

Highway Infrastructure Asset Management Policy and Strategy

Report of the Chief Officer for Highways, Infrastructure Development and Waste

Please note that the following recommendations are subject to consideration and determination by the Cabinet (and confirmation under the provisions of the Council's Constitution) before taking effect.

Recommendation:

- (a) that the revised Highway Infrastructure Asset Management Policy and Strategy are adopted;
- (b) that the Chief Officer for Highways, Infrastructure Development and Waste, in consultation with the Cabinet Member for Highways Management, be given delegated authority to make minor amendments to the documents and continue the development of the Highway Infrastructure Asset Management Plan.

1. Summary

The Highway Infrastructure Asset Management Plan (HIAMP) is a suite of documents that layout the Authority's policy, strategy and plan for the management and maintenance of all highway assets.

The previous plan was approved by Cabinet in 2016. These documents have been refreshed to reflect the changes in government guidance and to align to the recently published Strategic Plan 'Best Place'.

Adoption of the revised Policy and Strategy will allow the detailed Plan document to be developed.

2. Introduction

Infrastructure asset management planning is an established and widely recommended approach in highway management and other sectors both in the UK and internationally. Asset management has been widely accepted by central and local government as a means to deliver a more efficient and effective approach to the maintenance of existing infrastructure.

It enables best use of limited resources by taking a long-term view of how highways are managed, focusing on outcomes by ensuring that funds are spent on activities that prevent, as far as possible, expensive short-term repairs. This makes the best use of public money whilst minimising the risk involved in investing in highway maintenance.

The new Policy and accompanying Strategy have been developed to ensure the highway network and associated assets are maintained in an appropriate way to meet the challenges identified in the new Strategic Plan 'Best Place'.

This can be achieved through the adoption of defined levels of service for different highway assets, the use of data and information to establish maintenance needs, matching maintenance needs to available funding and prioritising investment to get the best overall network outcomes. In addition, asset management planning will support the case for funding, enable effective communication with interested parties, and enable a greater understanding of the contribution highway infrastructure assets make to the economic prosperity of our local communities.

3. Proposal

In 2013 guidance for Highway Infrastructure Asset Management was published by Highways Maintenance Efficiency Programme (HMEP) in association with the UK Roads Liaison Group and with the sponsorship of the Department for Transport (DfT).

This document promotes a joined-up approach to determining how all highway infrastructure assets such as roads, bridges, streetlights etc. are managed and lays out the case for Highway Authorities to produce a HIAMP. The guidance recommends the following 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.

This hierarchy of documents should be read and referenced as a framework in order to understand the background and reasoning for Devon's approach to asset management and how this will be delivered by the Highways and Traffic Management Service.

To encourage use of the guidance published by HMPE and 'reward' authorities that demonstrate they are delivering value for money, the DfT link approximately 10% of their annual capital funding budget to the maturity of the plans produced by highway authorities. To date DCC have always met the highest level of funding; this has meant nearly £6m additional funding for 2022/23.

Since approval of the current Asset Management Policy, Strategy and Plan by Cabinet in November 2016 a number of significant changes have occurred that need

to be considered:

- The revised County Council strategic plan, 'Best Place' was published in November 2021.
- A revised Code of Practice 'Well Managed Highway Infrastructure' was issued in 2018. The revised code outlines a risk-based approach for highway infrastructure maintenance.
- The DfT have confirmed a three-year capital settlement (through to 2024/25) based on a funding scenario that will see a likely deterioration in the condition of highway assets.
- Government policy has become much more focused on the carbon agenda. A number of key documents such as Bus Back Better, Gear Change and Decarbonising Transport have been published since 2020.
- The highway service has improved engagement with communities to support the identification of local priorities.
- The highway service has continued to develop its highway systems to enable customers to self-serve and report issues on-line.

All of the above have contributed to shaping the highway service and to driving a review and update of highway asset management planning.

The Highway Infrastructure Asset Management Policy outlines the links between the statutory duty to maintain the highway network and the opportunity to support the priorities of the new Strategic Plan 'Best Place'.

The Highway Infrastructure Asset Management Strategy explains how the policy will be achieved and how long-term objectives will be delivered. The Strategy outlines the Devon County Council's Asset Management Framework and provides details of the components which make up the core asset management planning tools. These have been developed by following Highways Maintenance Efficiency Programme national guidance.

The framework includes

- Risk Management
- Levels of Service and
- Performance Management

Following the adoption of the Policy and Strategy the Highway Infrastructure Asset Management Plan will be drafted to record and communicate the detailed approach to the management of assets over a period of time. This Plan will be brought to Cabinet later this year.

The Highway Infrastructure Asset Management Policy and Strategy are provided in Annexes 1 and 2 respectively.

4. Options/Alternatives

Failure to refresh the existing Asset Management Framework will impact the ability of the Service to contribute to the objectives of the Strategic Plan and likely to lead to a reduction in DfT capital funding.

5. Consultations

5.1 National Highways and Transport Public Satisfaction Survey

The results of the 2021 National Highways and Transport (NHT) Public Satisfaction Survey reflect public perception of performance, importance and the desire for various activities to be funded. Analysis shows that the condition of the highway network and the speed and quality of repairs are important to the public.

A summary of the NHT highway maintenance benchmarking indicator results illustrating public satisfaction levels and importance in the services delivered show Devon to be above the average against other regional and peer group authorities.

The summary of the survey undertaken in June 2021 gives overall a comforting position and shows no significant change to the previous year's survey, however it did highlight areas in highway condition where the public are showing a satisfaction level slightly under the national average.

The complete survey can be seen at [2021 Survey Public Reports \(nhtnetwork.co.uk\)](https://nhtnetwork.co.uk/2021-Survey-Public-Reports)

5.2 Corporate Infrastructure and Regulatory Services Scrutiny Committee

A Standing Overview Group of the Corporate, Infrastructure and Regulatory Services Scrutiny was held on the 3 March 2022 to consider the draft Policy and Strategy and inviting members to be involved in helping to shape the key performance measures used to monitor the levels of service set out in the Strategy. The notes of the Overview Group are available at [SOG notes.pdf \(devon.gov.uk\)](https://devon.gov.uk/SOG%20notes.pdf). The Overview Group recommendations were considered by the full Corporate, Infrastructure and Regulatory Services Scrutiny Committee on 24 March.

The Scrutiny Committee resolved “that the report be accepted as an accurate record of the meeting held and that the recommendations contained therein be endorsed and commended to Cabinet, namely:

- (a) repair and maintenance of our road networks be underpinned by a positive and proactive approach and efforts to be made to implement this mindset into the working practices of DCC staff and contractors;
- (b) the Community Road Warden Scheme and the Snow Warden Scheme be continued and expanded;
- (c) annual work programmes be produced to cover integrated schemes and additional detail is included where these include drainage repair;
- (d) graffiti be explicitly recognised in the Plan as a notable problem and innovative solutions to graffiti removal be investigated; and

- (e) further exploration of local council involvement in highway maintenance is undertaken, to include closer relationships between local councils and the County Council.”

The draft documents have been updated to incorporate these recommendations and these will be further developed in the review of the Highway Infrastructure Asset Management Plan and annexes.

6. Discussion

6.1 Levels of Service

Strategic levels of service are identified in the Highway Infrastructure Asset Strategy (Annex 2). These inform the development of specific levels of service for each asset group. Defining levels of service enables us to meet our objective of managing demand, having considered current and future capability to deliver within the resources available.

The high level aims for levels of service for the highway asset is that it:

- Is **safe and serviceable** for people to use
- Enables **access** to and from communities for people, goods and services
- Supports and promotes **active and healthy** lifestyles
- Promotes the development and maintenance of **sustainable communities**
- Contributes to wider **economic growth**
- Contributes to wider **environmental management**
- Makes **effective and efficient** use of our local resources
- Is **maintained** appropriately to retain its value and condition into the future.

The specific levels of service for each asset group are listed in Section 3.1 of the Strategy in Annex 2.

6.2 Performance Framework

Performance measures can be used to monitor progress against levels of service and to track actual performance. The 8 key measures are identified in section 10.0 of the Strategy document in Annex 2. It is intended that these will be reviewed annually, and progress reported to Councillors via the Corporate Infrastructure and Regulatory Services Scrutiny Committee.

7. Financial Considerations

A well-defined asset management approach enables the County Council to demonstrate it has a clear methodology for valuing highway infrastructure assets and determining their condition.

Establishing maintenance needs illustrates that there is a clear gap between the capital maintenance funding provided by DfT and the funding needed to maintain the current asset condition.

The result is that whilst higher priority assets can be maintained in an acceptable condition this is not possible for lower priority assets. Therefore, the condition of

some lower priority assets will deteriorate in future years. For such assets, like some minor roads, only safety related reactive interventions will take place.

It is unavoidable that deteriorating condition will lead to an increase in revenue funded reactive repairs and increased future planned maintenance costs. In the long term there will also be an impact on the selection of journey routes and the reliability of journey times.

By adopting good asset management practice the above impacts will be minimised.

8. Legal Considerations

The documents have been developed to ensure the Council continues to meet its statutory obligations as the Highway Authority and the relevant highway legislation including the Highways Act 1980 and the Traffic Management Act 2004.

9. Environmental Impact Considerations (Including Climate Change)

The maintenance of the highway network and its use by the public has historically generated a significant proportion of the County Council's carbon emissions. Since the adoption of the previous Plan in 2016 the importance of reducing carbon emissions globally has been recognised and has become a key focus for the Service and wider organisation.

The Highways Infrastructure Asset Management Strategy includes a section on risk management which addresses the impact of climate change and how the highway service needs to adapt to ensure the resilience of the highway network. Environmental impacts are also considered in the development of the strategic levels of service and the specific asset group levels of service (Appendix 1 Asset Strategy)

The review of these documents provides an opportunity to reset the Service priorities and approach, ensuring everything is being done to minimise the environmental impact of maintenance operations.

10. Equality Considerations

Where relevant to the decision, the Equality Act 2010 Public Sector Equality Duty requires decision makers to give due regard to the need to:

- eliminate discrimination, harassment, victimisation and any other prohibited conduct;
- advance equality by encouraging participation, removing disadvantage, taking account of disabilities and meeting people's needs; and
- foster good relations between people by tackling prejudice and promoting understanding.

taking account of age, disability, race/ethnicity (includes Gypsies and Travellers), gender and gender identity, religion and belief, sexual orientation, pregnant women/new and breastfeeding mothers, marriage/civil partnership status in coming to a

decision, a decision maker may also consider other relevant factors such as caring responsibilities, rural isolation or socio-economic disadvantage.

This may be achieved, for example, through completing a full Equality Impact Needs Assessment/Impact Assessment or other form of options/project management appraisal that achieves the same objective.

In progressing this review, an Impact Assessment has been prepared which has been circulated separately to Cabinet Councillors and is also available alongside this Report on the Council's website at: [Highway Infrastructure Strategy and Policy - Impact Assessment](#) which Councillors will need to consider for the purposes of this item.

11. Risk Management Considerations

Successful implementation of the Devon Asset Management Framework requires an understanding of the impact and consequences of strategic risks. Analysing risks provides information on the effect events will have on the desired performance of an asset.

A risk register has been developed to evaluate high level strategic risks and is linked as a supporting document to section 9.0 of the Strategy in Annex 2. It is intended that the register will be regularly reviewed with particular regard to managing and responding to threats and agreeing mitigation measures with a view to reducing the impact of the risks over time.

12. Public Health Impact

The Framework recognises the focus on the physical and mental health of our communities flows through the Strategic Plan.

The cumulative reduction in budgets could have an impact on public health with reduced maintenance affecting sustainable travel alternatives, and potentially more injuries resulting from crashes, trips and falls, however the recommended approach minimises this risk, by targeting investment.

13. Conclusions and Reasons for Recommendations

The Highways Infrastructure Asset Management documents have been revised to reflect the latest industry guidance and national code of practice. Adopting the revised plans will help enable the Council to maximise its grant funding allocations from government for highways maintenance and ensure the Council is managing its highway asset in an effective and efficient manner.

Enabling the Chief Officer for Highways, Infrastructure Development and Waste, in consultation with the Cabinet Member for Highway Management, to make minor amendments to the documents will allow for the flexibility needed to ensure it can continue to develop. The framework of documents has been developed as living documents recognising the asset management journey the Council is on and the need to continue to develop the plan as well as to adapt to changes in legislation and

guidance.

Meg Booth

Chief Officer for Highways, Infrastructure Development and Waste

Electoral Divisions: All

Cabinet Member for Highway Management: Councillor Stuart Hughes

Local Government Act 1972: List of Background Papers

Contact for Enquiries: Joe Deasy

Tel No: 01392 383000 Room: County Hall, Exeter

Background Paper	Date	File Reference
-------------------------	-------------	-----------------------

Nil		
-----	--	--

Highway Infrastructure Asset Management Policy and Strategy - Final		
---	--	--

Annex 1 to HIW/22/18 - Highway Infrastructure Asset Management Policy

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 hundreds 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 as required by the Highways Act 1980 and to help the Council tackle the priorities identified in the Strategic Plan.

Respond to the Climate Emergency

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.

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.

Be ambitious for children and young people

Work together to ensure all children are safe, healthy and can thrive with opportunities to fulfil their potential.

Support sustainable economic recovery

Help Devon achieve inclusive economic recovery and sustainable growth, ensure more people can take advantage of opportunities, and invest carefully to improve infrastructure

Tackle poverty and inequality

Make Devon a fairer place, address poverty, health and other inequalities, and ensure support for those people and families struggling most.

Improve health and wellbeing

Help people to be healthier and more resilient, ensure everyone gets the care they need, and support people to live their lives well.

Help communities be safe, connected and resilient

Support all our communities to be safer, better connected and more resilient with a focus on communities at greatest risk or in greatest need.

To achieve these aims we will

- Continue the development of a carbon calculator tool to identify opportunities and priorities for reducing the carbon emissions associated with the maintenance of all highway assets.
- 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 2022 - 2025



Table of Contents

<u>Highway Infrastructure Asset Management Strategy</u>	.....
<u>1.0 Introduction</u>	.....	1
<u>The Strategy</u>	.....	1
<u>2.0 Developing the Council's vision for Highway Infrastructure Assets</u>	.....	2
<u>Introduction</u>	.....	2
<u>Highway Asset Groups</u>	.....	2
<u>Factors influencing the direction of travel</u>	.....	3
<u>The National Perspective</u>	.....	4
<u>Funding</u>	.....	7
<u>Future Demand</u>	.....	7
<u>Collaboration and partnership working</u>	.....	7
<u>Community Self-Help</u>	.....	8
<u>Collaboration with highway industry partners</u>	.....	8
<u>3.0 Highway Infrastructure Asset Management Framework</u>	.....	9
<u>4.0 Summary of Review Outcomes</u>	.....	10
<u>Asset Management Maturity Review – January 2021- WSP</u>	.....	10
<u>Asset Management Review- Data and Systems May 2021. DCC/WSP</u>	.....	10
<u>Future Highways Research Group</u>	.....	11
<u>Council Scrutiny Review</u>	.....	13
<u>5.0 Levels of Service</u>	.....	15
<u>What are Levels of Service</u>	.....	15
<u>Establishing Levels of Service</u>	.....	15
<u>DCC Levels of Service Statements</u>	.....	15
<u>Responding to the climate emergency</u>	.....	15
<u>Be ambitious for children and young people</u>	.....	15
<u>Support sustainable economic recovery</u>	.....	15
<u>Tackle poverty and inequality</u>	.....	15
<u>Improve health and wellbeing</u>	.....	16
<u>Help communities to be safe, connected, and resilient</u>	.....	16
<u>Our Assets</u>	.....	16
<u>Carriageway including Drainage</u>	.....	16
<u>Footways and Cycleways</u>	.....	16
<u>Structures</u>	.....	16

	<u>Public Rights of Way</u>	17
	<u>Traffic Signals and Street Lighting</u>	17
	<u>Fencing and Barriers</u>	17
	<u>Trees and Soft Landscape</u>	17
	<u>Decision Making and Funding Priorities</u>	18
	<u>Achieving Levels of Service</u>	18
<u>6.0</u>	<u>Stakeholder and Community Engagement</u>	19
	<u>Who are the Stakeholders?</u>	19
	<u>Why Communicate?</u>	19
	<u>Our Aims</u>	19
	<u>Further Information</u>	21
<u>7.0</u>	<u>Funding and Investment Strategy</u>	22
	<u>How we Allocate the Funding</u>	22
	<u>Revenue</u>	22
	<u>Capital</u>	22
	<u>Cross Asset Prioritisation</u>	23
	<u>Future funding allocations and scenario planning</u>	23
<u>8.0</u>	<u>Approach to Minor Road Network</u>	26
<u>9.0</u>	<u>Risk Management</u>	27
	<u>Risk-Based Approach</u>	28
<u>10.0</u>	<u>Performance Framework</u>	29
	<u>Appendix A: Highway Asset Group Change in Condition Graphs and Diagrams</u>	30
	<u>Appendix B: Highway Infrastructure Asset Management Framework Diagrams</u>	33
	<u>Appendix C: How Levels of Service will be achieved</u>	35

1.0 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
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 buddle holes and easements	180,000 Gullies
Safety Fencing	Vehicle restraint systems, guard rails, fences	3,000 km

Highway Lighting	Columns, illuminated signs, etc	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	1617
Street Furniture	Signs and other street furniture	100,000 items
Land	Highway verge	17,000 km

Graphs and tables illustrating the change in condition of the various asset groups can be found in Appendix A. This will also be assessed and forecast in more detail in the Highway Infrastructure Asset Management Plan.

Factors influencing the direction of travel

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

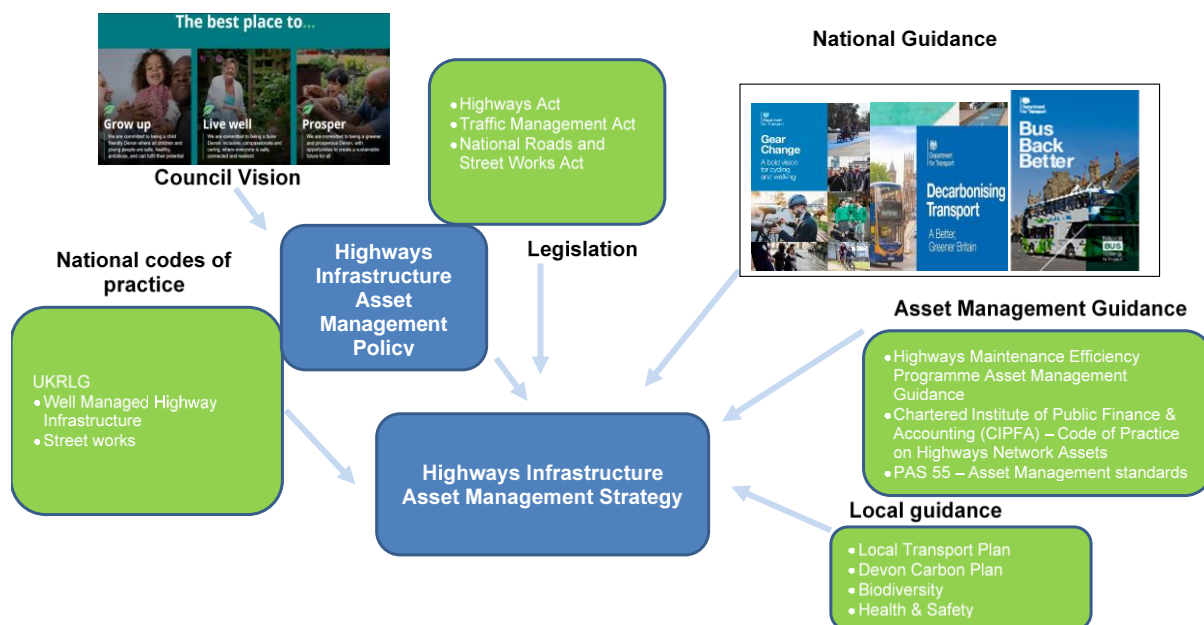


Fig.1 Factors influencing strategic approach

It is important that we identify how we will contribute to the Council's Strategic Plan 'Best Place'. The Highway Infrastructure Asset Management Policy outlines the priorities identified in the Strategic Plan which are listed below.

Respond 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 be safe, connected and resilient

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 objectives of this Strategy are to:

Continue the development of a carbon calculator tool to identify opportunities and priorities for reducing the carbon emissions associated with the maintenance of all highway assets.

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.

The National Perspective

Since the last Highway Infrastructure Asset Management Policy, Strategy and Plan were drafted in 2016 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 Council account for a significant proportion of the total carbon emissions and provide an opportunity to meet the challenge.

The Council are investigating, considering, and embedding new ways of working that help decarbonise the designing and commissioning of highways activities. 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.

DCC 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 the Council 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 the service will need to reduce the overall carbon footprint of highway maintenance. This goal will only be achieved by selecting treatments, materials and operations 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 strategy 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 the Council manages 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 27th 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 being the most affected.

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.

There is further detail on the national perspective of future funding challenges in chapter 7.0 Funding and investment strategy.

Considering funding from the Devon perspective, the Council's 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, the Council understand that funding on that scale is not realistic. A more realistic ambition is to manage highway assets in their current condition. However, the modelling suggests the Council 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 expected. Further details on how this will be managed are provided in section 7.0 Funding and Investment Priorities within this 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 the Council's Park & Ride (including Park & Rail) sites, to ensure that these remain fit for purpose to support their services in coming years.

Future Demand

The population of Devon is increasing by 1% each year and whilst Devon will continue to encourage active travel, the population growth, together with new business and housing development will continue to add new highway assets to manage and maintain. This strategy will work closely with the Devon and Torbay Local Transport Plan 2011-2026 to address this.

Collaboration and partnership working

A key element of the Council's strategic approach is building capacity through collaboration and partnership working. There is much evidence of the benefit in identifying common goals with other organisations and sharing knowledge and other resources to enable outcomes.

Community Self-Help

The Highway Service has a well-developed community self-help approach which includes a Public Path Partnership (P3), and schemes for Community Road Warden and Snow Warden enabling community involvement in highway work activities, where the council's own resources are finite.

Although the Council has a legal responsibility to keep the highway safe for the user it does not have a legal responsibility to keep areas clean and tidy. Many people take pride in their communities and, especially in Devon, rely on tourism to boost the local economy. In order to assist communities with keeping public highway areas clean and tidy, and in response to feedback we have received, we are helping to enable communities and businesses to carry out minor works and promote planting on verges.

Collaboration with highway industry partners

The Council work closely with contractors, other highway authorities and industry to contribute and learn. For example, as part of the Devon County Council's drive to become carbon neutral by 2030 we are continuing to investigate, consider, and embed new ways of working that help reduce the carbon output when designing and commissioning highway maintenance operations. This involves developing carbon emissions calculations, taking a 'cradle to grave' approach from sourcing primary materials through to their disposal at the end of the project life. The Council is taking a lead role working with Exeter University and nationally with other authorities through the Future Highways Research Group to develop average carbon intensity for various key work activities using a Carbon Impact Assessment Tool. This information will then be used to establish the potential for utilising different treatments or to drive through procedures and processes that will reduce our carbon usage.

3.0 Highway Infrastructure Asset Management Framework

The Highway Infrastructure Asset Management framework is guided by national codes of practice and policies but is also heavily influenced by The Councils own policies and The Strategic Plan. How the various documents interact with the various levels of the framework is illustrated in Appendix B.

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 55001 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 DCC was average at 86% in comparison with the 12 other commissions. However, the DCC score was lower than 3 other large networks indicating there is room for improvement. 29 potential actions were identified. The highest priority areas were:

Undertake a review of how DCC 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 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 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 the Council 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 behaviour, 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: •The business model facilitates robust programming, productivity and workflow. •Client-side capacity is appropriate for the chosen model.
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.

Council Scrutiny Review

The Standing Overview Group of the Council's Corporate Infrastructure and Regulatory Services Scrutiny Committee meets regularly as an informal information sharing and member development session where issues are presented to the councillors to raise awareness and increase knowledge. The Standing Overview Group considers key updates and pertinent issues from across different services, with the aim of developing Members' knowledge, and bringing to the forefront any areas which may benefit from further scrutiny.

The group considered the emerging drafts of the revised Highway Infrastructure Asset Management Policy and Strategy on the 3rd of March 2022. The following recommendations were made to Cabinet, namely that:

- (a) repair and maintenance of our road networks be underpinned by a positive and proactive approach and efforts to be made to implement this mindset into the working practices of DCC staff and contractors;
- (b) the Community Road Warden Scheme and the Snow Warden Scheme be continued and expanded;
- (c) annual work programmes be produced to cover integrated schemes and additional detail is included where these include drainage repair;
- (d) graffiti be explicitly recognised in the Plan as a notable problem and innovative solutions to graffiti removal be investigated; and

(e) further exploration of local council involvement in highway maintenance is undertaken, to include closer relationships between local councils and the County Council.

The draft documents have been updated to incorporate these recommendations and these will be further developed in the review of the Highway Infrastructure Asset Management Plan and annexes.

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

The Council establish the Levels of Service with stakeholders, senior decision makers and the public. The Council 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.

DCC 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

The Council's approach to asset management that is outlined in this strategy embeds continuous improvement. Best practice, national, and international developments are taken into consideration. Details of continuous improvement, within the constraints of available budget, are developed in the Highway Infrastructure Asset Management Plan. Other assets may be added to the scope of this document as data or resources become available.

Carriageway including Drainage

The Council 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, drainage pipes, ditches and easements.

Footways and Cycleways

The Council has 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.

The Council maintain over 3,972km of footways.

Cycleways are either managed as part of the 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 resides 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.

The Council maintains 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.

The 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 Council maintains approximately 3,000 km 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 where DCC council is the landowner. The total length of fencing that Devon County Council is responsible for is unknown.

Trees and Soft Landscape

DCC 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.

Decision Making and Funding Priorities

Details around how The Council intends to prioritise the funding received for the various types of assets will be detailed further in the Highway Infrastructure Asset Management Plan. This will include, where feasible, affording a greater priority to assets that offer greater benefit to the wider strategic objectives of The Council, all of which will be based on funding levels and evidence of need.

Achieving Levels of Service

Appendix C contains a table showing how Levels of Service will be achieved, with measures against each asset and service along with an indication of how they relate to the Council's Levels of Service Statements.

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

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 the Council's decisions are kept informed. Primarily the Council needs to engage with stakeholders so that the specific needs are understood, which helps the Council understand certain priorities and therefore inform the planning process for highway maintenance works. Following that, keeping people informed of the work the Council plans 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

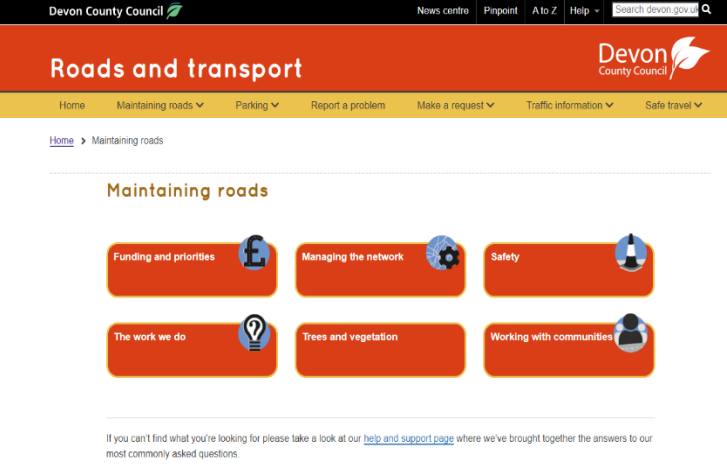
The Council aims to communicate the policies, plans, priorities and programmes of work effectively, consistently and at the most suitable time focusing on digital by design principles. This will be through a variety of internal and external channels to ensure the messages are clear and consistently delivered by the team.

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

The Council 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. The Council will also demonstrate that they 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 stakeholders, along with how improvements can be made.

What the Council are doing already	How the Council 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.</p> <p>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 Local asset capital programmes.</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 potholes and drainage cleaning; Delivery of planned works; Management of Defects; Term Contractor performance; and Staffing Issues.</p>	<p>Continue this approach regularly seeking feedback from Scrutiny on topical areas.</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 (www.nhtsurvey.org) 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 results that have been achieved.</p>

Further Information

Alongside this Strategy the Council are also developing a Communication Strategy that sets out certain criteria on how to better communicate with its stakeholders.

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

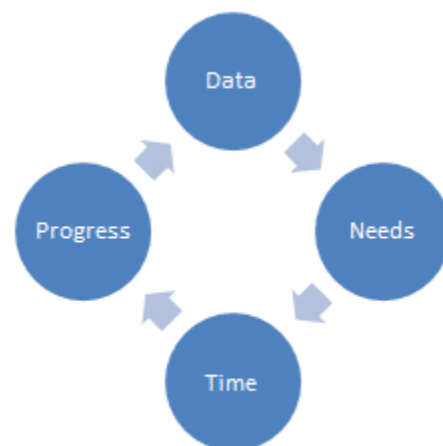
Revenue

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 the Council consider priorities between the various competing group demands also. The principles that are used to do this are listed below:

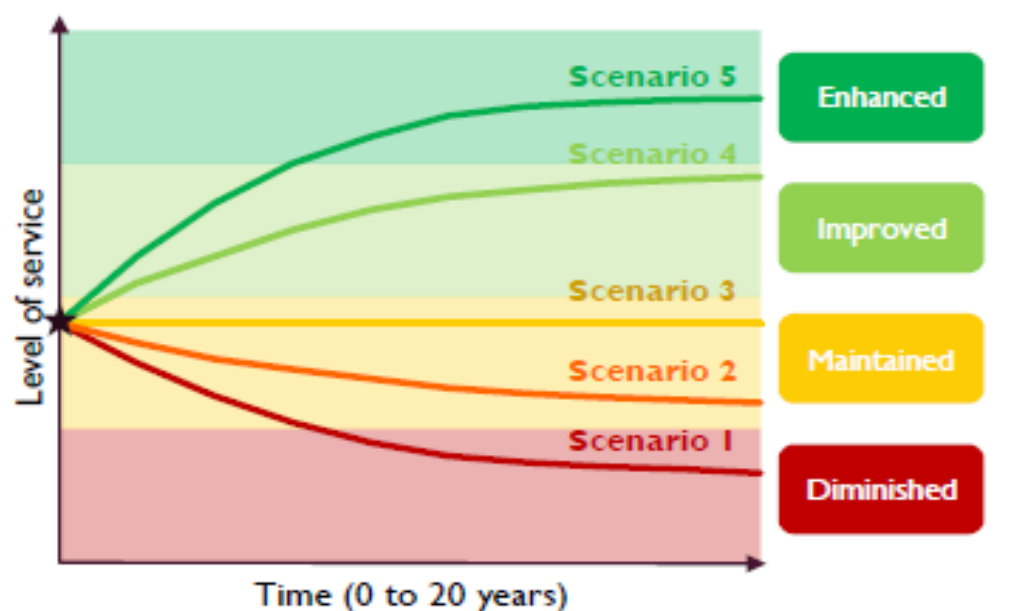
- historical funding
- asset condition and valuation
- performance and benchmarking
- alignment with Strategic Plan
- safety/critical needs and minimum levels of service
- establishing target outcomes
- consideration of risk within and between asset groups
- the need to react and respond (often in-year)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

These principles are defined 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

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.

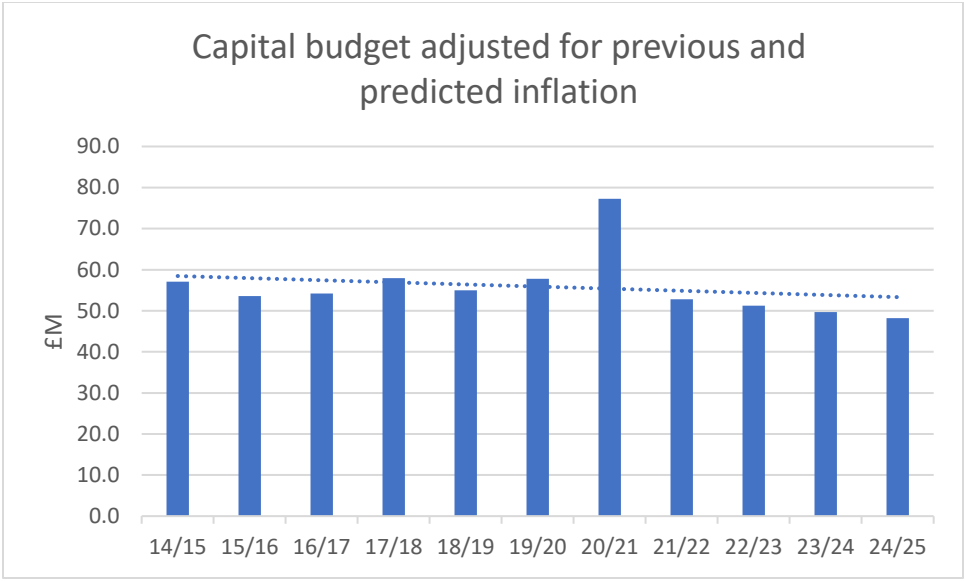


In the autumn budget of 2021, a funding allocation of £2.7bn over the next three years was announced which follows the worst possible scenario of a decline.

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 three-year funding allocation identified in the 2021 budget and spending review enables the Council plan with a degree of certainty its 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 the road and footway hierarchy to maintain the assets on the sections of the 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. As carriageways represent 87% of the asset value much of the decline will be evidenced in this asset group. 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 the 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, the Council 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 the Council to maximize the amount of work that can be undertake.

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.

The Council will continue to seek opportunities to review and downgrade the maintenance category of roads where changing use or alternative options exist. The Council 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 have followed 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.

The corporate approach to risk management is specifically focused on the organisation and looks to identify events with the potential to stop the Council from achieving the objectives. Once identified, it is important that steps are taken to try and stop them happening or reduce their impact if they do. The Council 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. The understanding and management of risks informs and supports the approach to key decisions regarding performance, investment, and implementation of works programmes. The process is regularly reviewed but is also agile enough to allow the approach to managing risk to change as risk levels change. The following key risks associated with the successful delivery of the 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 County has implemented a road hierarchy that is based on use and local factors rather than road classification. This includes our Resilient Road Network and Major Road Network (MRN), such as the South Devon Highway and North Devon Link Road, and informs where resources are directed.

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.

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 the 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, the Council 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. The Council 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, the current status and priority actions.

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

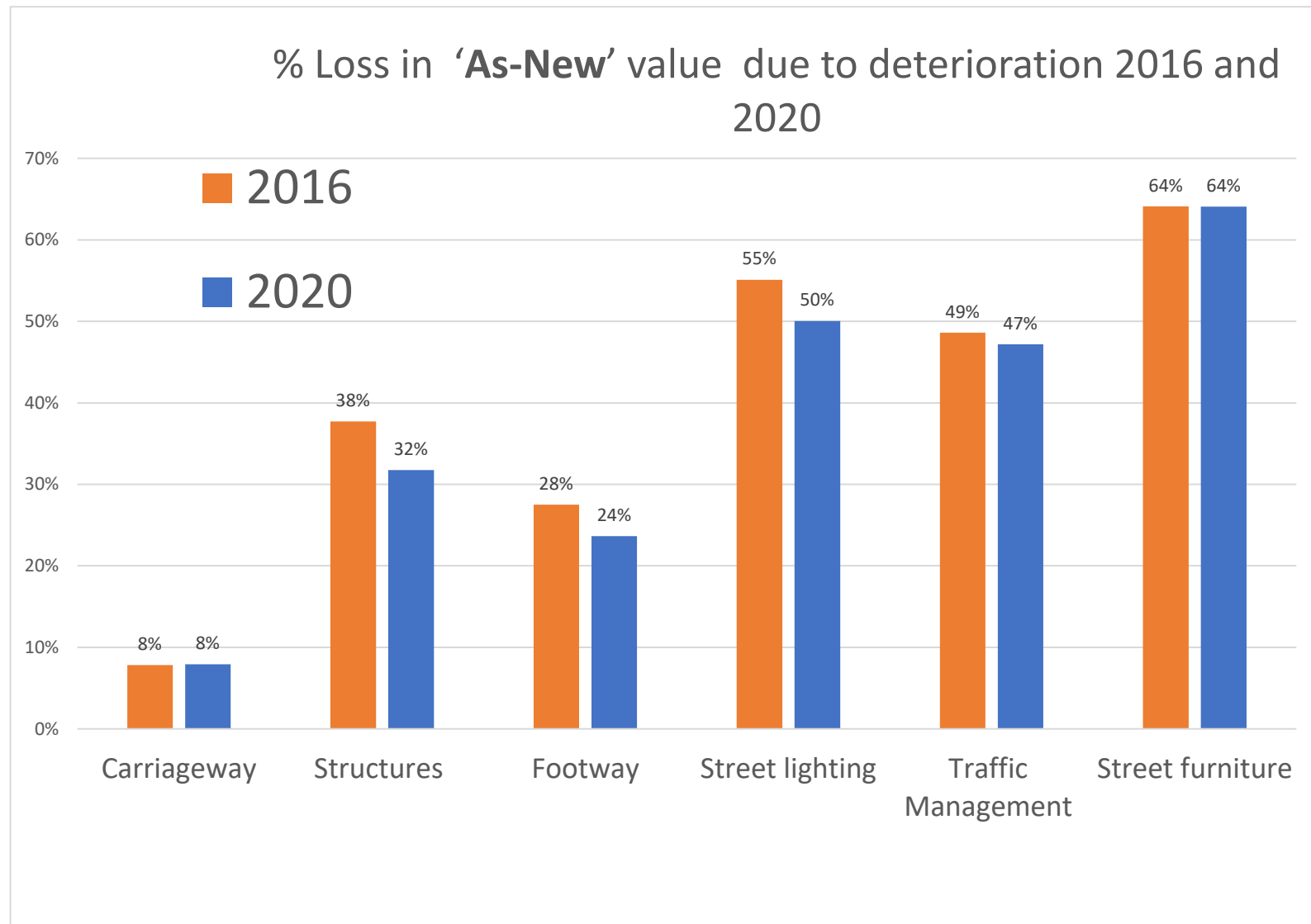
Colour	Rating	Attainment of Measure	Model Evidence
Light Green	1	Measure has not been met	Model evidence is not in place
Mid-Green	2	Measure has been met	Most model evidence is in place, and/or is in place and could be strengthened
Dark Green	3	Measure has been met	Strong model evidence is in place

The eight key measures that are assessed are:

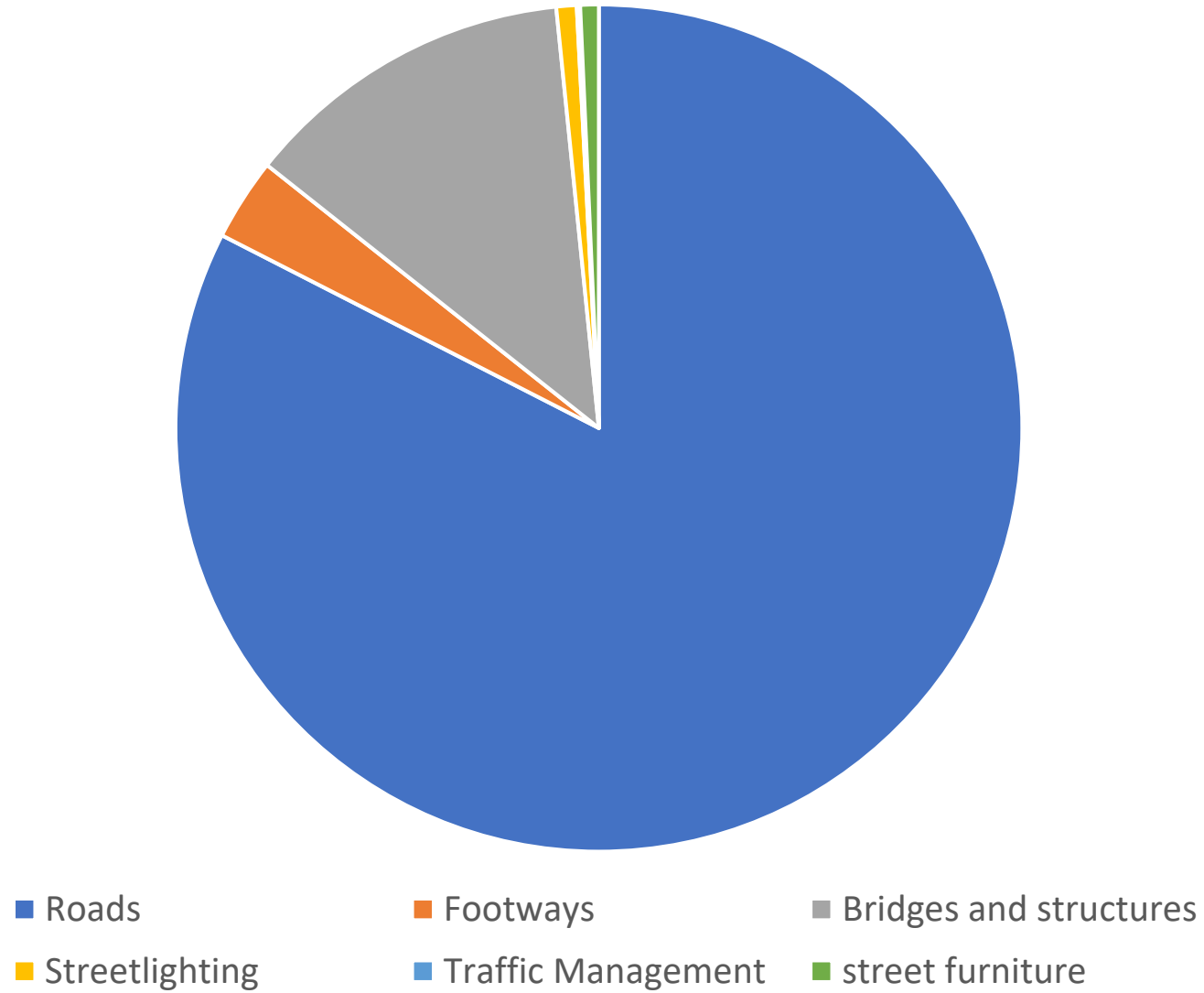
1. The asset management approach has been communicated and is understood.
2. The authority has the competence and training required to deliver highway asset management effectively.
3. There is an asset investment strategy linked to funding and levels of service.
4. Levels of service are set, and performance 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.

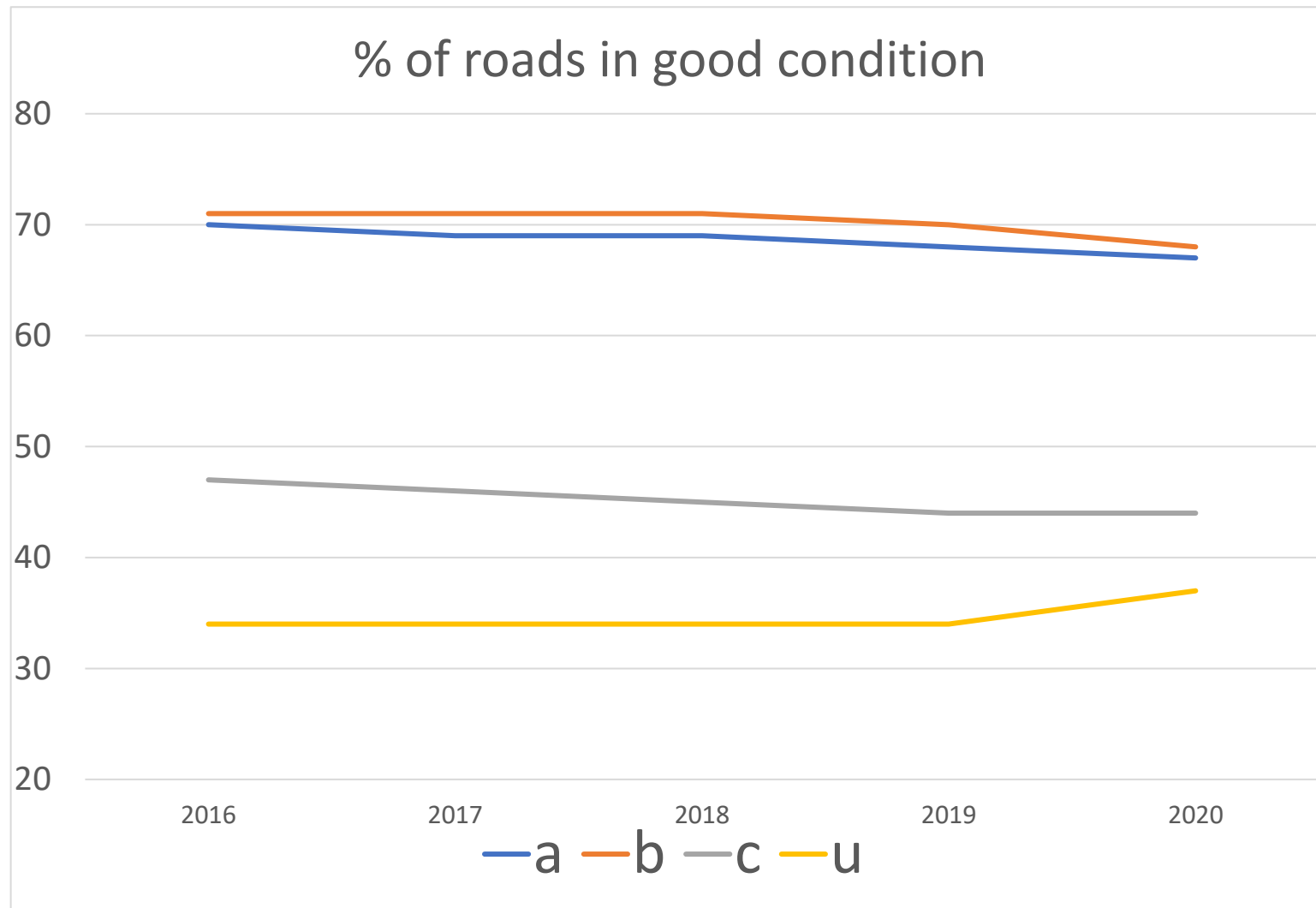
Our approach to performance management is reviewed regularly as part of the ongoing reviews of our asset approach.

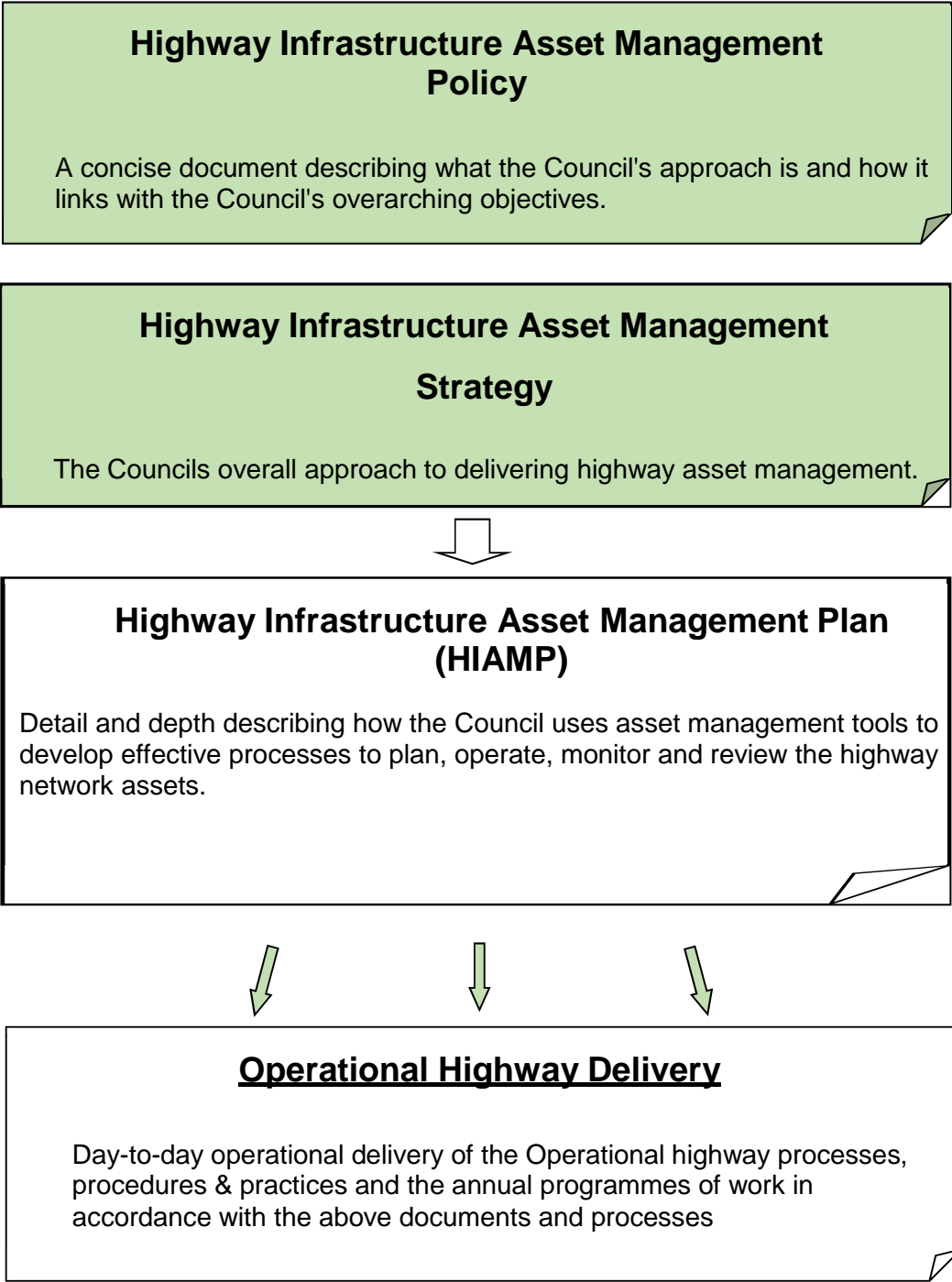
Appendix A: Highway Asset Group Change in Condition Graphs and Diagrams

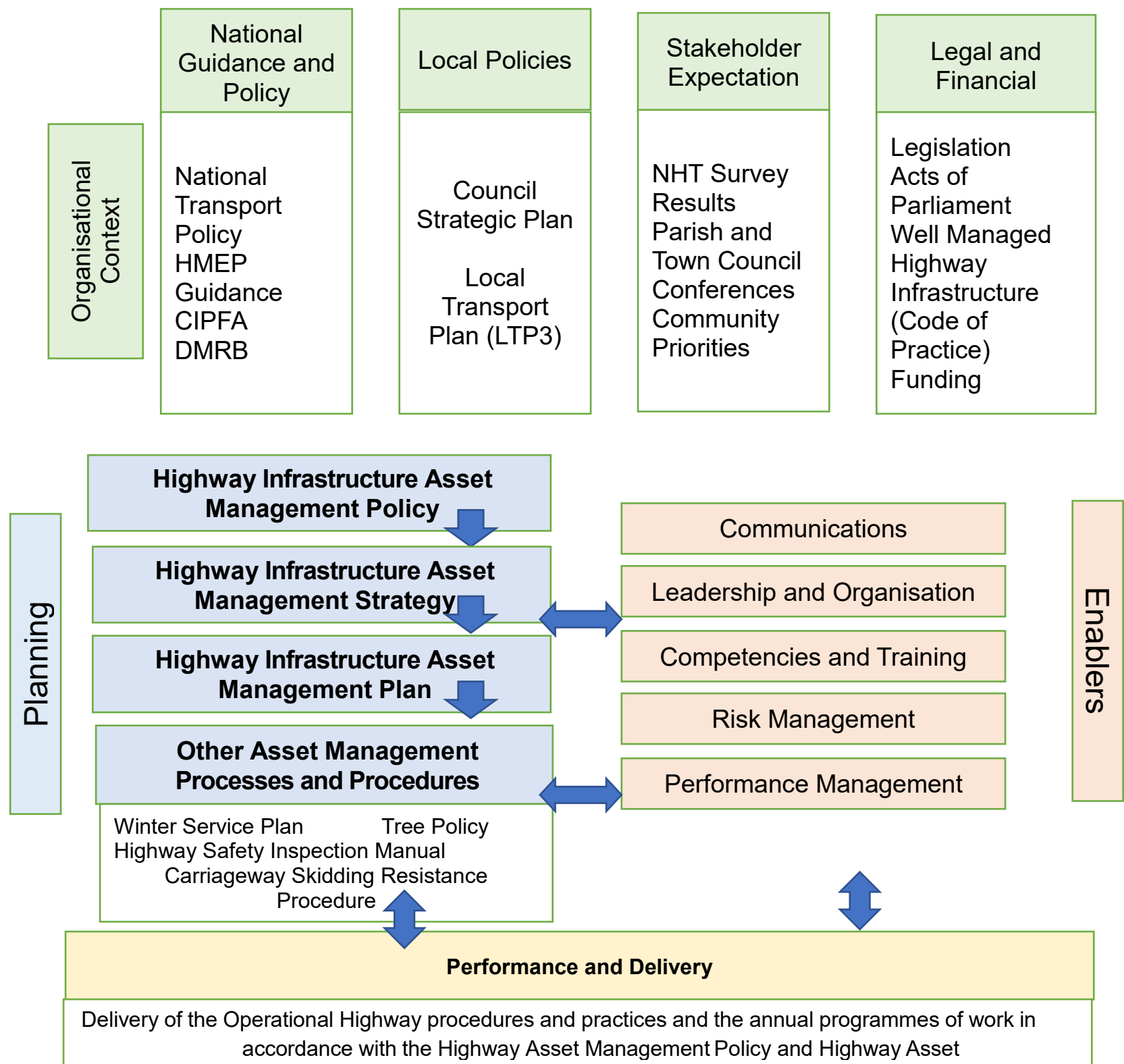


Value of Devon Highway Asset £12Bn









Appendix C: How Levels of Service will be achieved

Asset	Service	Measure	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.			✓			✓
		Operate a winter service of precautionary salting and snow clearance on strategic roads and when possible on secondary routes as laid out in our Winter Service and Emergency Plan.			✓			✓
		Support communities in their efforts to organise volunteers to clear snow and spread grit on routes considered locally important by providing support and training to snow wardens as well as equipment and bagged salt where applicable.			✓			✓
		Investigate reports of highway flooding and damaged or blocked highway drains and take appropriate measures to keep water off the highway, alleviate or mitigate flooding as appropriate.	✓		✓	✓		✓
		Prepare a cyclical programme of gully cleansing.	✓		✓	✓		✓
		Jet drainage systems on a reactive basis as they are reported or found through inspection.	✓		✓			✓
		Carry out an annual programme of grip cleaning and cutting.	✓		✓			✓
		Repair or replace any safety signs knocked down or damaged by routine traffic accidents			✓			✓
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.	✓	✓	✓	✓	✓	✓
		Carry out structures inspections in accordance with the national code of practice.			✓			✓
Structures	Bridges, Retaining Walls, Culverts	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.			✓			✓

Asset	Service	Measure	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
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 management	Respond within 4 hours to signal failures.			✓			✓
		Operate an annual inspection, electrical testing and repair regime for all traffic signals and pedestrian crossings	✓		✓			✓
Traffic Signals and Streetlights	Streetlighting	Respond within 2 hours to reported traffic accidents involving lighting columns or other lighting emergencies			✓			✓
		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.	✓		✓		✓	✓
	Vehicle restraint systems, Guardrail, Fences	Assess safety fences when they are knocked down or damaged and repair, replace or remove as required.	✓					✓
Trees and Soft Landscape	Highway verge	Carry out annual programme of grass cutting to maintain safe visibility at junctions and visibility splays	✓					✓
	Trees	Inspect highways trees and prioritise repairs to safety defects in accordance with the Tree Inspection Policy	✓				✓	✓