

# Oxfordshire County Council

## Highway Infrastructure Asset Management Strategy (HIAMS)

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## 1. Document Purpose

This document: Oxfordshire County Council's *Highway Infrastructure Asset Management Strategy* (HIAMS), sets out the high-level strategic direction that the county council intends to take in several core areas of business considered to be particularly pertinent to the management of its highway infrastructure assets.

The strategy is intended to provide an overarching direction to follow and a framework of consciousness against which all our subsequent planning and decision making can be aligned. It remains both interpretative and flexible and is not intended to prescribe the complex schedules of individual activity required to be taken thereafter.

Once confirmed, the strategy defined is used to set the parameters for the development and delivery of the proceeding *Highways Infrastructure Asset Management Plan* (HIAMP); a series of more discreet and focussed commitments, each of which once pursued will have a direct influence on how the asset and the service is managed and maintained.

This strategy therefore serves as the executive level order in a hierarchy of asset management planning stages. It sets the direction, but not necessarily the path.

The asset management planning hierarchy; of which the HIAMS is a part, and which provides the line of sight between corporate priorities and each of the services, teams, and individual team members undertakings can be seen in *Figure 02*.

## **2. Background**

### ***2.1. What is Asset Management?***

Asset Management is the coordinated and deliberate activity of an organisation to realise value from their assets.

An organisation's assets can take many forms, as can their perceived value, which might not necessarily be expressed in monetary terms.

Often assets are physical, but they could be digital, or intellectual. Essentially anything with an inherent value, whether it be latent or actual could be considered an asset.

### ***2.2. Highway Asset Management***

Highway asset management is a well-established, and more business-like approach to the management and maintenance of the highway network that plans for investment over its whole life.

Effective and competent asset management is now considered to be an important and integral part of managing the highway network. Accordingly, since 2016 the council's annual maintenance grant from the Department for Transport (DfT) has in part been dependent on the ability to demonstrate adoption of a robust asset management approach.

### ***2.3. The Benefits of Asset Management***

Benefits of a formalised asset management approach are almost limitless. Simply put it enables better, and more informed decisions to be made about how best to invest the limited resources available. The approach aligns the county council's objectives with the expectations of our customers.

Risks are able to be better and more holistically understood and managed, including not just the risk of personal loss or injury, but economic, environmental, reputational, and financial risk.

Our actions are made more transparent and our customers can have a greater level of confidence in the decisions that ultimately affect their lives.

## **3. Context**

### **3.1. The County of Oxfordshire**

The Oxfordshire economy generates approximately £20bn Gross Value Added (GVA), supports around 417,000 jobs across a total of approximately 30,000 businesses and is uniquely defined by the concentration of knowledge intensive clusters and high-tech firms; over 50,000 people now work in high tech sectors in the county across more than 1,500 businesses.

Oxfordshire's creative, cultural, heritage and tourist economy is estimated to be worth £3.1 billion per year. Oxford's unique character as a leading university city and a historic centre sets it apart from the rest of the county and attracts much more travel than most towns or cities of comparable size.

Tourism, business and academia are vital to the economy and 35% of the county's jobs are in the city. Due to the high number of jobs and the shortage and cost of housing in the city, more people commute to Oxford from outside the city than are working residents.

The county has a high-quality natural environment. The county still has some of the finest and rarest grasslands in the county, important areas of high-quality freshwater habitat and significant areas of ancient woodland. Three areas of outstanding natural beauty cover more than a quarter of Oxfordshire.

The highway network is the lifeblood of the county, enabling goods and people to move around the county and beyond and providing the conduit for utilities to provide essential services.

### **3.2. The Asset**

The county council is responsible for maintaining the local highway network in Oxfordshire, but not the trunk and motorway network which is managed by National Highways and includes the M40 and the A34.

Currently valued at more than £6.1 billion, the local highway network is the most valuable asset under the council's control and much of the economic and societal activity of the county is dependent on it. An illustration of the total value, split by asset group is in *Figure 01*.

The network though is aged, and mostly evolved rather than ever having been truly designed. It is a functional asset and its continual cycle of deterioration is inevitable

requiring the council to continually make difficult decisions about how best to balance the many and often competing needs / desires of our customers on how best to manage and maintain it.

The Oxfordshire highway network assets include but are not limited to approximately:

- 3,000 miles of road
- 2,000 miles of footway
- 1,200 bridges
- 80,000 streetlights
- 50,000 traffic signs
- 160,000 roadside drains
- 435 traffic signal junctions
- 400,000 highway trees
- 2,600 miles of countryside rights of way.

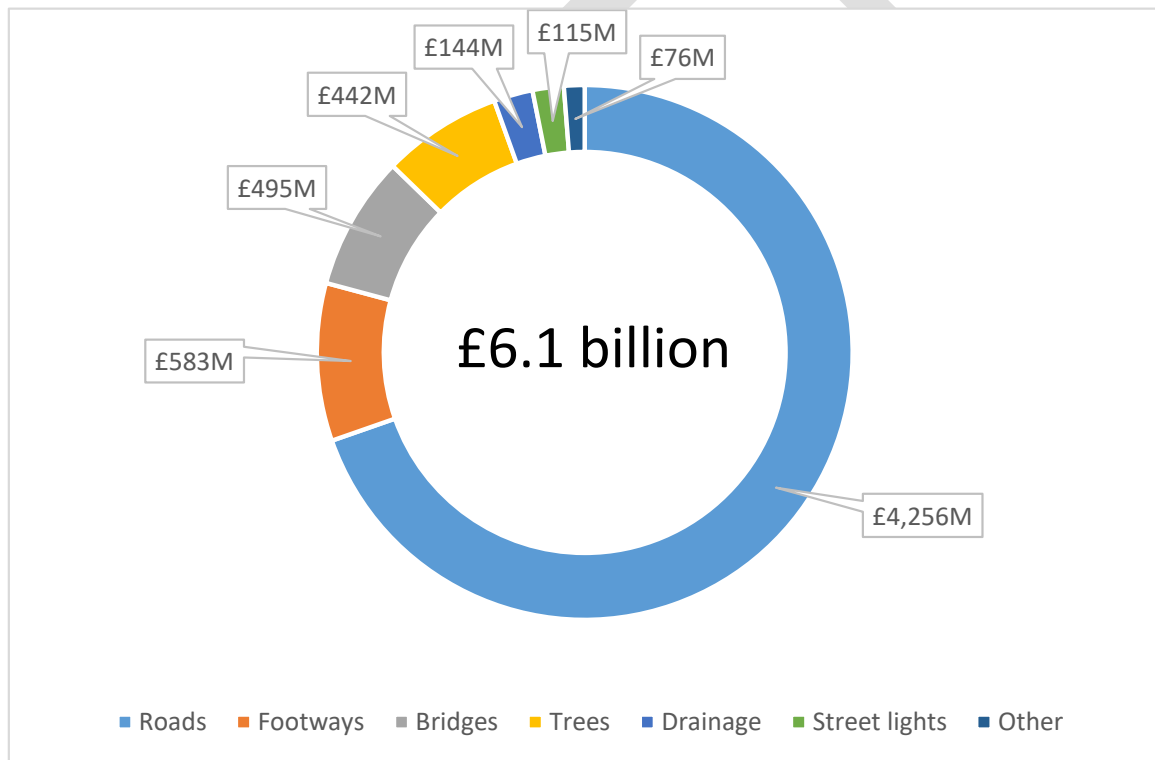


Figure 01 – Value of the Highway Network

# Oxfordshire Asset Management Planning Hierarchy

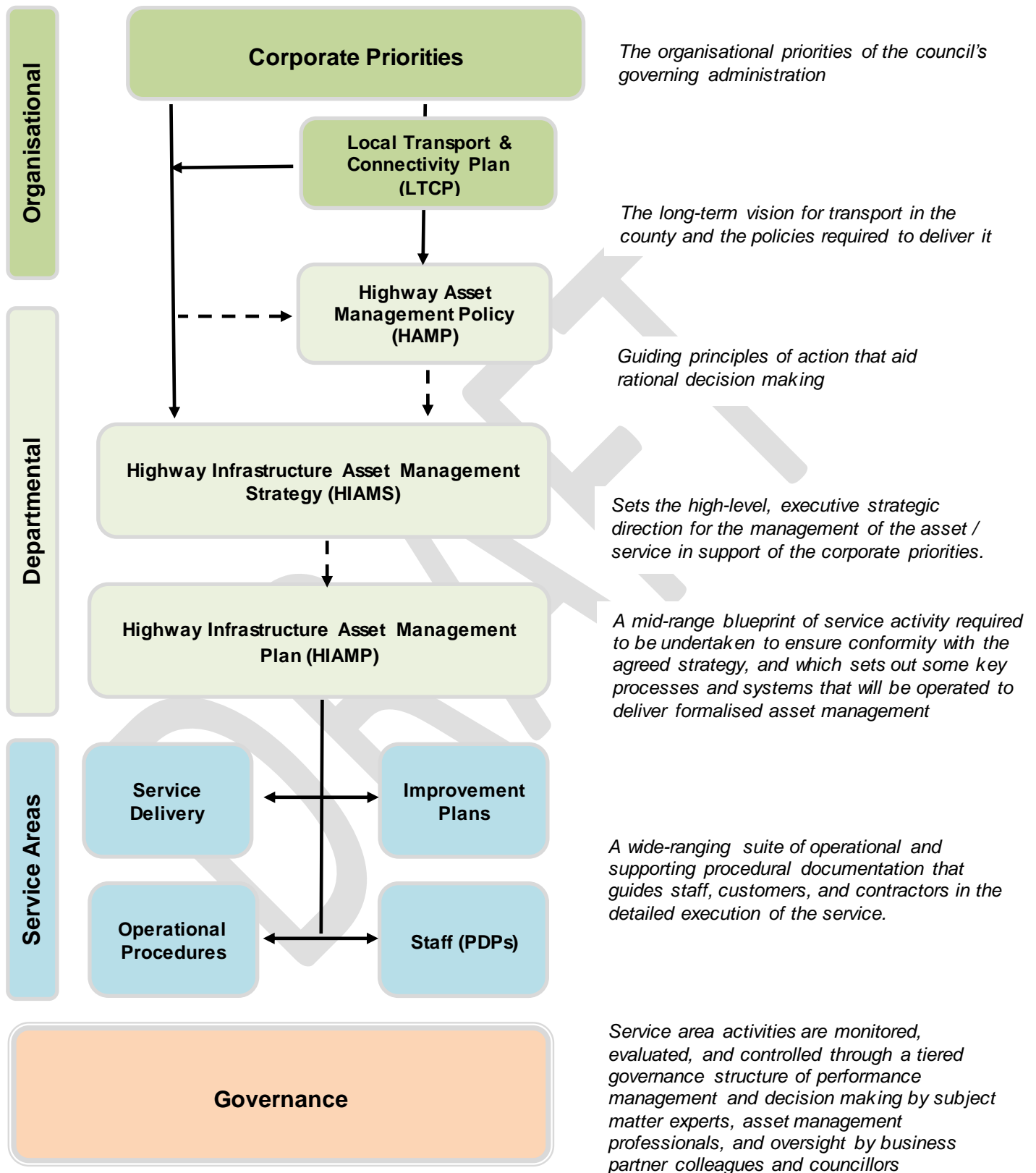


Figure. 02 – Asset Management Planning Hierarchy



## 4. Strategic Direction

### 4.1. Primary Strategic Intent

The county council's overarching strategic intent for highway asset management in Oxfordshire is founded on:

#### **AMS-01**

Delivering a service that is beyond merely compliant, but one which positively contributes towards, enables, and facilitates the achievement of the county council's corporate priorities on economic, societal and environmental matters

### 4.2. Compliance

In the context of the overarching strategy, *compliance*, refers to the numerous legal requirements that the county council, in its capacity as the highway authority must oblige and which in turn govern much of the way that it manages the highway network.

Some notable examples include the *Highways Act 1980*, which sets out the main statutory obligations for the council and includes the duty to maintain the network in a safe condition. *The Traffic Management Act 2004* requires the council to ensure the expeditious movement of traffic. And the *Flood and Water Management Act 2010* covers the management of flood risk associated with extreme weather.

Whilst the legal framework is extensive, many of its requirements can be incidentally satisfied through adoption of generally accepted good practice guidance and recommendations from across a variety of industry publications, and in particular the 2016 *Well Managed Highway Infrastructure; A Code of Practice* document.

#### **AMS-02**

The default approach to managing our network and the service will be in accordance with the latest current guidance where it exists, particularly the recommendations of the *Well Managed Highway Infrastructure Code of Practice*. This won't however preclude, or prejudice the county council in adopting a different approach as it may consider to be in the best of interests

### **4.3. A Fair Deal for Oxfordshire (Corporate Priorities)**

In 2021 the county council's governing administration set out a number of new corporate priorities outlined in Cabinet Paper July 2021 "A Fair Deal for Oxfordshire-Shaping Our Immediate and Longer-Term Priorities".

The priorities relevant to highways asset management, and which can be positively influenced by the way the council manages and maintains the highway network are listed below,

#### **CP-01**

Tackle the climate emergency through rapid decarbonisation, proper accounting of carbon emissions and ambitious targets, as well as supporting climate resilience.

#### **CP-02**

Tackling inequalities and providing opportunities for everyone in Oxfordshire to achieve their full potential.

#### **CP-03**

Prioritisation of wellbeing – improved outcomes for residents and improved air quality and access to libraries, cultural facilities and the arts.

#### **CP-04**

Increased investment in an inclusive, integrated, county-wide active and sustainable travel network fit for the 21st century to improve choice and reduce car journeys across the county.

#### **CP-05**

Improved access to nature and green spaces for all communities, and landscape-scale nature recovery across the county.

#### **CP-06**

The creation of a resilient local democracy, where decisions are devolved to the lowest possible level and residents are meaningfully involved in the decisions that affect their lives.

### **CP-07**

Support for local employment and businesses, working with partners to make Oxfordshire a centre for green and sustainable technologies through a local '*Green New Deal*'. We will use our purchasing power and contracts to maximise benefit to local employment and businesses.

## **5. Core Strategic Areas**

Whilst the overarching fundamental strategy is formed of two parts; ensuring compliance, and delivering on the corporate priorities, the strategy has been further refined to assist in the subsequent asset management planning stages by considering the following core areas where more specific clarification of the strategic intent is likely to enhance its opportunity for success and ultimately lead to better outcomes.

Those Core Strategic Areas are:

- Environment, Climate and Sustainability,
- Engagement.
- Resilience.
- Risk Management.
- Condition.
- Resources.

### **5.1. Environment, Climate and Sustainability**

Oxfordshire County Council formally acknowledged the climate emergency in 2019, and in 2020 published the *Climate Action Framework*, committing the authority to be operating at net-zero carbon by 2030.

An improved environmental condition and a more sustainable network offering are key elements to achieving that pledge, and they are too a consistent theme throughout the county council's corporate priorities which specifically includes for rapid decarbonisation, an increased investment in the active and sustainable travel network, and landscape-scale nature recovery across the county.

It has long been recognised that the construction and infrastructure sectors, of which highway maintenance is included, face one of the greatest challenges not only in moving towards achieving net carbon zero, but also in reducing the detrimental impact of its activity on the natural environment.

However, those inherent obstacles also mean that the sector is continues to present one of the greatest and largely latent areas of opportunity to be pursued in doing so it could have both a direct and an indirectly positive impact on the environment in general, the sustainability of the highway maintenance service specifically, and also in achieving the council's commitment to be net-zero carbon by 2030.

Accordingly, the county councils sets the following strategic intentions as to how to make a positive and notable contribution to achieving those priorities/objectives:

**AMS-03**

Proactively seeking, welcoming and pioneering alternative, and innovative design/engineering ideas/solutions and being recognised as a national testbed for the same.

**AMS-04**

Re-distributing available resources to create, maintain and manage a network that better facilitates and enables people to travel and live more sustainably.

**AMS-05**

Methodical deconstruction and re-design of working practices; transforming how the service is delivered with a view to putting sustainability at the heart of everything that we do.

**AMS-06**

We will re-design our services to focus on the circular economy of reusing the resources already abundant in the network wherever possible.

**AMS-07**

Wherever possible we will be considerate to the character of local areas and any heritage issues. We will take opportunities to enhance nature and access to nature, and to adapt to the challenge of future climate change when delivering the service.

**AMS-08**

Where asset improvements are necessary, we will ensure that damage to the natural environment is kept to a minimum and seek opportunities to enhance biodiversity, the landscape, and ecosystems.

## **5.2. Engagement**

As a local authority and a public body, the county council's main aim for its asset management activities; even those required of us by legal necessity, is to best meet the needs and the expectations of our customers. Our actions are rightly therefore subject to much public and political scrutiny.

It is a priority of the county council for residents, businesses & visitors of the county to be well informed and meaningfully involved in and able to influence the decisions that affect their lives.

The county council recognises that the benefits of effective engagement are not exclusively realised through a focus on our conventional customers, but also with our wider stakeholders such as our contracting delivery partners and our extended supply chain that can be even more fruitful and mutually beneficial if carefully nurtured.

### **AMS-09**

Resources will be invested through programmes which are influenced & supported not only by engineering principles, but also by community led aspirations and decision making.

### **AMS-10**

We will engage on a regional and national level with peer authorities and the wider industry to benchmark our service, sharing our successes, and learning from those of others.

### **AMS-11**

We will provide an open door for our customers to contact us; supporting them in helping us to shape the service and seeking their feedback on our performance

### **AMS-12**

Our supply chain partners will be incentivised to work more collaboratively, innovatively, and closely with us to achieve our outcomes more quickly and efficiently.

### **AMS-13**

A culture of self-help will be supported by the county council – championing the role of volunteers in helping to deliver our service and enabling parish, town and district councils to do more on our behalf in their communities.

**AMS-14**

We will engage with key stakeholders and asset user groups (bus companies, disability and active groups) to ensure that where practicable their needs are understood and addressed.

**5.3. Resilience**

The success of most economic and social activity is dependent, at least in part, on the continued availability and serviceability of our national transport infrastructure.

Similarly, so too is the ability of communities to resist, respond to, and recover from emergency or otherwise undesired contingent events/occurrences.

Resilience to disruptive challenges faced by that infrastructure and the services that operate it is therefore a focus of our strategy. It plays an important role in ensuring the highway network is not only able to make its own direct contribution to the council's corporate priorities, but that it can also indirectly support the actions of others in achievement of the same.

The county council sets the following strategy

**AMS-15**

We will meaningfully consider the role of our highway assets and their relative importance in maintaining economic activity and access to key services.

**AMS-16**

Wherever practicable, we will proportionately tailor our service activities to safeguard and make more resilient those assets deemed to be most critical in maintaining economic activity and access to key services.

**AMS-17**

Whilst recognising the particular threat to resilience of communities and our assets by climatic conditions, we will not solely focus on these at the expense of other influencing factors.

#### **AMS-18**

We will support the growing demand in network capacity by strengthening investment in assets that support mass transport (e.g. public transport) and alternative transport networks (e.g. cycle routes).

### **5.4. Risk Management**

The need to understand and effectively manage risk is omnipresent in managing and maintaining such an extensive, functional and in many ways vulnerable asset.

We have adopted a risk-based approach to all aspects of the highway maintenance service. In doing so, rather than considering risks as having only negative potential, we recognise that tolerating some risk in the right environment and where the circumstances allow can actually create opportunities that otherwise probably couldn't have been realised.

By being less prescriptive in our approach we can instead be more dynamic and find new ways to solve old problems and in doing breed a culture of curiosity and innovation which invites expertise into the county and allows the network to become a live test bed for new ways of working.

#### **AMS-19**

Our approach to all things will be risk based, taking account of, amongst other influencing factors, the safety and needs of different user-groups, network hierarchy and levels of use, network condition, customer expectations, and environmental impact.

### **5.5. Asset Data & Condition**

The highway network is one of legacy, much of it is evolved, rather than ever having been truly designed, and many things have changed in the way we now aspire to live our lives in the decades since most of it was constructed.

Before we can consider how to utilise our assets, we must first understand what those assets are, where they are, and what condition they are in.

The more comprehensive our understanding of the asset, the more effectively we will be able to satisfactorily manage, plan for and maintain it. Asset data and intelligence is therefore essential, and we must make sacrosanct the value in obtaining that information and thereafter ensuring it remains current.

Through monitoring the condition of our assets, we will better be able to identify trends in asset improvement or deterioration, prioritise and optimise our investments, and monitor and communicate the effect of our treatment strategies.

Maintenance offers a unique opportunity to make modest but important changes to the design and the fabric of the network which cumulatively can have a big impact, and which can be done often at negligible additional cost.

#### **AMS-20**

Through routine maintenance we will exploit opportunities to make the network a space that is more easily shared, improves environmental quality, and which reflects our ambition for supporting more active and sustainable travel and transport choices.

#### **AMS-21**

We will treat asset data as an entity of the greatest value, basing our decisions on it, and where it does not exist, we will make plans to obtain it and keep it up to date.

#### **AMS-22**

Assets will be managed and maintained to the most optimum point to make the best use of the resources available in achieving our corporate priorities and obligations.

This may be a level of service or a condition which is perceived to be lower than they are currently.

#### **AMS-23**

A preventative approach to asset maintenance will be adopted; opting to give preference to well-timed and more cost-effective timely interventions rather than reacting on a 'worst first' basis.

### **5.6. Resources**

Since 2018 the county council has supplemented the capital investment in highway maintenance to a resultant level double that of the grant received from the Department for Transport (DfT), from around £16m to approximately £32m per year.

Assessment work undertaken has shown that despite this significant increase in capital investment, it is still significantly less than the estimated £45m that would be



required each year to maintain the assets in their current condition and it falls even further short still of being able to make any tangible improvements.

That additional investment comes to an end in March 2025 at which point the capital budget is likely to reduce to around £15m per year from April 2025.

Whilst financial pressures can be the most difficult to overcome, we recognise that not all of our resources are monetary. They include our staff and our business (non-highway) assets such as depots for instance. We must ensure that those other essential resources are as robustly managed as our finances.

**AMS-24**

We will take a pro-active, planned, evidence and 'zero-based budgeting' approach to financial resource allocation for the medium-long term and move away from arbitrary or historic expenditure

**AMS-25**

Our staff will be competent in executing their duties and confident in their ability to do so. They will understand their roles and responsibilities. We will support their development, but hold them always to the high standards expected of them

**AMS-26**

We will plan for all of our business (non-highway) assets to ensure that they are fully optimised to assist in delivering our target service and that they are not overlooked

## **6. Strategy Reviews**

This strategy shall be formally reviewed no less frequently than once every three years from the date of its formal ascent.

However, interim reviews of the strategy, either wholly or in part may take place at more regular intervals if deemed necessary due to any other change in circumstance that might warrant it.