

\* 10 **Standing Overview Group - Highways Infrastructure Asset Management Plan**

Highways Infrastructure Asset Management Plan

Draft Policy 2022

Draft Strategy 2022



## Highway Asset Management Policy

Devon County Council has established a long term vision and purpose for the county. The plan focuses on how we will help the county to recover from the COVID-19 pandemic, build on the resilience of local people and communities to create a fairer, healthier and more caring place, and grasp the opportunity to create a greener, more prosperous and inclusive future for all.

The County Council wants Devon to be the Best Place to...

### Grow up

*We are committed to being a child friendly Devon where all children and young people are safe, healthy, ambitious, and can fulfil their potential*

### Live well

*We are committed to being a fairer Devon: inclusive, compassionate and caring, where everyone is safe, connected and resilient*

### Prosper

*We are committed to being a greener and prosperous Devon, with opportunities to create a sustainable future for all*

This ambition sets the context for the Highways and Traffic Management Service. The network is one of the few universal services that is used by all of Devon's communities as well as the hundred of thousands of visitors that Devon welcomes each year. The assets we maintain includes

- Carriageways (including Drainage)
- Bridges
- Retaining Walls
- Footways and Cycleways
- Public Rights of Way
- Shared Community Trails (off road trails for walkers and cyclists)
- Drainage Systems
- Streetlights
- Traffic Signals
- Fencing and Barriers
- Trees and Soft Landscape

This Highways Infrastructure Asset Management Policy and the accompanying Strategy have been developed to ensure the highway network and associated assets are maintained in an appropriate way to meet the following challenges identified in the Strategic Plan.

### Climate change

*Climate change poses a serious threat to quality of life now and for future generations. It will damage biodiversity, disrupt food production, damage infrastructure, threaten jobs, and harm human health.*

# Agenda Item 10

*Disadvantaged and less affluent groups are likely to be most negatively affected by climate change, and the effects of climate change may make disadvantage worse. As a community leader, the County Council has an important role to help tackle the climate emergency and enable communities to adapt to climate change.*

## Devon's changing population

*Devon's population is ageing and growing, with proportionately more older people when compared nationally.*

*More adults have complex health needs and are living with them longer. This requires a good quality health and social care system for a future population that is rising and ageing, and for more people living longer in ill-health.*

*Some of Devon's young people grow up in areas that are relatively deprived and where their prospects of achieving greater financial success are limited, so all young people must be supported to have good life opportunities and job prospects.*

## Fairness and equality

*COVID-19 has brought to wider consciousness inequalities within society, in areas from healthcare to technology. These inequalities are felt along various lines, including ethnicity, disability and income.*

*We need to continue, in all that we do, to reduce inequalities for vulnerable, disadvantaged or isolated communities, to ensure more people can reach their own potential, have equality of opportunity and are free from discrimination and harassment.*

## Trust and confidence

*Research during the pandemic shows that trust in local government and feelings of local unity have remained higher than at the national level, and local communities have become more important than ever.*

*Maintaining this trust by acting as a community leader, drawing together different public sector partners and community groups, and engaging more fully with citizens are more important than ever as we recover and look forward.*

## Financial resilience and prosperity

*The pandemic has caused an economic decline not witnessed in the UK since the 1930s. Even before the pandemic, Devon was home to the District area with the lowest average wages in the UK.*

*We need to help level up our economy, supporting areas of low economic growth and social mobility, to provide a prosperous future for all our communities.*

To achieve this aim we will

- Regularly collect and maintain good quality asset condition survey data to inform the development of a Highway Infrastructure Asset Programme.
- Take a long-term view using a systematic, risk-based approach based on defined levels of service for each asset

- Consider the whole life costs of maintaining an asset; we will look at what will provide best return on the money we spend in the long term, rather than a 'worst-first' short term maintenance treatment
- Encouraging and enabling communities to influence and undertake elements of the service
- Understand the lifecycle of each asset and use this knowledge to plan when is the best time to do maintenance to keep the asset in a safe and serviceable condition and when it is time to replace it with new.
- Measure and review Highway Infrastructure Asset Management Plan performance to promote continuous improvement and influence spending on different assets.
- Develop maintenance programmes using asset condition data as the starting point and utilising local intelligence where appropriate
- Present an Annual Maintenance Programme annually to Cabinet for investment decision making approval.



# Highway Infrastructure Asset Management Strategy

Devon County Council April 2022



## 1. Introduction

This Strategy is part of a suite of documents that describes the Council's highway asset management approach:

### Highway infrastructure asset management policy

A concise document describing what the Council's approach is and how it links with the Council's overarching objectives.

### Highway infrastructure asset management strategy

The Organisation's overall approach to delivering highway asset management.

### Highway infrastructure asset management plan and annexes

Detail and depth describing how the Council uses asset management tools to develop effective processes to plan, operate, monitor and review the highway network assets.

### The Strategy

This Strategy identifies the overall approach being undertaken over the next three years to effectively manage the highway asset infrastructure in Devon. It identifies the asset groups and describes the current and future demand that each of these faces and how we will determine levels of service throughout the life of this Strategy. It also considers what resource is available and how funding allocation will be considered and approved. The Strategy also uses national guidance and asset management tools to predict how an effective asset management approach will limit an anticipated decline in the network during this time. The information in this document will enable the council to make more informed decisions to ensure that management of the highway network contributes to Devon being the best place to grow up, live well and prosper.

What do we mean by asset management? Firstly, an asset, in the context of this strategy, is 'a useful or valuable thing'. In terms of asset management, a definition used by the Institute of Asset Management reads "**Asset management is the combined activity of an organisation to realise value from its assets.**"

As further context, the UK Roads Liaison Group has produced national guidance for highway Infrastructure asset management and define asset management as:

***"A systematic approach to meeting the strategic need for the management and maintenance of highway infrastructure assets through long term planning and optimal allocation of resources in order to manage risk and meet the performance requirements of the authority in the most efficient and sustainable manner."***



## 2.0 Developing the Council's vision for Highway Infrastructure Assets

### Introduction

This Strategy replaces the Highway Infrastructure Asset Management Strategy approved by Cabinet in 2016. It takes account of changes in national guidance and in particular a revised code of practice, 'Well-Managed Highway Infrastructure'. In reviewing and updating the Strategy the service has undertaken an asset management maturity review and a highway data management review with external support. In addition, the Highway and Traffic Management Service has undertaken a guided self-assessment review facilitated by the Future Highway Research Group. Although these reviews identify that the Service is in good shape and asset management is used effectively, there are recommendations and suggestions for incorporation in our Strategy for the next few years and these have been addressed in this update.

The Service can demonstrate an improvement in the condition of highway network assets throughout the last five years and the detail of this is available throughout this document and our updated Highway Infrastructure Asset Plan.

### Highway Asset Groups

As part of the asset management framework, and in accordance with other national guidance, our highway asset has been divided into asset groups. Each group is then broken down into asset components and activities. The asset groups and components are described below.

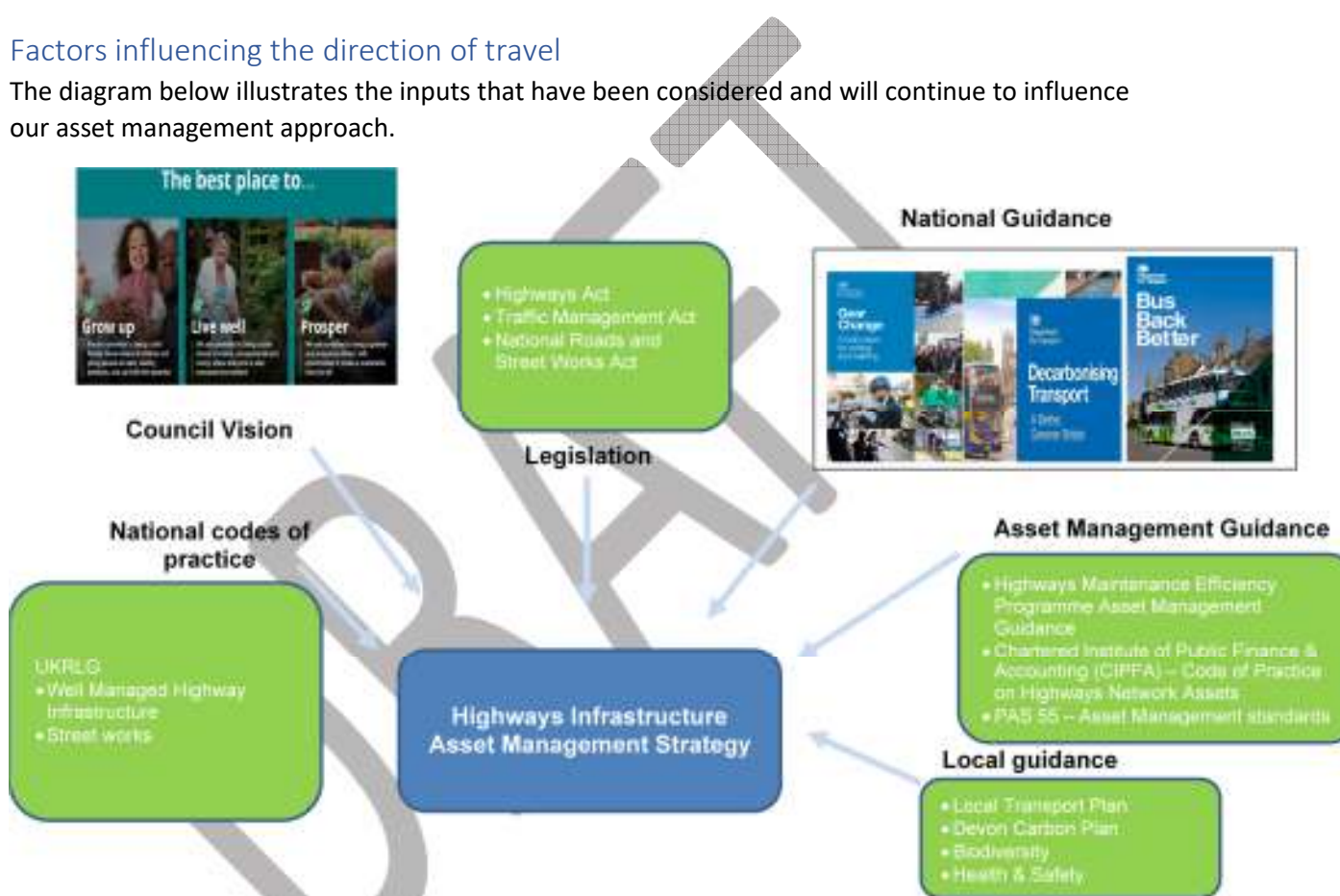
**Our Asset groups and components:** Highway infrastructure assets have been divided into groups and components as listed in Table 1.

Table 1: Highway Asset Groups		
Group	Components	Further information
Carriageways	Road surfaces	12,971 km of roads, the longest highway network in the country
Footways and Cycle ways	Footways surfaces	3,972 km of footway Over 1,000 km of cycle routes
Structures	Bridges, retaining walls, culverts etc.	3,317 bridges 1,810 retaining walls
Drainage	Piped systems, gullies, grips buddleholes and easements	180,000 Gullies
Safety Fencing	Vehicle restraint systems, guard rails, fences	

Highway Lighting	Columns, illuminated signs, etc	Over 80,000 streetlights
Public Rights of Way	Footpaths, bridleways, byways, signs, styles gates etc.	5,017 km of Public Rights of Way
Traffic Management systems	Signals and pedestrian crossings	
Street Furniture	Signs and other street furniture	
Land	Highway verge	

### Factors influencing the direction of travel

The diagram below illustrates the inputs that have been considered and will continue to influence our asset management approach.



It is important that we identify how we will contribute to the Council's Strategic Plan 'Best Place'. Further details on how this strategy aligns to the Council's Strategic Plan are provided in the Levels of Service section of this document and in the Policy document.

### The National Perspective

Since the last Asset Management Plan was drafted there have been significant national and international events that have had a dramatic influence on local and national policy.

In October 2018 the UK Roads Liaison Group published '[Well-managed Highway Infrastructure: A Code of Practice](#)'. This document promoted the transition from a series of specific guidance and recommendations to an integrated risk-based approach determined by individual Highway Authorities in accordance with their local needs, priorities and affordability. This publication has

been key in the development in Devon's approach to determining levels of service and identifying need across the network.

In May 2019 the [Devon Climate Emergency Response Group](#) of which DCC is a partner organization declared a climate and ecological emergency and endorsed the [Devon Climate Declaration](#). One of the key commitments within the declaration is:

***“We understand that the Intergovernmental Panel on Climate Change (IPCC) has advised that carbon emissions must reduce globally by at least 45% by 2030 from 2010 levels and reach net-zero by 2050 if we are to avoid the worst effects of climate change by keeping warming below 1.5 degrees.”***

In support of this commitment DCC has pledged to

- Reduce the 2012/13 corporate carbon footprint by 70% by 2030/31, as a minimum,
- Retain the existing target to source 30% of its total corporate energy requirement from renewable sources by 2030/31,
- Incrementally increase the percentage of the remaining carbon footprint that is offset, from 5% in the current year to 100% by 2030/31,
- Engage with contract providers to reduce carbon emissions from their operations and offset the remainder by 2030/31. As a first step, the council will engage the ten highest-value contract providers, and
- Offset residual emissions from the supply chain from the year 2030 onwards.

The asset management activities undertaken by the County Council account for a significant proportion of the total carbon emissions and provide an opportunity to support the challenge.

We are investigating, considering, and embedding new ways of working that help decarbonise the designing and commissioning of construction works. Carbon emission calculations include all areas of impact from the activity, from sourcing primary materials through to their disposal at the end of a project's life.

Devon County Council will look at carbon emissions not just for an isolated project, but also during the lifespan of an asset (*referred to as whole life carbon costing*). This will help us make the right decision for carbon reduction when selecting treatment types and intervention times.

The Highway Service and their supply chain need to work towards a carbon net zero position by 2030, for this to be achievable we will need to reduce the overall carbon footprint of highway maintenance. This goal will only be achieved by selecting treatments and materials that have a low carbon impact across their service life.

The specifications used by the Highway Service to procure work already include measures to reduce carbon, these include:

- Warm mix asphalt included as default choice,
- Inclusion of recycled material in the production of asphalt, and
- Use of recycling for carriageway maintenance.
- Use of electric vehicles

In light of the need to reduce carbon emissions, the Government has issued a number of new strategy documents. In September 2019 the first long-term bus strategy was laid out, backed by a funding settlement. This focus on buses was reinforced with the publishing of [Bus Back Better](#) in March 2021.

Bus Back Better is a national strategy that lays out the Government's vision and commitment to deliver better bus services across England. A coherent and integrated transport network should serve schools, health, social care, employment and other services. The management of highway assets can assist the aims to reduce journey times and improve reliability. There is a clear expectation in the document that the Government expects to see significant increases in bus priority including physical measures such as:

- Traffic signal priority,
- Bus gates, which allow buses to enter a road that prohibits access to other traffic, and
- Clear and consistent signage.

In addition to a much greater commitment to public transport the Government published their plan for increasing levels of active travel in a document titled '[Gear Change](#)' that was released in July 2020.

The aim of the Gear Change document is to create a step change in levels of cycling and walking to help tackle the following challenges

- Improving air quality,
- combatting climate change,
- improving health and wellbeing,
- addressing inequalities, and
- tackling congestion on our roads.

Decarbonising Transport: A Better, Greener Britain was published in July 2021 and sets out how the Government intends to deliver emission reductions and the associated benefits across all modes of transport including marine and aviation.

The response to the climate emergency is going to have significant impacts on the management of highway assets. There are going to be new types of assets on the network such as EV charging points and additional maintenance implications for new technologies such as connected and autonomous vehicles.

There is also new legislation impacting on how we manage highway traffic. With the introduction of Part 6 of the Traffic Management Act, Local Authorities will be able to take on powers to enforce a range of "moving traffic" offences, including prohibition of turns and yellow box junctions. The regulations giving effect to these powers were laid in Parliament on 27<sup>th</sup> January 2022. There will be an increasing requirement for all Authorities to audit and maintain these restrictions across their network.

## Funding

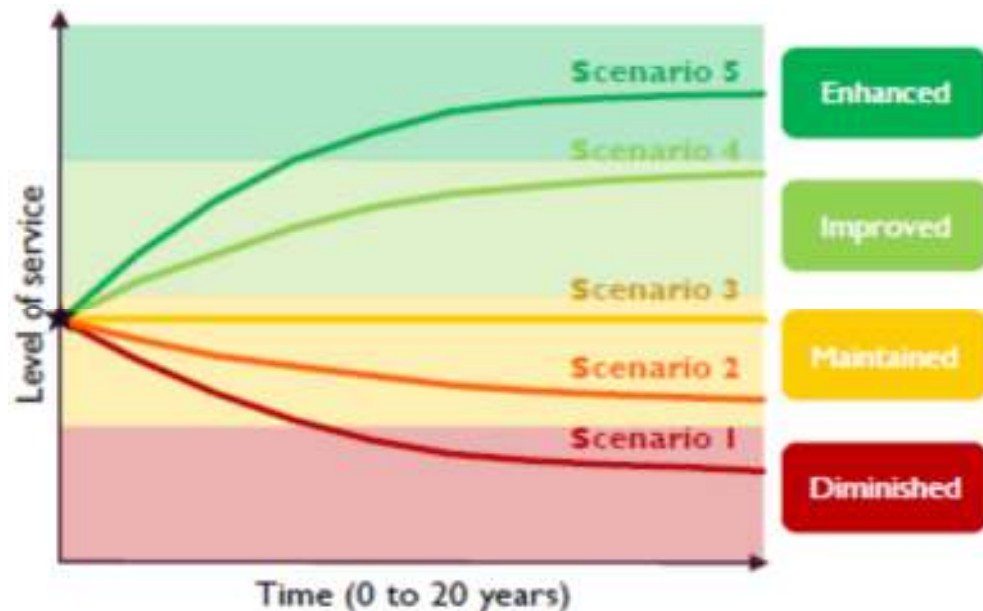
As most of the funding to renew or improve highway assets is received centrally from the DfT, in order to help us determine our strategy, it is important to consider what is currently happening nationally with highways and the indications for the future.

DfT data indicates there has been a decline in maintenance conditions across the local road network during the last 30 years with minor roads taking the biggest hit. Furthermore, over the last 6 years the RAC reports that motorists believe road conditions are getting worse. A one-time catch-up to remove the national backlog of road repairs would take ten years to complete and cost over £10bn.

UK Roads Liaison Group on behalf of Local Councils has provided a report to the DfT outlining how different investment scenarios will affect the local road network over the next twenty years. They

have outlined five separate investment scenarios and the required funding for each together with projections of the outcome that each of these will lead to.

At one end of the scale there is a strategy of accelerated improvement while at the other end there is a strategy of decline (matching the 21/22 funding allocation), with further details of how 3 other investment scenarios in between are likely to play out. The accelerated improvement scenario would see the backlog of road maintenance repair reduce by £400 m each year, eliminating all the backlog over 10 years.



In the autumn budget of 2021, a funding allocation of £2.7bn over the next three years was announced which follows the worst possible scenario of a decline.

What we can expect to see as a result, is an increase in annual backlog of repairs growing by £375m nationally each year. Network conditions will continue to decline and will be evidenced by bridge restrictions, increased flooding, more footway and carriageway defects and increasing resources directed at safety and reactive repairs.

### The Devon Perspective

Our asset modelling work suggests that across all highway assets (carriageway, footways, street lighting, bridges, drainage system, etc.) the current backlog to return all these assets to an as new condition is £1.6bn. However, we understand that funding on that scale is out of reach. A more realistic ambition is to hold highway assets in their current condition. However, the modelling suggests we should be investing over £62m per year to keep up with annual deterioration each year. With an annual settlement of 52.8m already agreed for the next 3 years, some further deterioration is inevitable. Further details on how this will be managed are provided in section 5.0 Funding and Investment Priorities section of the Strategy.

With an increasing focus on supporting bus services through the Bus Back Better strategy, it is also clear that a long-term investment strategy is required for our Park & Ride (including Park & Rail) sites, to ensure that these remain fit for purpose to support their services in coming years.

### 3.0 Core elements of the strategy



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## 4.0 Summary of review outcomes

### Asset Management Maturity Review – January 2021- WSP

WSP have developed a questionnaire based on the international asset management standard ISO 55000 to understand their 12 Highway Authority commissions current position and preparedness for change. The questionnaire assesses the asset management maturity within each commission.

Assessing the seven attributes

- Organisation
- Leadership
- Planning
- Support
- Operation
- Performance
- Improvement

This asset management maturity self-assessment process provided a good overall benchmark. The overall score for Devon was about average at 86% in comparison with the 12 other commissions. However, the Devon score was lower than 3 other large networks indicating there is room for improvement. 29 potential actions were identified. The highest priority ones were:

- Undertake a review of how Devon currently processes its asset data to inform works, in particular relating to programme and scheme development
- Undertake a review of the asset management systems
- Review performance framework regime

### Asset Management Review- Data and Systems May 2021, DCC/WSP

Supported by WSP the service undertook an asset management data review in 2021.

The objectives of the review were to:

- Identify risks associated with the current processes in place for managing of asset data.
- Seek opportunities for improvements in the management of asset data that are aligned with the asset management objectives.
- Establish whether the existing systems remain fit-for-purpose and whether these systems are likely to support the County Council's needs now and in the coming years.
- Establish how existing asset data and systems have been deployed to develop understanding of the asset through modelling and life cycle analysis.
- Seek opportunities for making improvements to this understanding

A key observation from this work was,

*Overall, there is comprehensive asset data available to enable DCC to carry out the activities set out in the Highway Asset Management Plan.*

This provides good assurance that the data systems we are currently using and developing are fit for purpose.

The report made 26 observations and recommendations, and these were risk assessed. The recommendations associated with highest risks are shown below.

- A definitive, up-to-date asset register for carriageways, footways and drainage should be identified.
- Improve the resilience of the service by sharing the detailed knowledge of the Senior Asset Intelligence Officer (Data).
- The deterioration models used in life cycle modelling have been determined from data on other networks. While these models may represent the behavior, it is recommended that they are calibrated to the deterioration models observed for Devon's network.

### Future Highways Research Group

In January 2021 the Service undertook a value for money assessment with the support of the Future Highways Research Group (FHRG). This review considered the following key areas.

- Economy
- Efficiency
- Effectiveness
- Strategic Value
- Stakeholder Value

Following this exercise, the Service has developed a series of priorities that are being addressed as capacity allows

Economy Factors	
Income / Services Trading	Devon Highways trades some services successfully, in particular its materials laboratory, but could do much more to support its challenging revenue position by exploiting some of the broader opportunities being commercialised by other FHRG members. The Service will need to develop both capacity and political support to enable it to pursue a more commercial strategy.
Front Line Operatives and Sub-Contractors	Whilst the front-line workforce and supply chain is relatively lean, flexibility and workflow remain challenging with the Service struggling to resource all activities at certain points of the year and having a surfeit of resource at others. The current business model promotes good competition but does require considerable contract management and can compromise continuity. It is timely for the Service to review its business model to ensure: <ul style="list-style-type: none"> <li>•The business model facilitates robust programming, productivity and workflow.</li> <li>•Client-side capacity is appropriate for the chosen model.</li> </ul>
Transaction Costs	There is some evidence from benchmarking that the Service is paying above market rate for safety defects currently. This is being investigated
Efficiency	
Management Capacity	The current business model requires a considerable level of contract management. Client-side capacity does not reflect this and whilst DCC Highways is clearly ambitious, the focus on operational delivery has stifled innovation and prevented the implementation of service improvement initiatives that could deliver real medium-term benefits in productivity.



Programming and Planning	All parties concur that earlier identification of schemes and better long-term planning would facilitate more productive use of operative and staff resource. In addition, the Doing What Matters initiative has identified a number of wasted steps in current processes.
Stakeholder Management	Whilst Devon Highways is, in many respects, an exemplar regarding wider stakeholder engagement, it does not manage day to day customer communication well. A multitude of communication channels and a customer service centre that does not triage effectively means that many technical staff are embroiled too heavily in day-to-day customer contact. This is a significant inhibitor to productivity.
Productivity Measures and Benchmarking	Devon Highways sits in the bottom quartile with regards to CQC measures and has limited productivity measures in place for non-professional staff currently, with little external benchmarking.
Effectiveness	
Service Development and Innovation	– The contract with Skanska contains specific clauses around additionality and innovation. Both parties acknowledge these have not been delivered to date, with the focus on getting BAU right, and that it is now time to look up and ensure innovation and best practice from across the Skanska group and more widely is being properly exploited in Devon.
Quality of Service	– Customer are considered to be broadly satisfied with the quality of service, with most complaints being about policies rather than quality. Member satisfaction has also improved in recent years. However, the Service lacks a comprehensive set of SMART outcome and quality measures which would enable consistent benchmarking and evidence-based performance evaluation. As a first step, the Service has commenced a project to develop a contemporary set of strategic objectives around which these measures can be delivered.
Environmental Benefits	– Devon Highways is doing some sector leading work around the carbon agenda and has worked well with its contractor to ensure staff have been properly trained in environmental practices and procedures. The Service acknowledges it is still at the start of this journey however with much more to achieve.
Cashable Financial Benefits	– ECI is not pursued currently in the development of business cases for capital schemes and the Service may be missing potential cashable benefits as a consequence. DfT has been critical of some outline business cases because of the absence of ECI.
Scope and Scale of Service	– The Service currently delivers only the statutory minimum service level in many areas and aspires to deliver a much greater scale of service. The issues identified elsewhere in this report regarding capacity, budget, innovation and productivity will need to be addressed to realise this ambition.
Strategic Value	Devon Highways' current business plan expires in 2021. The Service has commenced an exercise to develop a contemporary, forward-looking set of strategic objectives that flow from the Council's four strategic drivers. It will be important to underpin

	the new strategic objectives with a comprehensive suite of outcome-based performance measures and milestones.
Stakeholder Value	Segment and survey each identified Stakeholder Community to develop a comprehensive picture of each Stakeholder's view of the Service and observations on opportunities for further improvement.

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## 5.0 Levels of Service

### What are Levels of Service

Levels of Service are statements or themes that demonstrate the relationship between the Council's corporate objectives, including the Strategic Plan for 2021 - 2025, and the performance of highway infrastructure assets in terms of stakeholder requirements. They relate to performance and outcomes of the whole network rather than individual assets, and cover key aspects of performance including safety, serviceability, and sustainability.

### Establishing Levels of Service

We establish Levels of Service with stakeholders, senior decision makers and the public. We will review levels of service to confirm that they are affordable. Where funding is limited, maintaining statutory requirements will be a priority.

Factors used to define levels of service are:

- **Safety** – this is a statutory requirement for highway authorities.
- **Serviceability** – asset performance contributes to meeting stakeholder expectations.
- **Sustainability** – e.g. reducing carbon usage and noise pollution, re-use materials, recycling, low noise surfacing.
- **Accessibility** – reducing congestion, improving journey reliability, providing access to isolated communities and the vulnerable.
- **Financial Performance** – service delivery, choice of materials, third party funding and value for money.

### Our Levels of Service Statements

#### Responding to the climate emergency

- To maintain and improve walking and cycling infrastructure.
- To ensure that environmental best practice is embedded into the design and delivery of all works.
- To promote the recycling of highway materials.
- To maintain and improve public transport facilities and infrastructure.
- To progressively reduce carbon emissions generated by maintenance operations.

#### Be ambitious for children and young people

- To ensure that school transport roads operate effectively.

#### Support sustainable economic recovery

- To ensure network availability and condition supports freight distribution and commuter travel to work.

#### Tackle poverty and inequality

- To maintain access arrangements for all communities, with particular consideration of harder to reach groups across Devon.
- To continue developing works programmes based on asset need evidenced by data.

#### Improve health and wellbeing

- To support promotion of walking and cycling through maintenance and improvement of both leisure and utility routes.

## Help communities to be safe, connected, and resilient

- To enable communities to be involved in highway maintenance activities.
- To provide traffic management facilities and regulation for all highway users.
- To respond to highway safety issues.
- To maintain streetlighting.
- To actively seek community input into highway defect repair and planned works.

## Our Assets

### Carriageway including drainage

We maintain approximately 12,900km of roads in Devon, which is the largest Local Authority managed highway network in the country. This comprises 1,000km of A-roads, 700km of B-roads, 4,500km of C-roads and 6,700km of unclassified roads.

As it is integral to the asset operating safely, highway drainage is considered as part of the carriageway. Highway drainage systems capture surface water run-off to alleviate flooding and protect the fabric of the road. Highway drainage includes gullies, grips, chambers, culverts and drainage pipes, ditches and easements.

### Footways and Cycleways

We have a hierarchy of footways and cycleways that reflects their needs, priorities, and actual use. It is a tool for determining maintenance standards, targets, and performance.

We maintain over 1,800 miles of footways.

Cycleways are either managed as part of our carriageway or footway assets. As more cycling infrastructure is added to the network, subject to funding levels, the Council will develop a separate inventory of cycle routes.

### Structures

Highway structures are defined as any bridge or other structure that impinges in any way within the footprint of the highway or that materially affects the support of the highway or land immediately adjacent to it that meets certain dimensional criteria.

Highway structures include bridges, culverts, subways, footbridges, retaining walls and miscellaneous structures.

Devon County Council is responsible for a bridge stock of over 3,500 and 1,579 retaining walls.

### Public Rights of Way

As well as public footpaths and bridleways, the public rights of way team manage off-road shared use trails and unsurfaced unclassified country roads across the county and Stover Country Park and the Grand Western Canal.

We maintain approximately 5,000km of public rights of way, 560km of unsurfaced unclassified roads and 225km of off-road recreational trails, including the Devon sections of two National Trails (the South West Coast Path and England Coast Path).

### Traffic Signals and Street Lighting

The primary purpose of street lighting and traffic management is to improve safety for highway users. Not only do traffic management systems keep the network safe, but they also keep the network moving by managing congestion and sustaining economic viability.

Devon County Council maintains approximately 80,000 streetlights, 8,000 illuminated traffic signs, 2,000 illuminated bollards and 250 illuminated school patrol signs.

### Fencing and Barriers

The primary purpose of road restraint systems (barriers) is to reduce the risk to the travelling public of hazards adjacent to the highway such as steep inclines or physical obstructions. Devon is a predominantly rural county with a highly varied topography leading to many steep inclines. The Authority maintains approximately X m of roadside barrier.

In general fencing is the responsibility of the adjacent landowner. There are many cases across the county where fences have been erected as part of highway improvement schemes or Devon County Council is the land owner. The total length of fencing that Devon County Council is responsible for is unknown.

### Trees and Soft Landscape

Devon County Council is the owner of a significant tree stock across the county, much of which is on the highway.

Trees provide immense environmental benefits: they store carbon, clean the air, collect rainwater, provide shade, reduce noise, protect soil from erosion and harbour wildlife. Furthermore, they provide amenity and functional benefits, e.g. slowing vehicle speeds and providing shelter from wind.

However, trees are different from other highway assets because they are living; they grow, both above and below ground. They also shed leaves and branches and can occasionally fall over, all of which can present a hazard to highway users.

The Council intends to collect more information on the tree asset to better understand its value and contribution and allow proactive management.

Highway verges are an important and diverse part of the highway. Often they provide an important safety function in terms of visibility to highway users but also, they can offer a diverse habitat for flora and fauna, some of which can be rare.

Our primary aim is to ensure that the highway verge performs any safety critical function it is designed to do. This usually means keeping any vegetation to a certain height to prevent obstruction.

Where safety is not a concern, to either the highway users or those accessing the verges, the Council encourages local groups of residents and stakeholders to actively manage the verges and establish regimes that will promote local ecology, further contributing to environmental aims.

## How We Will Achieve Our Levels of Service

Asset	Service	Measure	Criteria	Target	Responding to the climate emergency	Be ambitious for children and young people	Support sustainable economic recovery	Tackle poverty and inequality	Improve health and wellbeing	Help communities to be safe, connected and resilient
Carriageways	Surface	Inspect highways at set frequencies and prioritise repairs to safety defects in accordance with the Highway Safety Inspection Policy.	*		✓		✓			✓
		Continue the development of the Community Road Warden Scheme (CRWS) by providing training, equipment and materials to local volunteers to assist with carrying out minor amenity maintenance activities and repairing non-safety defects.			✓		✓			✓
		Respond within 2 hours to any occurrence or incident that poses a threat to life or renders the highway unusable or unsafe.					✓	✓		✓
		Using road condition data and community feedback to develop and deliver an annual programme of carriageway structural maintenance repairs including resurfacing, patching and surface dressing to maintain roads within available budgets.			✓		✓	✓	✓	✓
		Survey skidding resistance on A roads and investigate, monitor and repair deficiencies and/or put-up slippery road warning signs.	*				✓			✓



Footways and Cycleways	Surface	Inspect footways and cycleway at set frequencies and prioritise repairs to safety defects in accordance with the Highway Safety Inspection Policy.	*		✓	✓	✓	✓	✓	✓
		Develop and deliver an annual programme of footway and cycleway maintenance repairs.			✓	✓	✓	✓	✓	✓
Structures	Bridges, Retaining Walls, Culverts	Carry out structures inspections in accordance with the national code of practice.					✓			✓
		Monitor those structures considered to be below standard.					✓			✓
		Using condition data develop and deliver an annual programme of bridge and retaining wall maintenance and structural repairs to maintain structures within available budgets.	*		✓		✓		✓	✓
		Target structures which are in the Poor/Very Poor condition band where this has a potential impact on safety.					✓			✓
Public Rights of Way and Shared Community Trails	Footpaths Bridleways, Byways, Signs, Styles, Gates	Carry out regular ease of use inspections on footpaths.	*		✓		✓	✓	✓	✓
		Continue the development of the Parish Paths Partnerships (P3) by providing support, training, equipment, materials and funding to enable volunteer maintenance of footpaths.			✓		✓		✓	✓



Traffic Signals and Streetlights	Traffic management	Respond within 4 hours to signal failures.					<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
		Operate an annual inspection, electrical testing and repair regime for all traffic signals and pedestrian crossings	*			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
	Streetlighting	Respond within 2 hours to reported traffic accidents involving lighting columns or other lighting emergencies					<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
		Develop and deliver a programme of column repair and replacement in order to maintain the street lighting asset and reduce the risk of column failure.	*			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Safety Fencing	Vehicle restraint systems, Guardrail,	Assess safety fences when they are knocked down or damaged and repair, replace or remove as required.				<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Trees and Soft Landscape	Highway verge	Carry out annual programme of grass cutting to maintain safe visibility at junctions and visibility splays				<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
	Trees	Inspect highways trees and prioritise repairs to safety defects in accordance with the Tree Inspection Policy				<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

## 6.0 Stakeholder and Community Engagement

### Who are the Stakeholders?

There are many groups of people, or organisations, that have a vested interest in the Council's highway network and how it is maintained. The groups that are Stakeholders and therefore part of the conversation are wide ranging and consist of, but not limited to:

<ul style="list-style-type: none"><li>• Devon residents</li><li>• County Councillors</li><li>• District Councils</li><li>• Parish &amp; Town Councils</li><li>• DCC Staff</li><li>• Contractor staff</li><li>• Customer Service Centre (CSC) Staff</li><li>• Emergency Services</li><li>• Bus Companies / operators</li><li>• Holiday Makers (passing through the county)</li><li>• Devon businesses</li><li>• School Transport</li><li>• Dartmoor / Exmoor National Park</li><li>• Utility Companies</li><li>• RAC / AA</li><li>• School Transport</li></ul>	<ul style="list-style-type: none"><li>• Freight Groups</li><li>• Motorcycle Action Group</li><li>• Local Access Forum</li><li>• Countryside Landowners Association</li><li>• Living Options</li><li>• National Farmers Union</li><li>• Cyclists Touring Club (CTC)</li><li>• Health Authorities</li><li>• Ramblers Association</li><li>• Local Access Forum</li><li>• Devon Senior Voice</li><li>• Neighbouring Authorities</li><li>• Schools</li><li>• Highways England</li><li>• Sustrans</li></ul>
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### Why Communicate?

Explaining **what** we do, **why** we do it and **when** we will do it, is key to ensure that the people affected by our decisions are kept informed. Primarily we need to engage with our stakeholders so that we can understand specific needs, which helps us understand certain priorities and therefore inform the planning process for highway maintenance works. Following that, keeping people informed of the work we plan to undertake is essential to ensure everyone understands what is happening, along with mitigating any potential impacts. Communicating these messages, both internally and externally, is essential for the effectiveness our business and the business of our stakeholders.

### Our aims

We aim to communicate our policies, plans, priorities and programmes of work effectively, consistently and at the most suitable time focussing on digital by design principles. We will do this through a variety of internal and external channels to ensure our messages are clear and consistently delivered by the team.

We will evidence the positive work being carried out to maintain and improve the council's network.

We will engage with our stakeholders, through a variety of channels, to not only provide information but also to actively seek feedback to plan for the future. We will also demonstrate that we have listened to the feedback and detail the subsequent action taken.

Below is a table that sets out some of the ways we currently communicate with our stakeholders, along with how we would like to improve.

What we are doing already	How we would like to improve
<p>Elected Members – County Councillors</p> <p>Councillors are encouraged to regularly engage with their Neighbourhood Highway Officer (NHO) who are a first point of contact. The NHO will be able to respond or source appropriate contacts for most issues. Whilst there are regular opportunities for Members to contact team members on specific highway matters, there are in addition some formal reporting arrangements outlined below.</p>	<p>Build on the existing communication with Asset Management Officers joining Neighbourhood colleagues in updating Councillors on locality issues.</p>
<p>Elected Members – Local Councils</p> <p>Parish and Town Councils are also encouraged to communicate with their local NHO as a first point of contact. There are also some additional formal communications maintained. Each year, there is an <i>Annual Town and Parish Council Conference</i> arranged. The agenda topics are largely derived from current issues and opportunities available for collaborative work. A bi-annual newsletter '<i>Roadmap</i>' is also compiled and issued to all Town and Parish Councils.</p> <p>The 'doing what matters' planned work pilot has shown the value of structured conversations with parish councils to determine which routes and repairs are important to them. This is being developed further with <b>Local asset capital programmes</b></p>	<p>Build on the current approach increasing awareness and knowledge of the Asset Management Strategy and capturing local intelligence in the evolving forward programme.</p>
<p>Performance Dashboard Report.</p> <p>There is a standing item for Scrutiny Committee to receive and discuss a Highways Performance Dashboard Report. The intention of this report is to provide Members with an overview of the performance of Devon Highways. The report can vary in coverage from time to time to focus on topical areas of interest but typically features progress updates on the following areas: Winter service; Reactive works including</p>	<p>Continue this approach regularly seeking feedback from Scrutiny on topical areas.</p>

<p>potholes and drainage cleaning; Delivery of planned works; Management of Defects; Term Contractor performance; and Staffing Issues.</p>	
<p>Annual Progress Report</p> <p>Each year a report is considered by Cabinet which reviews the progress of Highway Maintenance activity in the preceding 12 months and considers any changes in strategic approach and approves plans and programmes for the forthcoming year.</p>	<p>Continue this approach with the view to strengthening stakeholder knowledge regarding the asset management approach to managing highways in Devon.</p>
<p>Customer Reporting</p> <p>Other stakeholder communication is largely managed through web-based information and service provision.</p> <p>There are services for reporting defects, planned work programmes and detailed information on policies and current levels of service.</p>	<p>An important consideration is what our customers think, and how we might improve our service. We want to regularly review feedback and update our information accordingly.</p>
<p>National Highway and Transport (NHT) Survey</p> <p>Every year we participate in the NHT survey (<a href="http://www.nhtsurvey.org">www.nhtsurvey.org</a>) which asks highway users to rate the service they receive across multiple areas. We use the results of this survey to assess where there may be areas of improvement required to offer better satisfaction to our residents and stakeholders. We also use the results as a benchmarking tool with other authorities that participate in the survey.</p> <p>In 2021, 90 of the 140 key indicators used were rated at above average.</p>	<p>The survey has highlighted that the condition of the road surface is an area of key importance for our residents, yet it is an area of least satisfaction, despite other data indicating an improvement. This highlights a need to better communicate the work we are doing and the</p>

	results that have been achieved.
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Further Information

Alongside this Strategy we are also developing a Communication Strategy that sets out certain criteria on how we want to better communicate with our stakeholders. Details of this can be found [link](#) here.

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## 7.0 Funding and investment strategy

Funding for Devon County Council's Highways and Traffic Management service is either a **Capital** or a **Revenue** allocation.

- **Capital** - reflects investment in an asset and is defined in the Accounting Code of Practice as "expenditure which adds to, and not merely maintains, the value of a fixed asset."
- **Revenue** - covers day to day expenditure and income, including works which maintain, rather than increase, the value of a fixed asset.

### How we allocate the funding

#### Revenue

The overall Highway and Traffic Management Service revenue budgets have been through a rigorous 'zero based' budgeting review in recent years in order to drive out the required efficiencies from budgets that had previously been allocated on a historical basis. Where possible budgets are now based on need with the overall strategy focused on maintaining statutory and safety related level of service over the long term. Once the overall total has been determined, individual budget line allocations are calculated, based on the Highway Asset Management Plan and taking account of factors such as specific savings, pressures, the condition of the asset and maintenance priorities. For weather dependent activities such as winter maintenance and emergencies, budget allocations are based on an average of the previous 5 years expenditure. The safety related functions that support the statutory duties such as safety defect repairs and winter service take priority over other workstreams such as preventative cyclic maintenance. Due to the pressure on revenue budgets across the wider Authority there is insufficient funding to carry out adequate preventative maintenance, this leads to an increase in pressure on the capital budget.

#### Capital

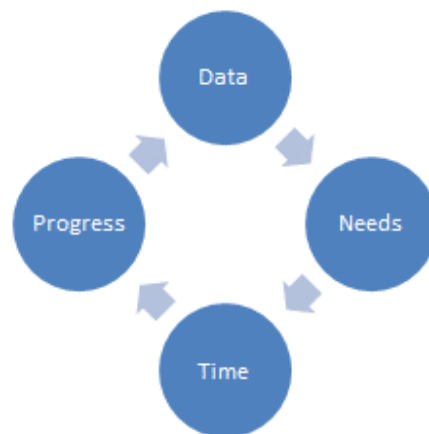
The Highways and Traffic Management capital budget is set by adopting an asset-based approach. This involves a systematic strategic review looking at:

- Highway condition data and other intelligence, such as customer feedback,
- Spending requirements for each asset group, such as bridges, main road network, drainage, street lighting etc., are then determined, and
- Taking a long-term approach to provide optimal use of the funding available.

Progress against asset condition targets is annually reviewed and will inform the next year of funding allocation.

### Cross Asset Prioritisation

In addition to identifying priorities within asset group programmes it is vital that we consider priorities between the various competing group demands also. The principles we use to do this are listed below:



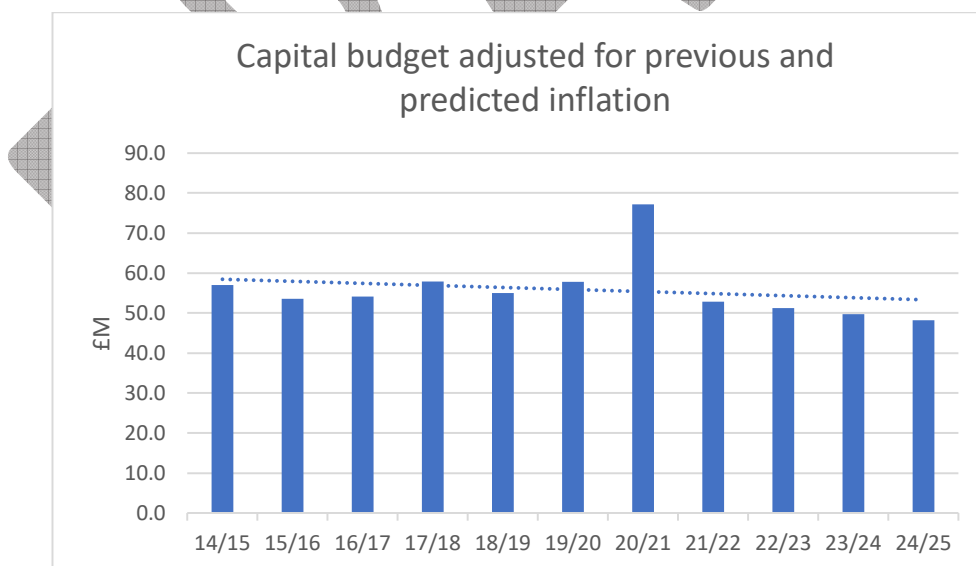
- historical funding
- asset condition and valuation
- performance and benchmarking
- alignment with Strategic Plan
- safety/critical needs and minimum levels of service
- establishing target outcomes
- consideration of risk within and between asset groups
- the need to react and respond (often in-year) to safety critical events
- to incentivise good practice solutions

We do this by undertaking an annual workshop with senior managers and asset group leads. Whilst annual funding is reducing, the impact and consequence of reduced funding will be identified and will inform the proposed priorities to be approved by the Council's Cabinet.

#### Future funding allocations and scenario planning.

The three-year funding allocation identified in the 2021 budget and spending review enables us to plan with a degree of certainty our capital strategy for the next three years. The intention is to continue to invest in each asset group to achieve, as far as is practicable, a managed decline. There will be a continuing theme of utilising our road and footway hierarchy to maintain the assets on the sections of our network that are most well used.

However, as the graph below illustrates it is anticipated that a reduction in investment will lead to a return to poorer condition of all highway assets. For example, scenario modelling predicts that there is a £20m annual shortfall in funding to maintain roads in a steady state and the cost of backlog of repairs to C and Unclassified roads will increase by a further £180m by 2030.



## 8.0 Approach to minor road network

The reduced funding available for the next two years will have a significant impact on the maintenance and condition of minor roads. The asset management approach will rightly focus the funding decisions towards main roads to hold these critically important community connections in a steady condition.

The inevitable decline of the minor network will continue to see safety critical intervention to meet our statutory duty. In order to reduce the growth of safety related defects, some funding will be directed to non-critical service defects, where early action can be justified to protect the asset and assist in managing our safety-critical resource. This includes year-round operation of four Dragon Patch teams and a countywide resource to address minor patching defects. Where this funding allows, we may also look to undertake preventive work on roads that are in reasonable condition and serve a strategic function to communities. This will extend the life of these roads for a lower cost, allowing us to maximize the amount of work we can undertake.

The approach is being developed further. A new framework contract has been developed to provide road recycling repair options and the service will be undertaking some testing of value and quality of this innovative approach. In addition, the more conventional current patching approach is being reviewed to establish whether a more cost-effective, fit for purpose, specification can help stretch the limited funding further on minor roads.

We will continue to seek opportunities to review and downgrade the maintenance category of roads where changing use or alternative options exist. We will also continue to engage with Parish and Town Councils and communities to identify funding or volunteer resources to address local needs that are not a priority to be delivered in the annual programme.

## 9.0 Risk Management

Identifying and managing risk is a central theme of the 'Well-managed Highway Infrastructure: A Code of Practice'. The Council uses a risk-based approach extensively and we follow the agreed methodology for



considering, reporting and managing risk, which is about being risk aware and not risk averse. The focus of this section will be consideration of managing risk in the context of *successful delivery of this strategy*. Consequently, some of the items identified will also feature on other registers such as term contract management and overall service level and corporate risks.

Our corporate approach to risk management is specifically focused on our organisation and looks to identify events with the potential to stop us from achieving our objectives. Once identified, it is important that we take steps to try and stop them happening or reduce their impact if they do. We identify and manage risks utilising risk registers at a corporate and service level, as well as at an operational and project level.

Risk management within the Highway Authority supports the delivery of the organisational objectives. Our understanding and management of risks informs and supports our approach to key decisions regarding performance, investment, and implementation of works programmes. The process is regularly reviewed but is also agile enough to allow our approach to managing risk to change as risk levels change. The following key risks associated with the successful delivery of this Highway Infrastructure Asset Management Plan have been identified and are actively managed using a risk register:

- Planning Risks
  - Funding and investment,
  - Extreme weather events,
  - Ongoing impacts of the COVID -19 pandemic, and
  - Effects of inflation on budgets.
- Management Risks
  - Failure to communicate the HIAMP effectively,
  - Competence of staff, and
  - Resources.
- Delivery Risks
  - Quality of programme development and delivery, and
  - Contractor resources.
- Asset Risks
  - Performance and loss of service common to all assets, and
  - Extreme weather events.

### [Risk-Based Approach](#)

There are no prescriptive or minimum standards in the Code. Adoption of a risk-based approach, taking account of the advice in the Code, will enable authorities to establish and implement levels of service appropriate to their circumstances.

The risk management process is based on ISO 31000 and is underpinned by five stages, with stages 1. and 5. continuing throughout the process with the potential to impact on all stages:

1. Communication and Consultation
2. Establish Risk Context
3. Risk Assessment
  - a. Identify Risks
  - b. Analysis

- c. Evaluate Risks
- 4. Manage Risks
- 5. Monitoring and Review

Regular training is given to staff undertaking roles in asset management to maintain their competency and ensure the Council continues to prepare, implement, and review its approach to asset management efficiently and effectively.

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## 10.0 Performance Framework

A performance management framework is fundamental to support the implementation of an asset management strategy and can be used to measure performance and continuous improvement in general.

The Asset Management Plan contains the key performance indicators that are used for measuring the service level across the seven main components of the asset that form our Local Roads: Carriageways,

Footways and Cycleways, Structures, Public Rights of Way and Shared Community Trails, Traffic Signals and Street Lighting, Safety Fencing, and Trees and Soft Landscape.

At the strategic level, we have adopted an approach to performance management that is closely aligned to the Department for Transport's Incentive Fund against which we have been self-assessing since it was established in 2015. We have selected eight key measures from the Incentive Fund questionnaire to create a performance management tool that follows national guidance and identifies: the model evidence required to be successful, our current status and priority actions.

The tool uses three shades of green to rate our status:

Colour	Rating	Attainment of Measure	Model Evidence
Light Green	1	Measure has not been met	Model evidence is not in place
Mid-Green	2	Measure has been met	Most model evidence is in place, and/or is in place and could be strengthened
Dark Green	3	Measure has been met	Strong model evidence is in place

The eight key measures that are assessed are:

1. The asset management approach has been communicated and is understood.
2. The authority has the competence and training required to deliver highway asset management effectively.
3. There is an asset investment strategy linked to funding and levels of service.
4. Levels of service are set, and performance reviewed.
5. The risks associated with delivering the Asset Management approach have been identified and are monitored.
6. Works are identified planned and programmed effectively.
7. Our plans and processes are fully embedded to ensure least whole life carbon generation when selecting suitable materials/processes.
8. The asset approach is reviewed regularly.

Our approach to performance management is reviewed regularly as part of the ongoing reviews of our asset approach.

