active list, which are currently valued at £23.2 million. Instead of spreading this over 20 years, an annual investment of £8 million would allow completion within just three years. The continued surface dressing maintenance allocation would be doubled to £6 million per year, improving coverage and preserving more of the network. Similarly, Micro Asphalt treatments would be expanded to £325,000 annually, and Asphalt Preservation would be introduced at £500,000 per year. These treatments would provide the basis of preventative surface maintenance on roads across Leicestershire.

This funding would also support structural repairs, reducing the need for deep, costly interventions that take longer and cost more to implement. Maintaining consistent programme size, helps to make treatments increasingly economically viable and preserves in-house delivery capabilities. Additionally, increased investment would allow for a greater use of innovative technologies, such as Warm Mix Asphalt and recycled materials, aligning with environmental goals.

Overall, a flexible budget would enable Leicestershire to stabilise network condition, reduce long-term costs, and improve road safety and serviceability across the county.

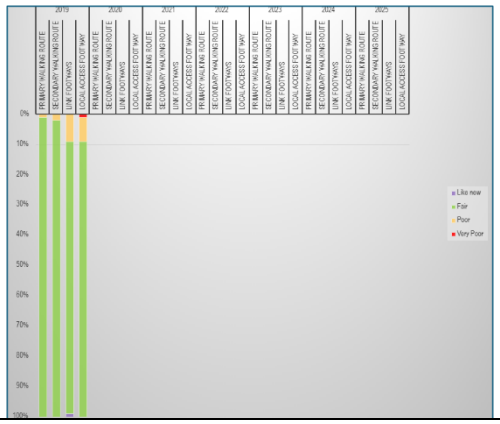
2. Footways - Asset Management Life Cycle Plan

Inventory	
Footway class	**Length (km)**
Primary Walking Routes	67 (42 miles)
Secondary Walking Routes	230 (143 miles)
Link Footways	759 (472 miles)
Local Access Footways	2,719 (1,690 miles)

Performance Requirements

The required function of this asset is defined in the maintenance hierarchy. The long-term aspiration for the footway asset is that it is maintained in a managed decline/steady state condition.

Asset Performance



No condition data for footways since 2019

The footway asset will require an extensive programme of renewal to maintain a managed decline in the overall condition. The forecast of condition above suggests that steady state cannot be achieved at currently planned levels of funding.

Maintenance Strategy

The County Council has not carried out planned maintenance on footways since 2019 (except emergency/safety repairs). The network is currently in an acceptable overall condition, but this is declining (although footways decline at a slower rate compared to carriageways). Where funds allow an appropriate maintenance treatment will be selected which provides the lowest whole-life costs. A programme (LTG funding) of footway resurfacing is being delivered in 2025/26 and potentially for future years. Footways with extremely low levels of use are designated as such and assigned maintenance standards comparable with our public rights of way network. Safety defects will be remedied according to agreed timescales.

Any new/increased in funds would allow a programme of Slurry Sealing to start again (without this the back log of work will continue to increase).

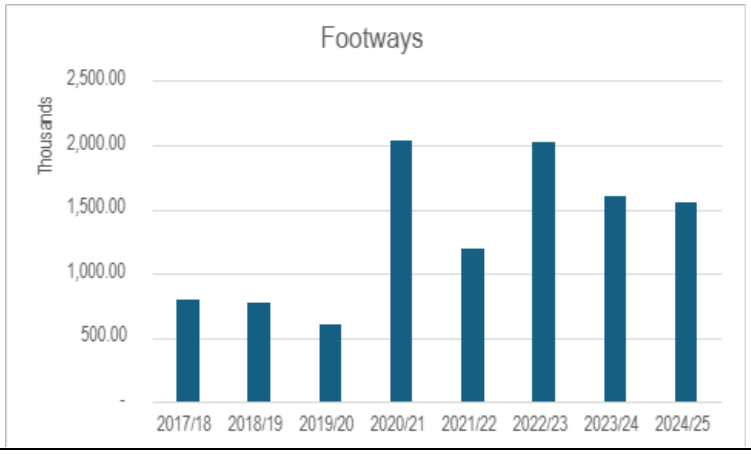
Revenue Investment

Revenue funding for footways is accounted for within the revenue funding for carriageways.
Routine interventions are made to operate the asset by ensuring that the footway is kept in a safe condition and carrying out works that preserve the function of the asset.
Most revenue expenditure funds are for unplanned reactive works which may be needed to restore a minimal level of function. Commonly these are potholes, but other types of defects are also remedied.

Revenue Maintenance Process

Footway defects will be identified through routine safety inspections and stakeholder reports. Responses to defects are based on a risk-based approach. A permanent repair is advocated where possible.

Capital Investment



Capital Investment - footways treatments can be grouped into two strategic treatment types which have been defined as:

- Reactive restorative
- Planned restorative

Capital Maintenance Process

Funding for treatments is prioritised using a Risk based approach covering:

- current condition as determined by network condition surveys and onsite inspections.
- local engineering input
- stakeholder needs
- coordination opportunities
- engineering risks

Challenges
As we haven't carried out any Slurry Sealing treatment since 2019 the footways are deteriorating; all be it at a slower rate to that of carriageways. The backlog of footway schemes is increasing.
Forward Plan
Base Plan
Option 1 Leicestershire's footway maintenance programme will continue operating on a reactive framework, the council will focus on identifying and repairing safety defects, ensuring that footways remain safe and accessible for pedestrians, particularly in areas of high footfall or vulnerability. Routine inspections and public reports will guide the prioritisation of repairs, using a risk-based approach to determine response times and treatment types. The Council maintains its commitment to addressing hazards such as trip risks, loose surfaces, and structural failures or defects. This approach ensures that footways remain passable and compatible with all safety obligations, even as the overall condition of the network gradually declines. In the absence of additional funding, the Council will continue to monitor the condition of footways and respond to emerging risks, but large-scale improvements or preventative maintenance will remain on hold. The emphasis will be on targeted interventions that deliver the greatest safety benefit within the available budget.
Ideal Plan
If given increased budget flexibility for managing the footways in Leicestershire, the council would strengthen its footway asset management through a risk-based, lifecycle approach focused on safety, value, and long-term performance. The council would continue delivering annual maintenance programmes, including both major and minor works, aligned with asset management principles. A slurry sealing programme would be developed to apply cost-effective treatments that seal surfaces and extend footway lifespan. Hazardous precast concrete slabs would be replaced, where appropriate with flexible bituminous surfaces on a priority basis, subject to planning and conservation constraints. The council would also explore innovative materials and treatments that offer long-term durability and better value. Footways would be managed by hierarchy—from Primary Walking Routes to Local Access Footways—with tailored inspection frequencies and service levels. Routine safety inspections and Surveys would inform condition assessments and prioritisation. Accurate asset inventory and condition data would be maintained to support lifecycle modelling, performance monitoring, and Whole Government Accounts reporting. This ensures transparency and optimised investment. Enhanced funding would allow LCC to improve footway safety, accessibility, and resilience while reducing long-term maintenance costs and supporting sustainable transport.

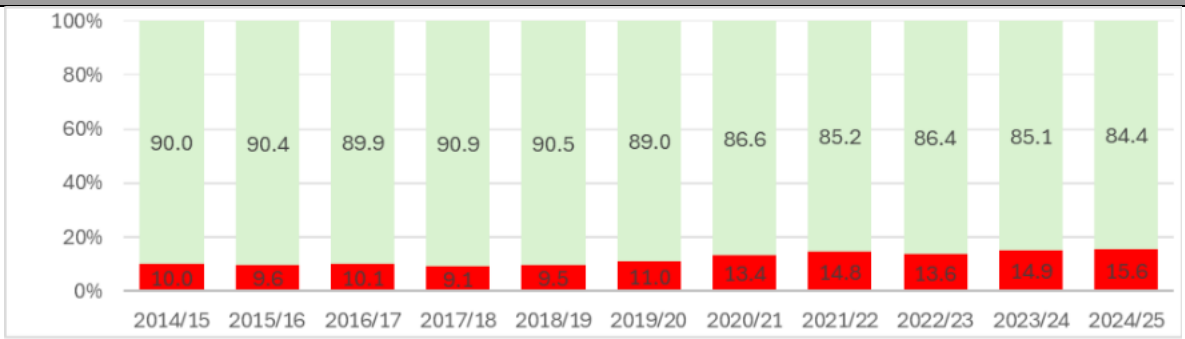
3. Structures - Asset Management Life Cycle Plan

Inventory	
Structure Type	**Number**
Bridges	586
Footbridges	56
Culverts	139
Subways	15
Retaining Walls	122
Gantries	9

Performance Requirements

Highway structures shall be managed and maintained to ensure structural safety and functional condition, so they remain fit for purpose and provide safe passage for the highway users of Leicestershire.

Asset Performance



The current key performance indicator (KPI) for the structure's assets has fallen outside the agreed levels of service.

The target for the KPI is to have a maximum of 10% of all bridge spans with a BCI_{CRIT} score below 75, with the intention of targeting those structures for remedial action. The underfunding over recent years has now materialised in the worsening KPI score, the actual KPI score for 2024/25 was 15.6%.

The chart above indicates the overall condition of the structures stock, where red indicates the percentage of assets in the 'at risk' category of a BCI_{CRIT} score below 75. The current KPI is worsening, which indicates that more structures are falling into the 'at risk' category. 'At risk' structures are a potential safety hazard for highway users.

The structures stock is in a state of managed deterioration. The condition is known to be deteriorating, and interventions applied as necessary, but this regime is only possible for a short period of time before the likelihood of a structural failure increases and the safety of highway users is put at risk.

The forecast level of investment on highway-related structures is only sufficient to implement a few small-scale maintenance schemes each year. Those 'at risk' structures that cannot be replaced or strengthened in a planned way must be managed by either applying lane restrictions, weight limits or road closures.

Maintenance Strategy

Structures assets concentrate the greatest amount of asset value into very discrete parts of the network, and any failure is likely to be disruptive and costly to address.
For this reason, structures are designed as long-term assets, and they require ongoing preventative maintenance to maximise their lifespan.
The target that no more than 10% of our bridge assets has a Bridge Condition Index (BCI) less than 75 is maintained. Bridge repairs will be targeted using a risk-based approach that will consider safety, immediate serviceability, long term viability of the structure, network resilience and commercial traffic volumes (initially based on network hierarchy). The volume of repairs will be dependent on the budget available.

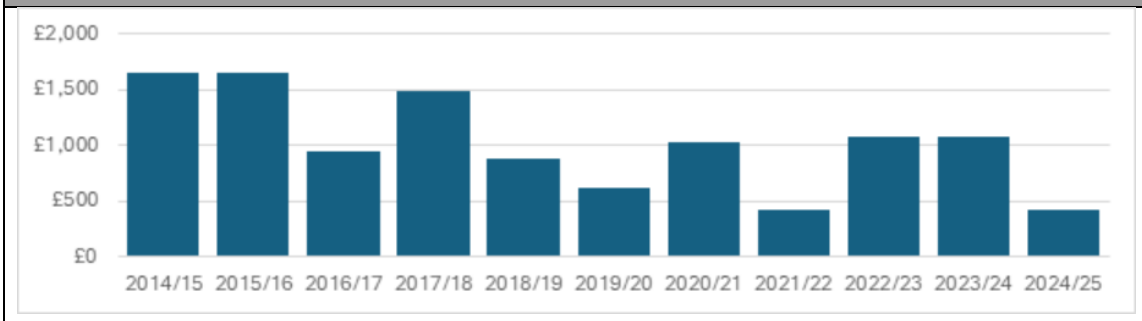
Revenue Investment

Routine interventions are made to preserve the function and appearance of the asset. Revenue funding may be used for unplanned reactive works but are also used to support cyclical maintenance activities such as silt removal, vegetation clearance and graffiti removal.

Routine Maintenance Process

Non-structural defects which need attention are usually identified through the inspection process; but they can also be identified through targeted safety inspections and stakeholder reports. Responses to defects are based on a risk-based approach.

Capital Investment



Bridges are major assets and require significant investment for renewal.

Funding has been secured for the replacement of Zouch Bridge on the A6006 at Hathern which is currently under construction and due to be completed in June 2026.

There is an ongoing issue with Cavendish Bridge (the largest bridge in the County) on the B5010 at Sawley, which is currently reduced to a single lane and managed by traffic lights. Further investigatory work will be required before this bridge reaches its end-of life.

Capital Maintenance Process

Defects are identified during the programmed cyclical inspection process. Funding is split between structural strengthening, preventative maintenance, and asset management activities (inspections and load carrying re-

assessments). Appropriate treatments are identified and prioritised using a risk-based approach.

The structural strengthening programme is prioritised according to each asset's Bridge Condition Indicator score for critical elements (BCIcrit). The BCIcrit scores reflect the condition of the main load carrying components of the structure.

The programme of preventative maintenance, including re-waterproofing, re-painting and non-structural brickwork repairs, is prioritised according to safety risks (defects which if left untreated will affect other elements of the structure) and financial risks (defects which if left untreated will have a significant cost impact in the future).

Challenges

The deterioration of the bridge stock leads to leads to increase investment requirements and ultimately failure of structures. As more structures are failing their assessments this leads to weight restrictions being imposed or significant strengthening investment being required and greater disruption to the highway user.

Forward Plan

Base Plan

The asset management plan for structures is centred on maintaining structural safety and serviceability through targeted, cost-effective actions. With a limited budget and a growing backlog of works exceeding £3 million, the council prioritises interventions that prevent further deterioration and minimise future costs.

The council's approach is to continue inspection and assessment programmes to monitor asset condition, additionally specialist monitoring is carried out for high-risk structures. Reviewing the conditions of highway assets informs a prioritised schedule of maintenance, that prioritises structures at risk of failure and determines what measures the council should implement such as requiring weight restrictions or enforcing speed restrictions where necessary. Inspections also inform the council's Bridge Condition Index (BCI) a tool that determines the health of a bridge.

Necessary maintenance will be utilised where required to extend asset life. Activities such as minor repairs, vegetation management, structural testing, paint coating and surface treatment refurbishments will be carried out where feasible, reducing the need for full-scale renovations.

While no new external practices are currently being adopted, the council remains open to low-cost innovations that align with its sustainability goals. This approach ensures that even considering financial constraints, Leicestershire's structures are managed responsibly, with safety and long-term viability as a core principle for managing structures.

Ideal Plan

If Leicestershire County Council had access to an increased budget, it would significantly enhance the management of its over 700 structural assets. The priority would be to eliminate the backlog of maintenance works, which is estimated at over £3 million. This would restore structural integrity across the network and reduce the risk of needing to enforce weight restrictions and slow asset failure.

With improved funding, the council could implement a comprehensive programme of general and preventative maintenance. This would include waterproofing, repainting, structural testing, and surface treatment—actions that extend asset life and reduce long-term costs. High-risk structures would benefit from more frequent specialist inspections and monitoring, ensuring early intervention and improved safety.

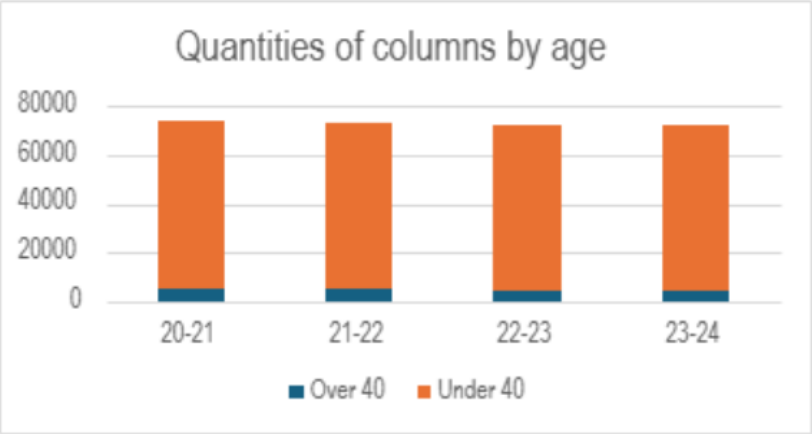
Overall, increased budget flexibility would allow Leicestershire to shift from reactive management to proactive stewardship—ensuring its structures are safe, resilient, and fit for future demands. This approach aligns with national best practices and supports long-term value for public infrastructure.

4. Street Lighting - Asset Management Life Cycle Plan

Inventory

Type / Height	Up to 6m	8m	10m	12m	High Mast
Painted Steel	11,613	4355	3646	897	-
Galvanised Steel	34,775	8252	4186	1256	-
Concrete	53	1	-	-	-
Other	1721	37	89	57	14

Columns By Age (Typical age of column – 40 Years old)



Financial year	Over 40 years old	Under 40 years old	% over 40	% under 40
2020/21	5,490	68,353	8.03	91.97
2021/22	4,936	68,039	7.25	92.75
2022/23	4,592	67,955	6.76	93.24
2023/24	4,374	68,275	6.41	93.59

Performance Requirements

The function of this asset is to light designated parts of the highway network that need illuminating.

Asset Performance

The street lighting asset will continue to require an extensive programme of renewal if we are to maintain a steady state in the overall condition.

The forecast of condition suggests a slight deterioration in the street lighting stock and so an increase in the average age of the stock is expected at currently planned levels of funding i.e. a managed decline.
Streetlight numbers increased by 0.74% between April 2020 and April 2024. Further annual increases are expected as new developments are adopted (there are 6,278 developer street lights waiting to be adopted).

Maintenance Strategy

The County Council maintains an extensive stock of street lighting in a reasonable overall condition.
The maintenance strategy of this asset is largely defined by the choice made when the asset is renewed. Renewal options will be selected that provide the lowest whole-life costs including operating as well as capital costs. At the point of renewal or other appropriate time, the value of each asset can be considered and, where appropriate, the asset shall be removed, leading to an overall rationalisation of the stock. In addition, a testing regime has been adopted that seeks to extend the useful life of assets without increasing risk.
Safety defects will be remedied according to agreed timescales.

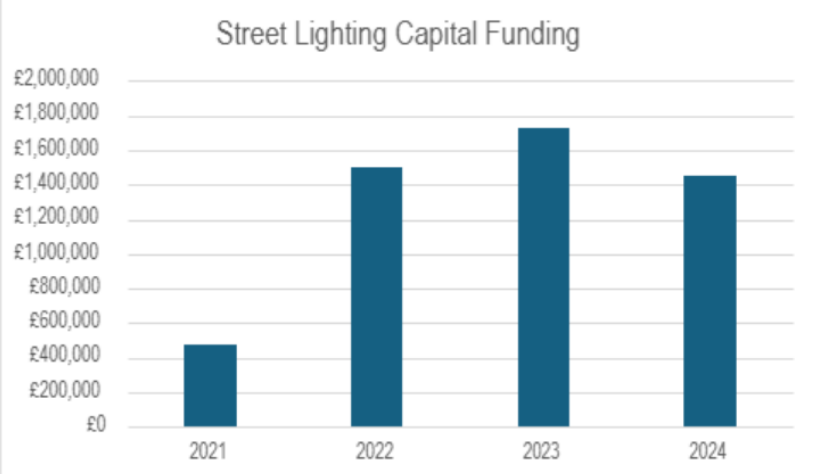
Revenue Investment

Most of the revenue expenditure is used to fund energy. Other works include cyclical testing and reactive work which may be needed to restore its function.

Revenue Maintenance Process

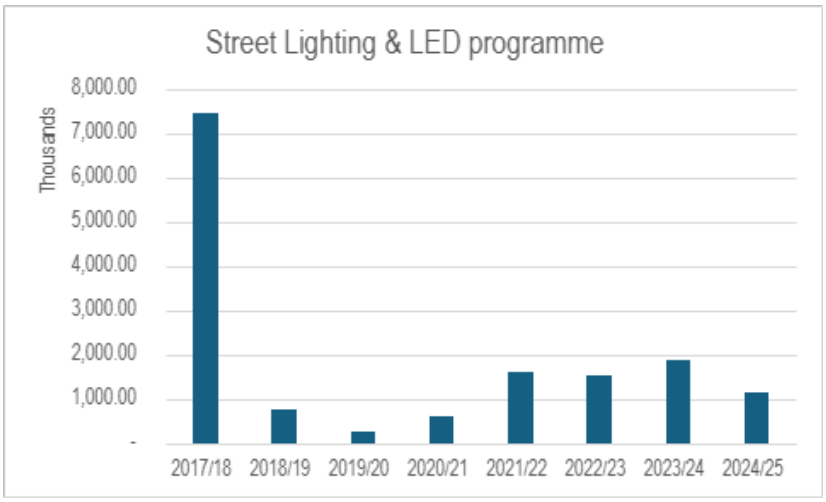
Reactive work is identified through routine safety inspections and stakeholder reports.

Capital Investment



Capital Allocation

2021 - £479,000
2022 - £1,500,000
2023 - £1,730,360
2024 - £1,455,572



The County Council has completed a major upgrade programme to it street lighting assets, but several known risks remain in the stock.
Future investment will be targeting at removing lighting which is a risk. We are undertaking structural testing of our streetlights and replacing those that show a deterioration in their condition.
A programme of testing will be in place which shall determine those columns at risk. A risk-based approach will be taken to scheduling this testing based on the age and type of the asset as well as analysis of failures by age and column type.
The level of funding in future years will need to be reviewed in line with the merging knowledge of risk.

Capital Maintenance Process

Funding for treatments will be prioritised according to the risk of structural failure.
Where the outcome of testing reveals an urgent or imminent risk of failure, then a reactive response must be made, such as removal or temporarily capping unsafe assets.

Challenges

- Rising cost of energy/materials/electrical connections
- Traffic collisions resulting in damage to the assets
- Reducing budgets
- Increase in asset inventory due to new developer adoptions
- Aging assets
- Lack of Council cable network
- Increased illuminated signs outages

Forward Plan
Base Plan
Leicestershire County Council (LCC) will continue to manage its 69,893 street lighting assets through a risk-based, cost-effective approach, that is focused on maintaining safety and serviceability. Without additional funding, LCC will prioritise reactive maintenance, addressing faults identified through safety inspections and stakeholder reports. Structural testing will be used to identify columns at risk of failure, with urgent interventions such as removal or capping undertaken where necessary. Preventative maintenance will be limited, and renewal decisions will be based on whole-life cost analysis. Where feasible, assets may be updated—removing low-value or redundant lighting to reduce future liabilities. Energy costs, form the bulk of revenue expenditure, to mitigate rising energy and material costs, LCC will expand dimming initiatives—such as reducing light intensity to 30% after 8pm. Whilst accelerating the replacement of outdated lanterns with energy-efficient LEDs would increase cost efficiency, further conversions may be delayed due to budget constraints. Developer-owned lighting awaiting adoption will be carefully assessed to avoid increasing maintenance burdens and the council will be active in ensuring the removal of obsolete or low-value assets where legally permissible. The Council will also explore partnerships with communities and Parish Councils to share responsibilities for minor works. Overall, LCC will maintain a managed decline in asset condition, focusing resources on high-risk areas and using data-driven decision-making to optimise outcomes within financial limitations
Ideal Plan
With increased budget flexibility, Leicestershire County Council would begin with accelerating renewal programmes and adopting smarter technologies. A key priority would be expanding the column replacement programme, targeting life-expired assets—particularly those over 40 years old furthermore columns over 8m height or under 6m will be reviewed so as to reduce structural risk and improve safety. The Council would also implement a comprehensive LED upgrade for all lantern type street lighting, including heritage and developer-installed units, integrating Central Management Systems (CMS) for remote monitoring and fault reporting. Investment would support comprehensive site surveys updating the asset inventory, ensuring data accuracy. Additionally, the Council would fund a systematic electrical testing and cable tracing programme, producing schematic diagrams for its private cable network to improve maintenance efficiency and reduce outages.

Efficiencies would be advanced through energy-efficient technologies and dimming strategies, while economic resilience would be strengthened by mitigating rising energy and material costs. Enhanced lifecycle planning and data-driven decision-making would ensure long-term sustainability and value for money. Ultimately, increased funding would allow the Council to shift from a reactive to a preventative maintenance model, improving service levels, and reducing risks.

5. Drainage - Asset Management Life Cycle Plan

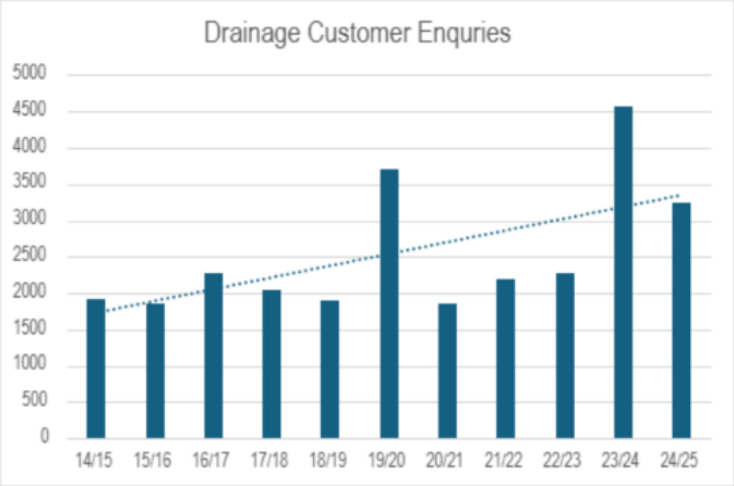
Inventory

Asset Name	Number Recorded	Estimate of Total Recorded Asset %
Gullies Total (number)	**134496** (44682 P1 61925 P2 27889 P3)	98%
Inspection Chambers (number)	924	25%
Highway main (metres)	77227m	20%
Combined kerb drainage (metres)	15818m	90%
Lateral Connection (number) Combined length (metres)	1643 10163	10%
Ponds (number) (total area m2)	13 421026	60%
Pumps (number)	5	100%
Culverts (number)	978	85%
Flow Controls (number)	24	30%
Grated Channel (number) Combined length (metres)	6 1733	10%
Highway Ditch (number) Combined length (metres)	20 2529	10%
Surface Water Channel (number) Combined length (metres)	17 7620	40%
Drainage Grips (number)	43973	90%

Performance Requirements

This asset removes water from the highway so that it does not affect the highway user or the structure of the asset.
Highway drainage systems are installed to capture surface water run-off, reducing flooding and protecting the fabric of the road.

Asset Performance



Maintenance Strategy

Drainage systems do not deteriorate in the same predictable way as carriageways. They normally fail due to one or a combination of the following reasons.

- Pipework damaged by utility operators or by the effects of traffic
- Pipes blocked by trees
- Pipes and gullies blocked by detritus and foreign objects.
- Pipework damaged by earth movements such as embankment slips
- Ironwork (gullies & manhole covers) breaking, rocking or coming loose from their bedding due to effect of heavy traffic.

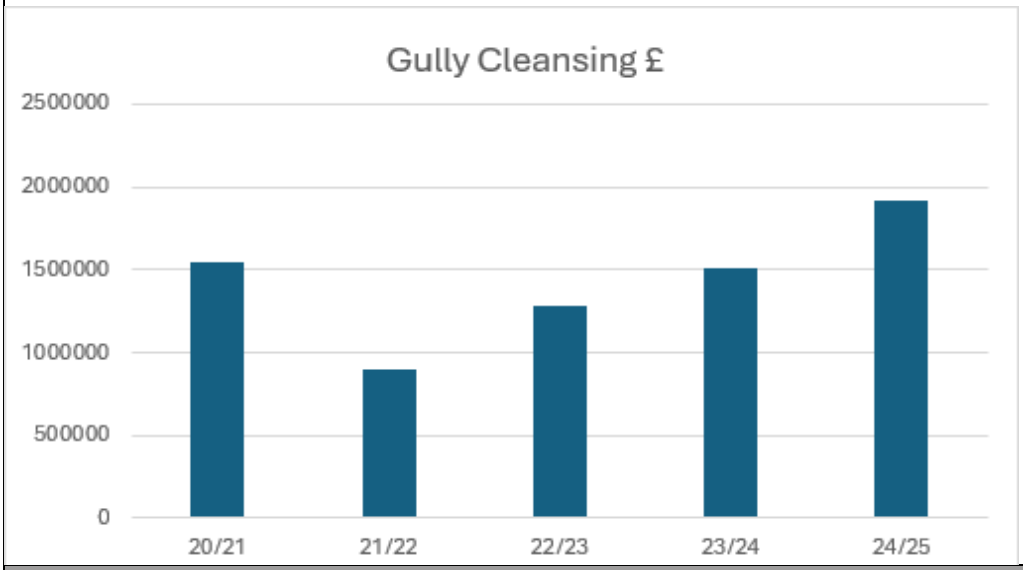
No planned maintenance is carried out to open and piped drainage and so such works are usually carried out by reports of flooding or accidents due to flooding, or the structure of the road is threatened due to blocked drains or lack of drains.

When a gully is emptied and the water does not drain away or drains away slowly suggesting a blockage further along in the system, a subsequent job is raised to investigate the remedial works required.

Depending on the nature of the issue found, the perceived level of risk to the network and its users, the timescales for remedial action can vary significantly from several days to significantly longer. This position, including the timeframes for satisfactory resolution, will be developed further in line with a Risk Based Approach.

It should be noted however that, as with highway drainage issues, the amount of time to rectify an issue will depend on complexity, interdependency with other agencies, current priorities and available budget.

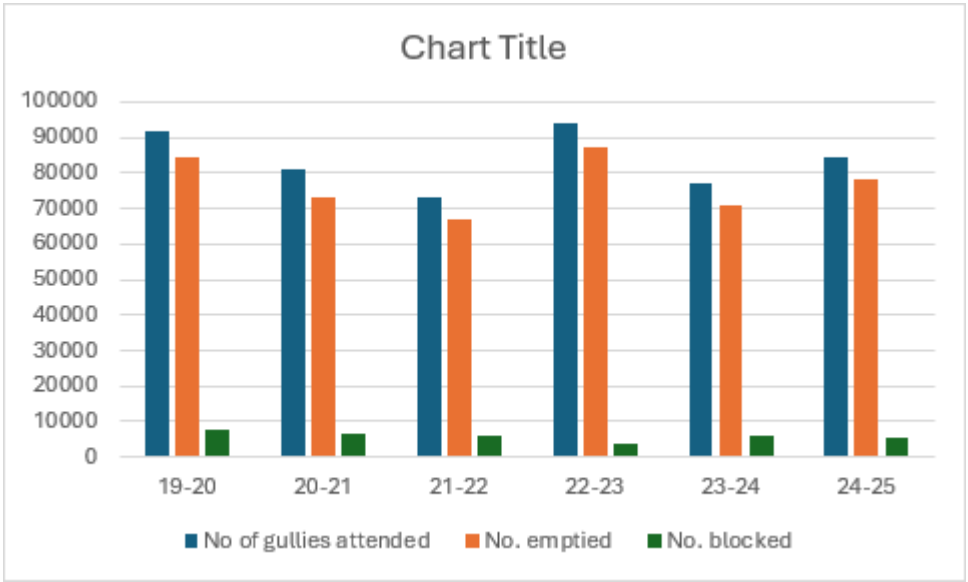
Revenue Investment



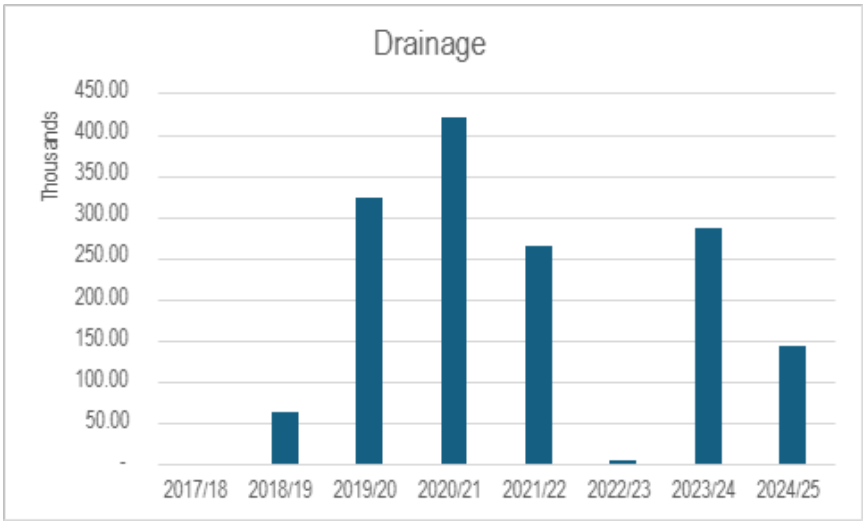
Revenue Maintenance Process

Routine gully cleansing is undertaken to remove the build-up of detritus that occurs in gully sumps and other drainage channels.

The frequency of cleaning highway drainage systems depends on their location and data collected regarding silt levels. Depending on these factors, there may be a need to vary the cleaning frequency. It is carried out on a Risk Based Approach.



Capital Investment



Capital Maintenance Process

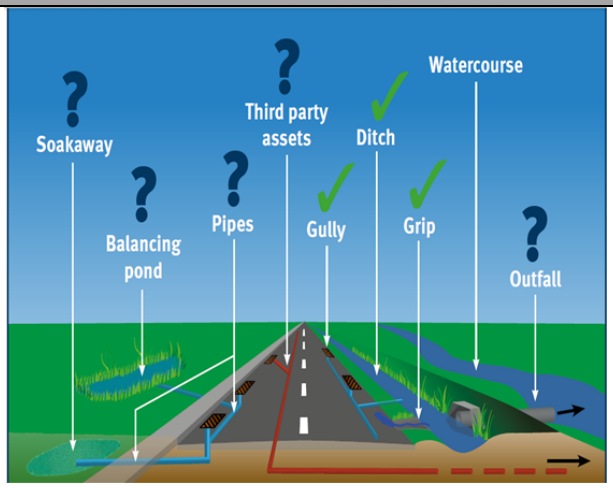
Structural investment in the drainage asset is targeted at reducing risks and increasing resilience in the network.
Delivery of highway drainage capital schemes is based on the priorities defined by the national guidance in the Highway Maintenance Efficiency Programme:

- Network hierarchy
- Highway safety
- The number of incidents of flooding
- The structural effect of flooding
- Traffic speed.

Highway drainage elements fall into 5 main categories:

1. Gullies/grips/ditches, which may be obstructed by the growth of vegetation or damaged by traffic. In most cases the responsibility for maintenance of ditches will rest with the adjoining landowner.
2. Culverts under roads which may be affected by blockage, subsidence or structural damage.
3. Other piped drainage which may be affected by blockage or subsidence.
4. Sustainable Urban Drainage Systems (SUDS), which may require special maintenance attention for maximum effectiveness.
5. Surface boxes and ironwork for both drainage and non-drainage applications, which may be affected by subsidence or obstructed access.

Challenges



Better data for underground drainage assets and condition of drainage assets is needed, as knowledge of the state of that system is often limited, resulting in reacting to issues as they arise, rather than proactively managing the drainage network. Other challenges include:

- Increase in extreme weather, putting a greater strain on the drainage assets
- Do not currently have a programme of culvert inspections
- Need a maintenance / policy procedure for Balancing Ponds

Forward Plan

Base

Leicestershire County Council manages a critical part of the highway drainage network. The current asset management approach follows a risk-based methodology, focusing on safety, resilience, and legal compliance under the Highways Act. With the current annual revenue budget and minimal capital investment, the strategy prioritises reactive maintenance based on silt levels and risk categories. Gullies are cleansed cyclically, but deeper system issues are addressed only when reported. Drainage failures typically result from blockages, structural damage, or ironwork deterioration.

A risk-based framework is being developed to guide prioritisation, but response times vary based on perceived risk and available resources. The council uses a number of systems to manage drainage data. However, asset data is incomplete, with only gullies well recorded; other components like highway mains and inspection chambers have low coverage. The council is improving asset data where feasible, all completed works are recorded and a more structured risk-based approach to maintenance is continually being developed.

Challenges include increasing extreme weather events, particularly flooding, a lack of culvert inspections, no formal procedures for balancing ponds, asset failure, limited data, and a growing backlog of unresolved drainage issues. This approach acknowledges a shift from a "steady state" to a "managed decline" in asset condition, with a focus on maintaining essential services and mitigating risk within existing financial constraints

Ideal

If Leicestershire County Council were to receive increased budget flexibility for managing highway drainage, several key improvements would be implemented to enhance the performance, resilience, and sustainability of the council's drainage asset network. A primary focus would be on establishing a formal inspection regime for the county's 1,000+ drainage culverts under 1.5m span, which currently lack routine monitoring. This would include a programme of cyclic inspections, supported by subsurface CCTV surveys to assess the condition of underground assets—particularly older infrastructure. These measures would help reduce long-term costs, also, improving network reliability.

Furthermore, additional funding would enable the introduction of planned manhole cleansing and a dedicated culvert maintenance programme. These activities, currently limited by budget constraints, would significantly reduce the risk of flooding and structural failures. The drainage asset inventory would be expanded and improved, capturing more comprehensive data on ditches, soakaways, balancing ponds, and pumping stations. This would include quality indicators to guide future investment and maintenance decisions. Sustainability efforts, like expanding gully waste recycling at Depots across Leicestershire, could also be scaled up to ensure environmental efficiency.

6. Highway Verges - Asset Management Life Cycle Plan

Inventory

Asset Name	Amount Recorded
Urban Verge	4,158,322 m2
Urban Verge cut by Parish Councils	711,255 m2
Rural Verge	4043 km

Performance Requirements

Definition of the level of service is affected by a range of factors including:

- Public acceptability
- The economics of undertaking work.
- Perception of road traffic collision risk.
- The longer-term implications of not undertaking scheduled work.

Asset Performance

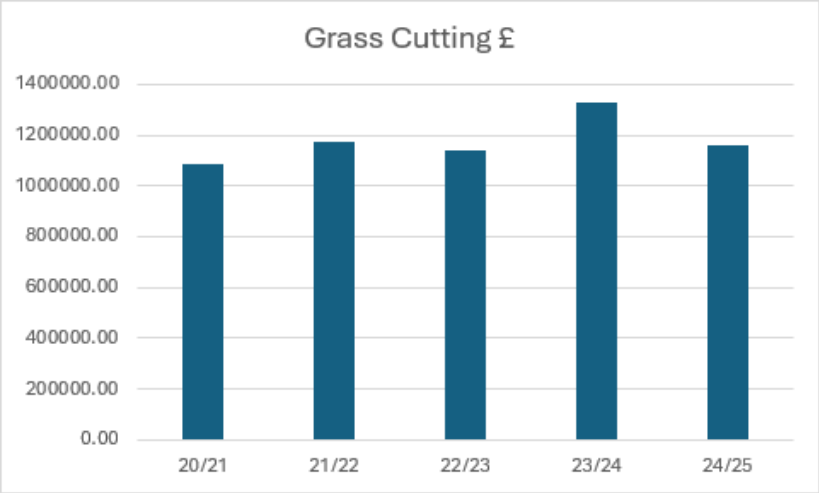
A key objective is to provide a safe space for pedestrians, equestrians, and cyclists when there is no footway, and provides an amenity value. Verges can act as highways for wildlife, connecting larger habitats and improving the overall health of the local ecosystem. Rural verges support the road structure and provide drainage. Verges are used to locate highway related infrastructure such as traffic signs and street lighting and can house Statutory Undertakers assets both above and below ground.

Maintenance Strategy

Much of the maintenance carried out on highway verges is work carried out on a cyclic basis to defined standards. This includes items such as grass cutting and general verge maintenance.
This work is carried out primarily for safety reasons. The various routine operations required in maintaining the highway verge, central reserves, cutting and embankment slopes in a safe condition include inspecting, removing obstructions and cutting grass and vegetation to maintain visibility. Preservation and enhancement of the environment must be considered sympathetically but with the safety of the highway user as a prime consideration. The appearance of the highway should be as natural as possible, and its maintenance should encourage preservation of flora and fauna.

The County Council will seek to reduce our commitments in these areas by involving communities and particularly Parish Councils more directly in the upkeep of their local highways. This approach will only be progressed when it can be demonstrated to be least cost-neutral to the authority.

Revenue Investment



Revenue Maintenance Process

Highway verges suffer damage from vehicles in many situations. The main causes are:

- Inappropriate parking, even when suitable parking facilities are available.
- Lack of parking facilities.
- Over-running due to road layout.
- Over-running due to road width.

It is increasingly difficult within the limitations of the highway maintenance budget to give priority to highway verges that are damaged. Therefore, these will no longer be repaired except in specific circumstances.

Challenges

There is the potential for conflict of interests between grass cutting and conservation issues, with wild plants being mown before they have flowered and seeded. Although some low growing species thrive in the cut areas, elsewhere they would be smothered by more dominant varieties.

In all activities likely to affect flora and fauna, or in conservation areas where the materials and details used and their contribution to their character and appearance of the area are important, the techniques, programme and materials used will avoid causing damage and disturbance, where possible.

Forward Plan
Base
Leicestershire County Council will manage its highway verges, trees, and hedges using a risk-based, data-informed, and whole-life asset management approach, aligned with statutory duties and best practice. These soft estate assets, covering approximately 4,341 hectares, are maintained for safety, visibility, and environmental value. Maintenance activities such as grass cutting, vegetation control, and inspections are delivered cyclically, with priority given based on network hierarchy ensuring safety and accessibility. Highway verges will be maintained to preserve visibility and safety through cyclical grass cutting and vegetation control. Hedges will be managed to prevent encroachment and maintain highway usability, balancing safety with biodiversity goals. Preventative maintenance will be completed where feasible, with restorative works undertaken as needed to mitigate risk and preserve asset value. Community involvement, particularly through Parish Councils, will be encouraged to support local upkeep as well as to monitor asset condition through inspections and stakeholder feedback. Opportunities for external funding and community partnerships will be explored to enhance biodiversity and resilience. In the absence of additional funding, the Council will focus on efficiency savings, rationalisation of low-value assets, and integration of environmental considerations into maintenance decisions. This approach ensures that highway verges, trees, and hedges remain safe, serviceable, and contribute positively to Leicestershire's transport network and landscape.
Ideal
With enhanced budgetary freedom, Leicestershire County Council would significantly boost the management of highway verges, trees, and hedges. A more robust inspection regime would be introduced, enabling earlier identification and resolution of safety and environmental risks. Enhanced funding would enable expansion of the tree planting programme, including retrofitting urban trees and diversifying species to improve extreme weather resilience and biodiversity, also, using maintenance methods reducing the risk of limb failure. Dedicated officers would be appointed to lead the planting programmes, direct community engagement, ensuring long-term stewardship and better response to public enquiries. Furthermore, Inspection cycles could be shortened, improving early detection of risks such as ash dieback and root damage; grass cutting frequencies could be increased to improve visibility and amenity, while also allowing for tailored conservation cuts to support pollinators and wildflower habitats. Hedge trimming would be better timed to balance safety, aesthetics, preventing encroachment and improving visibility and restorative treatments, such as verge reconstruction. These treatments increase resilience and ecological value. Investment in digital asset management systems would improve data accuracy and enable predictive maintenance planning.

7. Traffic Signals - Asset Management Life Cycle Plan

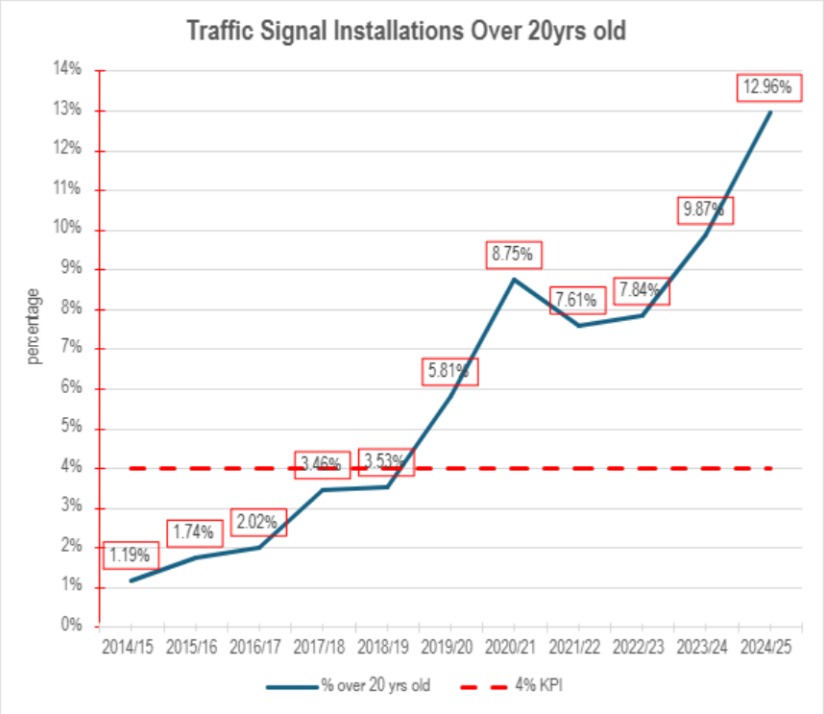
Inventory

Traffic Signal Type	Number
Junction	258
Zebra Crossing	102
Pelican Crossing	86
Puffin Crossing	21
Toucan Crossing	70
School Flashing Units	581
Vehicle Activated Signs	432

Performance Requirements

The required function of traffic signals is to control traffic on the highway network to protect the safety of highway users and ensure the expeditious movement of traffic.

Asset Performance



The chart above shows the overall condition of the asset, indicated by age, including forecasts of condition based on life cycle modelling.
The traffic signal asset will continue to require an extensive programme of renewal to maintain a managed decline in the overall condition.
The forecast of condition above suggests a continued increase in the percentage of the asset greater than 20 years old at current planned levels of funding.

Maintenance Strategy

The County Council has many traffic signal installations in a reasonable overall condition. The aspiration is that no more than 4% of the asset should be more than 20 years old. Currently our assets are in the region of 12% being over 20 years old.
The maintenance strategy of this type of asset is largely defined by the choice made when the asset is renewed. Renewal options will be selected that provide the lowest whole-life costs, including operating as well as capital costs.
There is an increasing issue with obsolescence, where replacement of hardware becomes difficult to source components, and support is withdrawn from suppliers. Subsequently interventions may be required before sites are due for renewal.
Safety defects will be remedied according to agreed timescales to successfully defend against claims.

Revenue Investment

There are three main types of revenue costs:

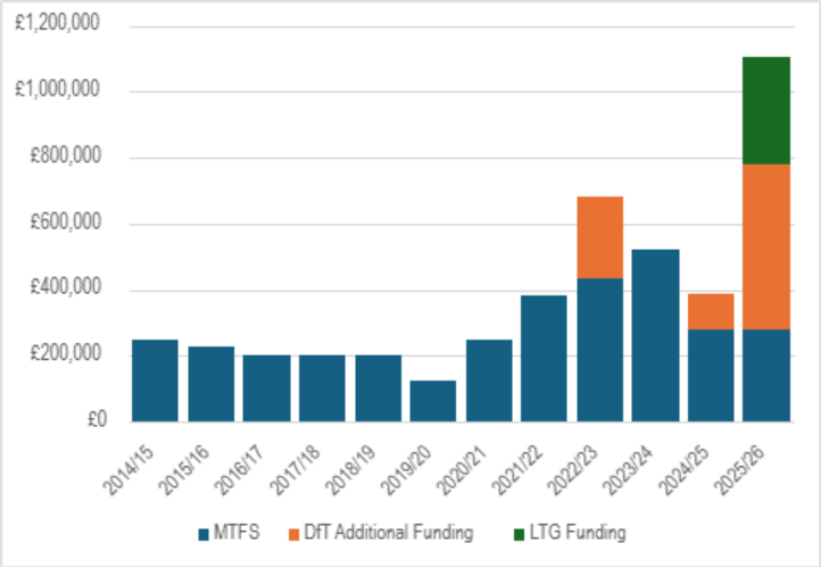
- Energy costs
- Other operating costs
- Reactive work

Upon renewal, we select types of traffic signal installation which meet the operational requirements and minimise whole life costs, including energy costs.
Wherever possible, control of the signal sites is being upgraded to a modern data communication system. This programme will generate annual savings.
The revenue strategy is supported by the capital investment strategy, which is based on minimising revenue maintenance costs, including reactive work.

Revenue Maintenance Process

The routine maintenance of traffic signals includes annual replacement of tungsten halogen lamps and cleaning of signal aspects, as well as reactive i.e. responding to faults in the operation of the asset and damage caused by road traffic accidents.

Capital Investment



The capital investment strategy is based on minimising the risk of maintenance costs by assessing age, type, and fault history.
The age of the installation determines the priority for renewal in most cases.
Experience of the performance of certain types of controllers has been used to define a risk of future faults.
The fault history supports the overall case for replacement. Where a history of faults is significant or severe, this assessment can define the case for renewal on fault history alone.

Capital Maintenance Process

The financial risk at each traffic signal site is assessed according to the following framework:

- Age
- Type of controller
- Total number of faults
- Total number of controlled faults

The risk is assessed regularly, and a three-year programme of renewals is in place.

Challenges

- Increasing number of traffic signals over 20 years old
- Lack of sufficient funds
- Technology and innovation, for example changes in specifications because of autonomous vehicles (self-driving vehicles)
- Hardware can become obsolete quite quickly (less than 20 years and often before the renewal date)
- LED conversion (70% saving over time but payback could take 10 years)
- Increasing backlog of work.

Forward Plan
Base
Leicestershire County Council (LCC) will continue to manage its traffic signal assets through a risk-based, cost-effective approach, prioritising safety, reliability, and operational performance. With limited funding, LCC will focus on reactive maintenance, addressing faults identified through inspections, stakeholder reports, and system alerts. Obsolescence will be managed through targeted interventions, particularly where equipment failure poses a risk to network resilience or public safety, aiming to keep the proportion of traffic signals over 20 years old to below 8%. A key priority will be the conversion of halogen-lamp signals to LED units, addressing rising energy costs, maintenance challenges, and part scarcity. This programme will extend beyond the Resilient Network (RN), recognising that Non-Resilient Network (NRN) sites also carry significant local traffic and contribute to overall network efficiency. Structural and electrical components will be replaced based on whole-life cost analysis and risk, with urgent upgrades prioritised where failure likelihood is high. The Council will maintain a managed decline in asset condition, focusing resources on high-risk installations and using data-driven decision-making to optimise outcomes. Developer-installed signals awaiting adoption will be carefully assessed to avoid increasing future liabilities. LCC will also explore opportunities to collaborate with communities and Parish Councils on minor works and maintenance support.
Ideal
With increased budget flexibility, LCC would accelerate renewal programmes and adopt smarter technologies to improve reliability, safety, and long-term value. A key strategic goal would be to reduce the proportion of traffic signals over 20 years old to below 4%, with a particular focus on the Resilient Network (RN), where 33% of assets currently exceed 15 years of age. The Council would implement a comprehensive LED upgrade across all signal installations, including heritage and developer-installed units, integrating Urban Traffic Management and Control (UTMC) systems for remote monitoring, diagnostics, and fault reporting. The assets would be broken down into component type and replaced using a risk-based methodology to assess the lifespan and safety critical nature of the components. A reduced design lifespan for assets on the resilient network would be adopted, ensuring timely replacement of controllers, signal heads, and communications equipment to mitigate failure risk and maintain operational resilience.

Investment would support detailed site surveys and inventory updates, improve data accuracy and enable more effective lifecycle planning. A systematic electrical testing and cable tracing programme would be introduced to enhance maintenance efficiency and reduce service interruptions.

Energy-efficient technologies and dimming strategies would be expanded to mitigate rising energy and material costs. Ultimately, increased funding would allow LCC to shift from reactive to preventative maintenance, improving service levels, reducing risks, and ensuring the long-term sustainability of the county's traffic signal infrastructure.

8. Road Signs and Markings - Asset Management Life Cycle Plan

Inventory

There is no complete inventory data held on the Highway Management System for Traffic Signs or Road Markings. Both assets are recorded by Vaisala when highway inspections are undertaken.

Performance Requirements

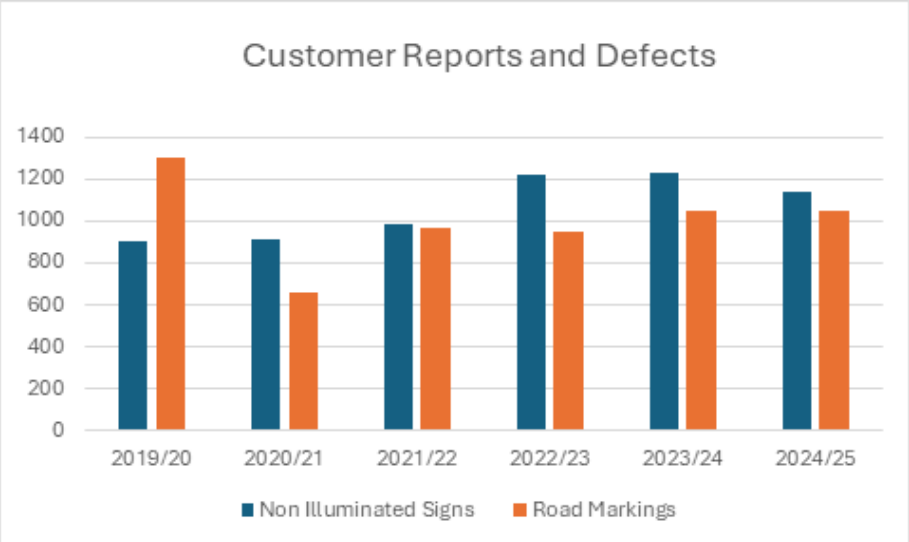
Mandatory, regulatory, and warning signs contribute to road safety, by assisting highway users to identify safety risks and separating potential traffic conflicts. Clear direction signing can contribute to safety by reducing driver confusion and keeping traffic to appropriate routes.

Mandatory, regulatory, and warning road markings and studs contribute to road safety by assisting highway users to identify safety risks and separating potential traffic conflicts.

Visible road markings and studs can contribute to safety by reducing driver confusion and keeping traffic to appropriate routes. They also assist in delineation, especially in the dark and when there is poor visibility. Road markings also help to manage the enforcement of safe designated parking/loading areas.

Asset Performance

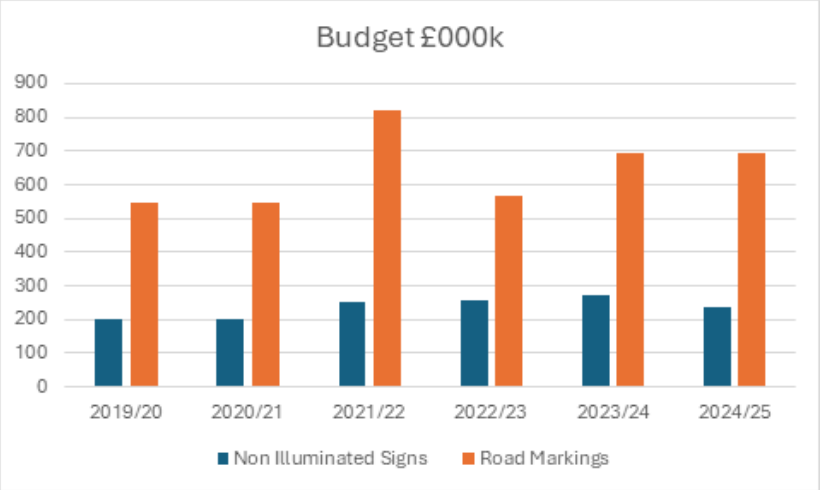
As there is no recorded asset condition the number of customer reports and recorded defects can be used as a reflection of condition.



Maintenance Strategy

Safety inspections identify defects likely to create danger or serious inconvenience to users of the network or the wider community. Such defects include those that will require urgent attention, as well as those where the locations are such that longer periods of response would be acceptable.
A schedule of routine sign cleansing is being developed.
A programme of annual retro-reflectivity testing for road markings is being developed.

Revenue Investment



Revenue Maintenance Process

Customer reported defects are investigated, categorised and actioned as necessary.

Sign cleaning is carried out on a reactive basis and at known problem locations.

Capital Investment

Maintenance is revenue funded

Capital Maintenance Process

Maintenance is revenue funded

Challenges

- The reduction of the surface dressing programme over the last 10 years has impacted on the condition of road markings, which would have been replaced as part of the dressing programme. Around 10% of the network was dressed historically, so resulting in the same % of annual road marking and road stud renewal. Current estimate is 2% of the network is dressed.

- Use of AI – AI is currently used to look at defects that have been reported and for an indication of road marking condition. However, a lot of work goes into recording road markings prior to surface dressing to ensure that they are put back correctly, an AI method of recording would save a lot of time.
- Decluttering of traffic signs.

Forward Plan

Base

Leicestershire County Council is taking steps to improve the way it looks after road signs and markings across the county. Generally, maintenance is done reactively – meaning issues are only fixed when they become a problem. This can lead to safety concerns, hazardous defects, emergency repairs, and budget overspends due to higher costs. To address this the following proactive renewals will be taking place:

- Annual retro-reflectivity surveys for road markings.
- A dedicated road stud maintenance programme.
- A renewal programme for non-illuminated signs, incorporating sign decluttering.

The Council acknowledges that there is not a 100% accurate inventory for signs and markings, rather the council on occasion relies on inspection data and customer reports to assess asset condition; reports are categorised and addressed based on urgency and location-specific risk.

This forward plan aims to enhance road safety, reduce long-term costs, and improve service delivery through data-driven, risk-based decision-making. By enhancing data quality, integrating asset condition into lifecycle planning, and prioritising cost-effective treatments, the council aims to shift from reactive to preventative maintenance, ensuring long-term sustainability and value for money. Decluttering of redundant signs and exploring AI-based condition recording are also part of future initiatives. This approach supports wider goals of safety, accessibility, and efficiency creating innovations, aligning with national guidance and Leicestershire's strategic transport and infrastructure objectives.

Ideal

A key priority for the council would be shifting from reactive to planned maintenance. This would include annual retro-reflectivity surveys to monitor the visibility of road markings and signs, ensuring they remain clear and effective, especially at night or in poor weather. A dedicated road maintenance programme would also be introduced to improve lane visibility; this is required due to a reduction in road dressing which is historically when road markings and studs would be renewed.

Routine maintenance would be strengthened, with more frequent inspections and faster response times to faults. A structured sign washing programme would be rolled out to keep signs clean and legible, while a comprehensive sign decluttering initiative would remove outdated or unnecessary signage, improving clarity for road users. Additionally, investment in data systems would improve asset tracking and the development of a digital inventory, enabling better tracking of asset condition and more efficient planning predictive maintenance. Overall, increased budget flexibility would allow Leicestershire to transition from reactive repairs to strategic upgrades, improving safety, increasing network resilience and advancing service reliability.

9. Vehicle Restraint Systems (VRS) - Asset Management Life Cycle Plan

Inventory

VRS Type	Km Length
SF:Double Height Flexbeam	62
SF:Double Rail Open Box Beam	444
SF:Double Sided Open Box Beam	1,128
SF:Double Sided Tensioned CB	21,483
SF:Flexbeam	2,051
SF:Open Boxed Beam	36,778
SF:Single Sided Flexbeam	1,102
SF:Single Sided Tensioned CB	34,293
SF:Temp Vertical Conc Barrier	12
SF:Untensioned Corrugated Beam	2,053
SF:Vertical Concrete Barrier	1,488
SF:Vetex	1,580
Total	**102,473 km**

Performance Requirements

Preventing Accidents: In the event of a collision or vehicle leaving the road, VRS help to contain and redirect the vehicle safely, reducing the severity of the impact.
Protecting Vulnerable Areas: They safeguard pedestrians, cyclists, buildings, and infrastructure near the roads from being struck by out-of-control vehicles.
Improving Road Safety: They maintain traffic flow and minimise secondary accidents by preventing vehicles from crossing into oncoming traffic or falling off bridges and embankments.
Compliance and Legal requirements: Many regions mandate VRS installations to meet safety regulations and standards like EN 1317 and CD 377

Asset Performance

A significant programme of renewal is required to ensure the long-term performance and safety of the Vehicle Restraint System (VRS) asset base. Current condition forecasts indicate that, without increased investment, it will not be possible to maintain a steady-state condition. Continued underfunding will result in a managed decline, increasing risk to road users and future maintenance liabilities. Vehicle Restraint Systems (steel) have a life span of approx. 20 years.

Maintenance Strategy

Long life asset and intervention only required in the event of a defect occurring/vehicle strike.

Planned inspections to ensure that the asset performs as intended (25% of the network is inspected every year (4-year cycle) where funds allow).
Re-tensioning – 50% of the network is re-tensioned every 2 years where funds allow.

Revenue Investment

Revenue funding for Vehicle Restraint Systems (VRS) is currently through a small maintenance budget. Routine interventions are carried out to ensure the VRS network remains safe and functional, primarily through reactive repairs following impacts or the identification of critical defects. However, this reactive approach limits the ability to proactively manage the asset and sustain long-term performance.

Revenue Maintenance Process

VRS defects are identified through routine safety inspections and reports from stakeholders. A risk-based approach is applied to determine the appropriate response to each defect, prioritising safety and operational performance. Permanent repairs are carried out to ensure long-term asset integrity.

Capital Investment

Capital investment in Vehicle Restraint Systems (VRS) is currently limited, with funding drawn from a small maintenance budget. As a result, only 50% of the network undergoes re-tensioning. Re-tensioning is a critical maintenance activity that ensures VRS assets continue to perform as designed during vehicle impacts. Without adequate investment, the effectiveness and safety of the network are compromised, increasing the risk to road users and the likelihood of higher future costs due to reactive repairs or system failures.

Capital Maintenance Process

With limited funding only 50% of the network gets re-tensioned every 2 years.

Challenges

- Should aim to re-tension barriers every two years but lack of budget makes this very difficult
- Concrete barriers
- Number of cars hitting the barriers

Forward Plan
Base
Leicestershire will adopt a risk-based, lifecycle approach to manage its 102km of Vehicle Restraint Systems (VRS), ensuring safety, serviceability, and sustainability. VRS assets are primarily located on high-speed, high-risk roads and serve to protect road users from hazards such as bridge parapets, drops, and oncoming traffic. The forward plan includes routine inspections of the VRS network annually, forming a four-year inspection cycle, re-tensioning of 25% of the network each year—subject to available funding. The entire network was expected to be tensioned by the end of 2024/25, with inspections renewing again on a four-year cycle this year. The current plan prioritises risk-based decision-making based on severity, location, and history of vehicle strikes, and where feasible the council considers lifecycle planning, and integration with broader asset management systems Challenges include budget constraints, increasing vehicle strikes, and the need for more frequent re-tensioning. The council maintains its undertaking of crucial collaboration with various stakeholders, also promoting a consistent review of operational procedures. The Council will continue to explore sustainable materials, improve inventory data, and align VRS management with broader asset strategies under the Asset Management framework.
Ideal
With greater financial flexibility, for managing Vehicle Restraint Systems (VRS), a range of improvements could be implemented for a comprehensive upgrade and maintenance programme that boosts road safety and asset resilience. Increased funding would support the replacement of outdated systems with modern, advanced-specification barriers that meet higher safety standards. This would be particularly important in high-risk areas such as bends, bridges, and high-speed routes. All welded angle beams currently out of specification would be repaired, improving safety. The Council would investigate replacing all tensioned corrugated beams (TCB) with flex beams across the network, reducing the need for frequent re-tensioning and improving long-term asset resilience. Concrete barriers would be installed in strategic locations, particularly on straight, high-speed roads and central reserves. These offer a 50-year service life, require no re-tensioning, and are better suited to containing heavier vehicles, delivering significant efficiencies over the asset lifecycle.
The inspection regime would be expanded to ensure full coverage annually, supported by vegetation clearance, identifying early signs of wear, corrosion, or damage and improved traffic management. Retensioning would be restored to a two-year cycle, ensuring optimal performance and safety. These improvements would reduce long-term costs, enhance road safety, and align with sustainability goals, ensuring the VRS network remains fit for purpose in a changing transport landscape.

10. Trees and Hedges - Asset Management Life Cycle Plan

Inventory

The County Council manages approximately 68,000 individual trees and 170 hectares of established woodland on its land holdings.
Numbers of individual trees on specific sites are as follows:

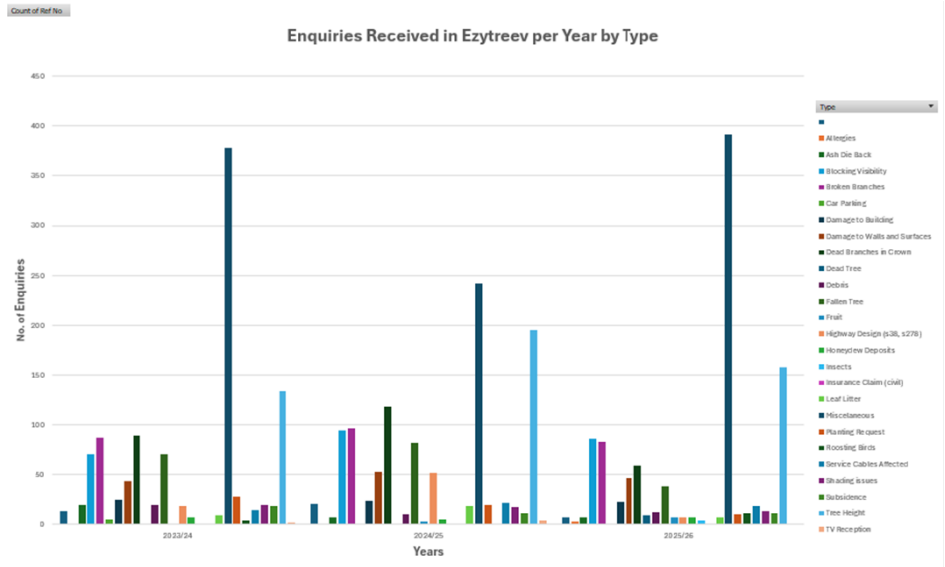
- Highway Trees - 40,000
- Trees on Schools - 15,000
- Trees on Country Parks - 10,000
- Trees on County Farms - 2,000
- Trees at Residential Homes - 1,000
- Trees on Industrial Properties – 500

Performance Requirements

The trees and hedges of Leicestershire are a valuable and essential element of our urban and rural landscapes, contributing significantly to the character of the County. They provide environmental, aesthetic, ecological and landscape benefits all of which enhance quality of life.

All trees and hedges in the County are situated on land which is affected by human activities. These activities often encroach onto the living environment of trees/hedges and therefore some form of management is required during their life span.

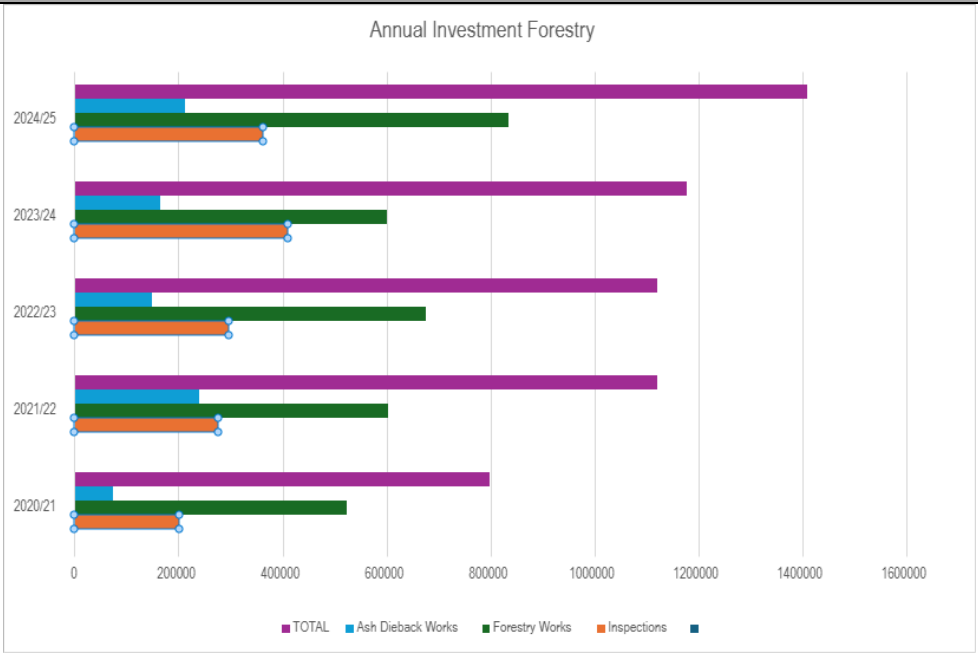
Asset Performance



Maintenance Strategy

Trees are maintained in accordance with the Policies contained within the Council's Tree Management Strategy

Revenue Investment



Forestry Investment	2020/21	2021/22	2022/23	2023/24	2024/25
Inspections	£202,329	£277,097	£296,565	£410,977	£362,147
Forestry Works	£522,840	£603,347	£675,475	£601,815	£834,108
Ash Dieback Works	£73,817	£239,409	£148,603	£164,315	£213,456
TOTAL	**£798,986**	**£1,119,853**	**£1,120,643**	**£1,177,108**	**£1,409,711**

Revenue Maintenance Process and forward plan

Acceptable and effective tree inspection procedures should ensure that changes in tree condition are noted and acted upon before the tree becomes hazardous and injury to persons or damage to property occurs.

The Tree Management Strategy (TMS) guides inspections, planting, and risk mitigation, including responses to ash dieback and climate-related threats.

Challenges

- Disease and climate change
- High risk of falling trees/limbs from highway trees, causing damage to 3rd party buildings, car, personal injury etc.
- Largest structure adjacent to highway is usually a tree.
- Self-optimising organism subject to change in condition over a short period of time.

Appendix C – Survey Types & Data Standard

Survey type/data standard	Detail
SCANNER	A road condition survey which measures many properties of the road surface including texture, rutting, ride quality and cracking.
SCRIM	A road condition survey that measures the frictional properties of the road surface. This specialist vehicle measures the frictional variation in skidding resistance of the road. For more information refer to the Leicestershire County Council 'Carriageway - Skidding Resistance Procedure'.
CVI	We currently use mobile devices fitted with artificial intelligence (Ai) software. This software captures forward facing video images of the road surface, signs, road markings and other highway assets. The Ai geo-references the position of these assets, so we can view their location and condition on a user interface via a web-based programme.
FNS	This survey is a walked visual inspection that grades the deterioration and extent of deterioration from 'as new' to 'structurally unsound.'
BCI	A system that generates a Bridge Condition Indicator based on the condition of individual elements of the bridge.
CoP	As defined in the current Code of Practice 'Well-Managed Highway Infrastructure'. Currently undertake Static Load tests to establish structural integrity.
Road condition data standard	Road condition data is used by to monitor, plan and prioritise our highway maintenance activities. The data is also published as official statistics by the Department for Transport (DfT) so that central government can monitor the condition of the national network of roads, as well as to inform the public, parliament and ministers.
PAS2161	This is a new road condition monitoring data standard, published in September 2024 by the British Standards Institution (BSI) and sponsored by the Department for Transport (DfT). It replaces, from April 2026, the old single-technology mandate, SCANNER, with a flexible framework that allows local authorities to use various accredited technologies to collect road condition data. The standard establishes a new, 1-to-5 rating scale for road condition, replaces the old red, amber, and green system, and sets high standards for data quality, validation, and reporting to the DfT. Currently we are required to use SCANNER but from April 2026 we can use a wider range of emerging technologies such as AI driven surveys and camera and sensor-based methods, providing the survey meets the new performance criteria. The previous red, amber and green condition rating will be in a new 1 to 5 format, with 1 indicating no deterioration and 5 indicating severe deterioration.