

Highways Infrastructure Asset Management Strategy

Gloucestershire County Council
August 2026



Gloucestershire
COUNTY COUNCIL

Highways

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Foreword



Kathryn Haworth
Assistant Director – Highways and
Infrastructure
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I am pleased to present Gloucestershire County Council's updated Asset Management Strategy. This strategy reinforces our commitment to embedding asset management principles across the delivery of highway services and ensuring that our resources are managed efficiently, sustainably, and in the best interests of the communities we serve.

The highway network is the Council's most valuable asset, supporting the delivery of almost all our corporate priorities. It enables children to travel to school, supports access to care services, facilitates the movement of people and goods, and underpins the delivery of services across Gloucestershire. As the Highway Authority, we are responsible for maintaining a diverse asset base, including roads, bridges, footways, cycleways, and public rights of way.

We are committed to managing these assets in accordance with the principles set out in our Asset Management Policy. Through a structured and evidence-based approach, we will continue to meet our statutory obligations, respond to stakeholder needs, maximise value from investment, and maintain the long-term performance and resilience of the highway network. This includes ensuring that the impacts of climate change and future climate conditions are considered in the delivery of the Transport Asset Management Plan, helping to create a more resilient and adaptable highway network for Gloucestershire.

The successful delivery of this strategy will rely on strong collaboration with our delivery partners, stakeholders, communities, and customers. By working together, we will achieve shared benefits and ensure that Gloucestershire's highway assets continue to support a safe, sustainable, and prosperous county for future generations.

Purpose of this strategy

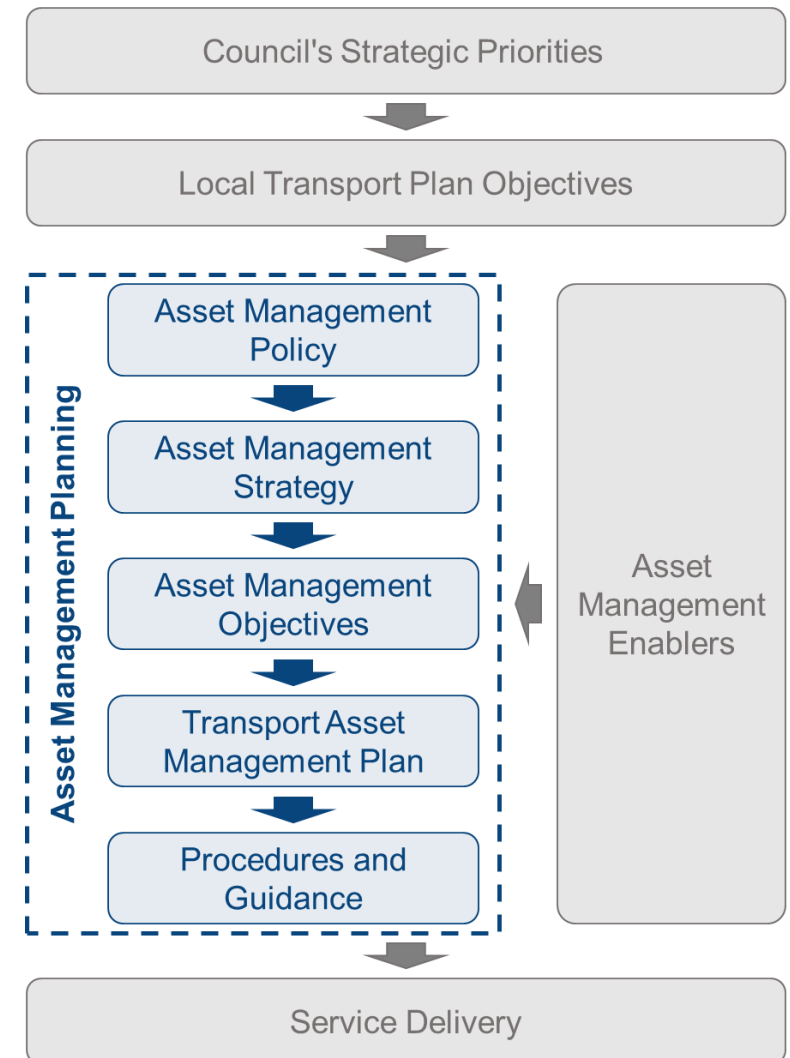
This strategy sets out how we use asset management to meet our long-term corporate objectives, including statutory obligations, stakeholder needs and the overall performance of our assets.

The purpose of this strategy is to set out how we will deliver the principles of our Asset Management Policy and thus achieve our long-term corporate objectives, such as delivering statutory obligations, addressing stakeholder needs and ensuring the overall performance of our assets.

We have been developing and implementing our asset management principles for highway infrastructure over a number of years. This strategy builds on the progress we have made to date and provides the basis to further develop our asset management processes to achieve greater efficiency and value for money whilst working to deliver Gloucestershire County Council's (GCC) objectives.

It outlines how asset management principles are adopted by our highways function but also provides a look forward to how we will grow and mature our capacity and capability further.

The strategy expands on the principles laid out in our Asset Management Policy and sets out the strategic framework for managing all our major highway assets – the diagram on the right shows where the Asset Management Strategy sits within this framework.



The benefits of implementing this strategy are to:

- » Support the delivery of GCC's strategic priorities
- » Establish clearly defined and achievable service standards
- » Formalise investment strategies for each asset class aiming to reduce whole lifecycle costs
- » Enhance understanding of our stakeholder needs
- » Improve access to information and services
- » Improve customer service and response
- » Increase adoption of innovative techniques in the maintenance and operation of our highway network
- » Provide a more resilient highway network
- » Support national and local strategies on carbon reduction and climate change
- » Drive continual improvement in the management of our highway assets

Forward look

We will regularly review and update our Asset Management Strategy to ensure it continues to be aligned to all relevant Council objectives and policies, and government requirements, as these evolve over time. This includes Local Government Reorganisation.



Gloucestershire's highway network

The highway network is our most valuable asset in terms of both financial and socio-economic value. We have a duty to maintain it so that it can serve all of Gloucestershire's road users.

Our Assets

The highway network is our most valuable asset, valued at over £9bn. It is key to achieving nearly all of our business objectives, providing the means by which children get to school, the elderly receive home help, waste is transported, and how our staff deliver services all around the county.

However, the highway network has a wider social value above the gross replacement cost. Travel is an integral part of the local economy in relation to both tourism and supporting economic development; as a rural county, we are dependent on our highway network for the movement of people and goods. When parts of the network are compromised by weather events, unplanned network repairs or major incidents, the impacts can be significant.

Well maintained local roads allow for safer and more reliable journeys, boosting local businesses and serving all road users. High quality local roads are also central to the future of transport, playing an important role in people taking up greener forms of transport such as cycling and buses.

We will continue to work with specialist bodies, such as the Environment Agency, our delivery partners, National Highways and local communities, to ensure that the highway network and the communities, trade and commerce that it serves, are protected in terms of network risk and resilience.



Delivering our core functions

As a Highway Authority we are responsible for:

- » Maintaining the highway network which includes roads, bridges, pavements, cycle ways and footpaths.
- » Maintaining all highway assets including road and pavement surfaces; bridge structures; street lights; traffic signals; gullies and drainage systems; verges and trees; bollards and street furniture; signs and road markings; highway retaining walls etc.
- » Delivering new or adopted highway infrastructure to help deliver the Council's objectives.
- » Providing an interface between the Council and the public, parish and town councils and members, providing 24/7 response to highway emergencies.

We understand the benefits of asset management and are proactively taking steps to further embed asset management into our processes. Our approach to managing the network is fully endorsed by our senior decision makers who receive regular reports and updates on strategic asset management issues. This also extends into our delivery partners and supply chain, who are ultimately responsible for maintaining the network and delivering improvement works.

We have several contracts in place to enable us to undertake the necessary works and deliver services.

- » Ringway: provision of highways maintenance services
- » Tarmac: provision of resurfacing works
- » M Group: provision of street lighting maintenance services
- » Telent: provision of traffic signals maintenance services
- » WSP: provision of highways consultancy services

We hold ISO44001 accreditation for our collaborative business arrangements with our Tier 1 providers, WSP and Ringway.



Forward look

We will continue to support the Council's ambition of a well-maintained road network which serves all of Gloucestershire, creating a more resilient network, and supporting reliable journeys which help boost local businesses.

We will contribute to achieving a greener Gloucestershire by continuing to reduce our carbon emissions to help reach net zero and lead by example by putting climate change at the heart of decision-making and partnership working, while ensuring the highway network remains resilient to the impacts of current and future climate change.

We will work closely with the communities across the county to gain an understanding of socio-economic benefits of maintaining and regenerating the highways network.



Why asset management

Asset management is a continual process of leadership, planning and decision-making that will enable us to achieve our objectives and deliver value to stakeholders in a consistent and structured way.

The Gloucestershire highway network covers over 3,800 miles and is composed of a multitude of diverse assets which need managing. Our asset management approach helps us understand the value of our network and the costs linked with maintaining it to different potential standards to help manage deterioration and maintenance backlogs.

Our asset management processes allow us to identify all the assets in the network and establish their current condition to develop a framework for effectively managing them. Asset management also enable us to understand the future needs of the network and prioritise the funding available to meet those needs.

The suite of strategic documents consists of an Asset Management Policy, Strategy, and Transport Asset Management Plan (TAMP). These documents have been developed using good practice for asset management, including guidance such as the UK Roads Leadership Group (UKRLG) Highway Infrastructure Asset Management Guidance (HIAMG); and Code of Practice, plus the Chartered Institute of Public Finance and Accounting (CIPFA) Code of Practice on Transport Infrastructure Assets. The documents can be found [here](#).

Benefits of Asset Management

- ✓ Formalises and documents standards and processes
- ✓ Helps us provide an informed response to budget pressures
- ✓ Records what assets we have and their condition
- ✓ Enhances understanding of infrastructure age, condition and associated risks
- ✓ Leads to consistency of practices
- ✓ Provides an audit trail
- ✓ Assists with managing public expectations
- ✓ Acknowledges that future spending requirements are not always the same.

Our vision and values

Our Vision:

“We want Gloucestershire to be a county where everyone can live a healthy life, get a good education and job, and feel proud of their area. We aim to make sure everyone is treated fairly, can access opportunities and services easily, and feels welcome in a kind and caring community”.

The Council Strategy 2025-2029 sets out Gloucestershire’s priorities:

- » Children and young people thrive
- » Strong, healthy communities that care
- » A place to be proud of
- » An open, fair and sustainable Council

To support the delivery of these priorities, our Local Transport Plan sets out the following long-term objectives to support the Gloucestershire County Council vision:

- » Improve community health and wellbeing and promote equality of opportunity
- » Support sustainable economic growth
- » Enable safe and affordable community connectivity
- » Protect and enhance the natural and built environment

Our plans for maintaining our roads are built upon the following four key principles set out in our Asset Management Policy:			
We will keep people and goods moving and help our economy	High levels of satisfaction with roads	Be at the forefront of highways technological transformation and innovation	More efficient use of resources and more use of sustainable energy
Implement the right repair or renewal at the right time	Improve information on service delivery, making it easier to report and track progress of repairs	Utilise technology and digital tools to improve the delivery of our services and monitor network resilience and performance	Reduce demand for reactive services and repeat requests through better planning, prevention and service design.
Take a coordinated approach to maintenance activities	Improve communication and transparency whilst remaining economically efficient	Continue to improve knowledge and understanding of highway assets through data-led, risk-based and whole-life asset management	Minimise energy consumption across highway assets and identify opportunities to reduce or offset carbon impacts
Manage the highway network to minimise congestion and to prioritise movement for all users	Deliver services to the standards we set out to achieve	Use technology and innovation to support active travel, public transport and more efficient use of resources	Apply a continuous improvement approach to maximise efficiency and ensure effective use of resources

Asset Management Objectives

Our objectives reflect our responsibilities when implementing our Asset Management Policy, and thus our strategic objectives and Local Transport Plan commitments. These objectives will guide our decisions and actions in operating and maintaining the network.



Safe and reliable service – Provide a local road network that is safe and delivers consistent and predictable journeys for all users, including increased volumes of active travel users.



Customer focus – Engage with road users, local communities, and wider stakeholders, to listen to and consider their needs and expectations, and to communicate in an open and accessible way.



Resilient network – Ensure continuity of vital services, manage risks and adapt the network to the impacts of climate change.



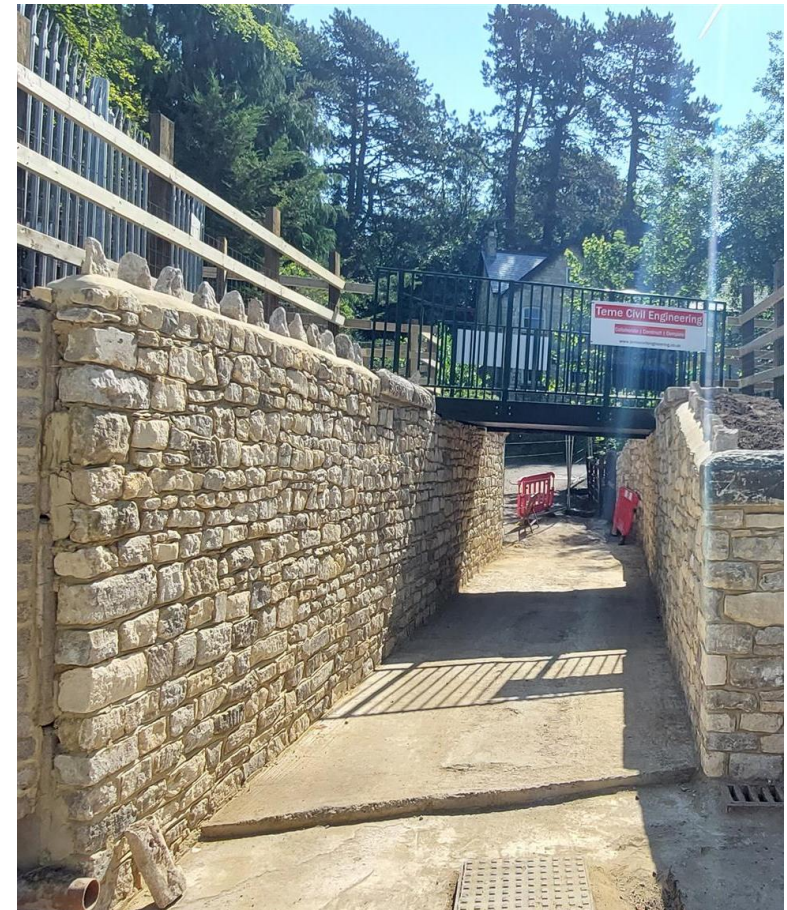
Greener Gloucestershire – Support decarbonisation of transport, enhance the natural environment and biodiversity, and reduce energy use and waste.



Digital transformation – Innovate and apply technology to improve the customer experience and to manage the network using a data-led approach.



Value for money – Ensure an efficient use of the available resources for the management of the local road network to support Gloucestershire's sustainable economic growth.



Our stakeholders

It is important to consider the needs and requirements of all our users and stakeholders when setting our asset management objectives and processes. This is especially important where there might be conflict between different stakeholder needs. We consider our users and stakeholders to be any individual, group or organisation that can be affected by our management of the highway network. Examples of some of our stakeholders and their requirements are included in the table to the right.

Forward look

We will periodically review our suite of asset management documents (last updated in 2025).

We will continue to engage with key stakeholder groups to ensure their needs and expectations are reflected in our asset management decisions and service delivery. Through our communication strategy, we will maintain regular engagement with stakeholders and enhance the customer experience when reporting and tracking highway issues.

Stakeholder type	Needs and expectations
Gloucestershire County Council Members and Staff	- Support the delivery of the Council's strategic priorities and Local Transport Plan objectives - Promote and champion the principles of asset management across service delivery.
Delivery partners and supply chain	- Deliver highway maintenance and improvement works safely, efficiently, and to the required standards. - Act as key representatives of the Council when engaging with highway users and communities.
Road users	- Safe, reliable and efficient and reliable journeys. - A well-maintained and resilient highway network.
Active travel users	- Accessible, high-quality infrastructure that supports safe and convenient walking and cycling. - Networks free from unnecessary barriers and obstacles.
Local businesses, parishes and communities	- Sustainable transport solutions that support economic growth, connectivity, and accessibility. - Investment in highway infrastructure that enhances local places and reduces inequalities.
Strategic Partners and Adjacent Local Highway Authorities	- Alignment of plans and investment with regional and national transport policies and objectives. - Collaborative working to deliver integrated and efficient transport solutions.

Planning to deliver our services

This strategy helps us to deliver safer, more reliable journeys in a cost-effective manner.

To minimise long term costs and improve value for money in the services we deliver, we need to prioritise long-term demands over short-term ones.

An asset management approach enables us to take a long-term, evidence-based view of the network, prioritising investment where it will deliver the greatest benefit for Gloucestershire residents. By planning and intervening at the right time, we can maintain assets more efficiently, improve network resilience, and reduce the need for costly reactive maintenance.

Gloucestershire has a wide variety of roads and footways, from high volume dual carriageways in congested urban environments to single lane rural roads connecting small farms or villages. It is not possible to maintain every road to a high standard, the maintenance backlog and limited funding available simply make this impossible. Data led asset management is the best way to achieve best value for money across the whole network.

We have developed a specific approach to how we manage each asset class which is set out in the TAMP.



Lifecycle plans

The purpose of a life cycle plan is to document how a particular asset is managed, identify current and future needs in terms of predicted works and anticipated funding need with reference to the level of service required or that can be afforded. Lifecycle plans form the operational element of the TAMP and are intended to support decisions on maintenance interventions, investment strategies, asset condition management, and long-term levels of service across the highway network.

Life cycle plans present a record, from creation to disposal, of available asset information and cover key work activities used in the management of a highway network. For most of the key assets (carriageways, footways, bridges and highway lighting) we have life cycle plans in place documenting current practice; however, for some assets these are less developed and will continue to evolve as the TAMP is updated. Life cycle plans will need to reflect any changes on the Council's budget allocation as any increase or decrease in revenue expenditure will have an impact on the long-term planning. We also need to exploit capital funding opportunities where possible to design out future maintenance.

Operations and maintenance of the asset

Activities undertaken to ensure the efficient operation and serviceability of the asset, typically referred to as routine maintenance. Routine maintenance activities are revenue funded and are either reactive, such as pothole repair and white line replacement, or cyclical such as gully emptying and grass cutting.

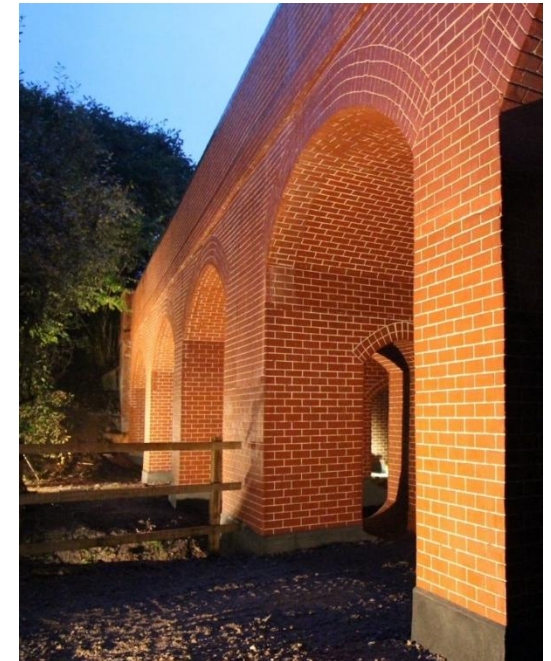
Renewal or replacement of the asset

Provision for progressive replacement of individual assets that have reached the end of their useful life and cannot be sustained by routine maintenance alone. Typically referred to as structural maintenance these activities are funded by capital expenditure and include reconstruction, overlay, resurfacing, patching and surface dressing of carriageways or footways, remedial earthworks and replacement of highway drainage systems, i.e. pipework, manholes, etc, or major repairs to these system

Forward look

We will continue to review and align lifecycle plans with existing maintenance guidance, creating a unified maintenance manual for each asset type that supports consistent management, maintenance and renewal activities throughout its lifecycle.

We will use the lifecycle plans to develop investment cases that make the case for appropriate funding to maintain our highway network.



Delivering our services

Effective asset management helps us make good decisions by utilising data and having the right resources in place to manage risks and deliver our objectives.

Risks & Opportunities

Managing risk is an integral part of the management of the highway asset. Risks should be identified at each level of the management hierarchy using tools and procedures to identify critical risks and then manage them.

- » **Strategic risks** include long term influences such as climate change, and the impact of policy decisions (e.g. Local Government Reforms) on the ability to deliver services.
- » **Tactical risks** include the impact of reduced public finances, and the impact of insufficient investment on the overall condition of the assets.
- » **Operational risks** are the risks to our staff and contractors when working on the network, and risks to road users.

Risk management processes are the key to maintaining a resilient, safe and effective highway network. We have a joint risk register, with our delivery partners which feeds in to, and supplements the Corporate Risk Policy by identifying the tactical and operational risks encountered in the management of the highway assets.

Key risks to Gloucestershire's Highway Network

Funding pressures and Financial uncertainty

Increased pressure on capital budgets and the Council's revenue funds creates challenges.

Ageing infrastructure and Asset deterioration

Asset condition is declining as large cohorts of ageing assets reach critical condition and long-term funding remains below standstill requirements.

Changes in future demand and network use

Assessing the current and future needs of all users of the highway network

Climate change and Severe weather events

Assessing and responding to climate change is essential to improving the resilience of the highway network and its ageing assets.

Network resilience and Service Disruption

Failure to consider and mitigate key risks may adversely impact resilience and result in service disruption.

Health, safety, and operational risks associated with service delivery

Safety implications are non-negotiable (for staff and the public). Ongoing challenges around recruitment of skilled staff and an ageing existing workforce.

Data, Processes and Tools

Data

Our asset data describes what highways assets we have, where they are, how old they are and how they perform. This data is fundamental to effective asset management and plays a key role in informing decision-making. It is therefore important that data is managed to appropriate standards throughout its lifecycle.

Data management includes defining information requirements, establishing methods for data collection and processing, and determining how data will be retained, archived, or disposed of when no longer required.

As with any other asset, data must be stored securely, maintained to an appropriate level of quality, and kept accurate, current, relevant, and complete to support informed and reliable decision-making.

Processes

Our processes ensure we are consistent in the delivery of all of our activities reducing the risk to our assets. Having the right processes in place helps us understand how we want to manage and align our data, information, and systems.

Tools

We manage our data using systems such as AMX and CONFIRM which allow us to store and process our asset data to make informed decisions on asset investment and report performance in a meaningful way. Advances in technology and processing, including artificial intelligence, will help give us insight and make informed decisions.

We collect, monitor and measure the following types of data:



Financial

budget, spend, forecast, capital and operational expenditure



Inventory

number, location, size, type, age of each asset



Performance

measurement of the condition of the asset



Use

how assets are being used

Resources: People and Funding

The current conditions in both the construction sector and in the national/global economy are creating a background of volatility which can affect how we deliver our services. There is a significant shortage of construction workers, combined with supply chain limitations and inflation conditions affecting materials prices. Combined with a more constrained financial position this will bring challenges to the cost of maintaining the network.

People

There are significant challenges in the recruitment of skilled staff in the construction industry, with a high proportion of our operatives in the workforce over the age of 50. Our Highway Skills Academy will continue to develop and bring on board new talent via Apprenticeships and Continual Professional Development. Additionally, succession planning across the teams is vital to ensure that the structure has sufficient capacity and resilience to deliver Gloucestershire's agenda now and in the future.

Funding

Effective asset management of the highway network is supported through a variety of funding streams, including Department for Transport (DFT) capital grants, Active Travel funding, Economic Growth funding, Section 106 developer contributions, and revenue funding provided through the Council's corporate budget. In addition, Structures Fund investment is bid for to target deteriorating highway structures and other critical assets, helping to maintain network resilience, safety and serviceability.



However, inflation pressures, aging infrastructure and maintenance backlogs continue to create additional pressures within revenue and capital budgets. Climate change also impacts on the rate of deterioration of assets and the frequency of major response incidents.

Forward look

We will continue to plan for the future to understand workforce requirements and promote our Highway Skills Academy to ensure that our staff have the competencies required to successfully achieve their objectives.

We will explore and maximise opportunities for data-led investment in building network resilience and will embrace the opportunities which technology brings with the aim of improving the service.



Managing our performance

Regular review and monitoring of performance is required to successfully deliver asset management and deliver appropriate service to meet our stakeholders' needs.

Understanding performance

It is critical that we understand our performance, not only in terms of the condition of our assets and delivery of tasks, but also in terms of the application of our asset management approach and delivery of service to our stakeholders.

This process helps us identify where our performance meets or exceeds expectation so this can be reinforced in how we work, plus it helps us understand where required levels of performance are not being achieved so that corrective action can be taken.

Measuring performance

We have set out a selection of key performance indicators (KPIs) which are accompanied by a series of service indicators. Measuring and monitoring how well we are meeting these performance indicators is key to continual asset management improvement. The box to the right shows some of our key performance indicators.

Formal quarterly reporting of these KPIs is published on the [Council Performance](#) page of our website.

Key Performance indicators

- ✓ % of 2-hour emergency repairs made on time
- ✓ % of 24-hour defects repaired on time
- ✓ % of 28-day defects repaired in time
- ✓ % of structural maintenance programme delivered
- ✓ % of principal roads where maintenance should be considered
- ✓ % of non-principal classified roads where maintenance should be considered
- ✓ % of unclassified roads where maintenance should be considered
- ✓ % delivery of the annual gully emptying programme
- ✓ Overall resident satisfaction with Highways Network (NHT survey)
- ✓ Number of Winter maintenance runs completed
- ✓ Average number of additional days to complete overdue 28-day defect repairs

Monitoring performance

Different ways of monitoring performance are required for different aspects of our highway asset management approach, with good practice outlining the following processes:

- » **Strategic monitoring** – Assurance that asset management is implemented as intended if strategic objectives are achievable and aligned to wider organisational objectives.
- » **Measures and targets** – Use of metrics to benchmark strategic and operational performance against agreed levels of service and other similar local authorities.
- » **System audits** – Review of data and insights generated, to understand if data is fit for purpose and whether outputs are reliable and useful.
- » **Compliance and quality monitoring** – The review of performance across the entire supply chain, related to contractual obligations and maintenance/repair standards.



Forward look

We will strive to ensure that we provide a reliable service by delivering against our performance indicators.

Going forward, we will link our performance indicators to our new asset management objectives to gain a better understanding of how we deliver value for money to our customers. We will also underpin this with a principle of driving value for money across services through lean review.

We will also aim to increase our ability to monitor and operate a sustainable network in the face of significant climate change challenges.

Continuous improvement

We aim to continually improve our asset management maturity and effectiveness through a systematic quality-based approach.

Gloucestershire County Council is committed to the continuous improvement of its asset management practices. We will regularly review and refine our lifecycle plans, investment strategies, asset data, and performance measures to ensure they remain fit for purpose and align with service requirements, industry best practice, climate resilience objectives, and stakeholder expectations.

Our continued focus will be on strengthening asset intelligence, supporting evidence-based decision making, achieving greater value for money, and delivering sustainable, resilient highway services for the communities of Gloucestershire.

To continually improve our asset management processes, we will:

- » Review and improve asset management processes.
- » Maintain asset management skills and competencies.
- » Strengthen stakeholder communication and engagement.
- » Use data to drive better asset decisions.
- » Better understand customer needs and priorities.
- » Continuously assess risks, opportunities, and performance.

