



Transport, Economy & Environment Overview and Scrutiny Committee

17 April 2019

Report of the Corporate Director Business and Environmental Services

Highways Infrastructure Asset Management Policy and Strategy

1.0 Purpose of report

- 1.1 The purpose of this report is to provide the committee the opportunity to review the updated highways infrastructure asset management policy and strategy documents. The documents describe how Highways and Transportation use asset management principals as part of its highways service. The policy provides a high-level view of how the service will deliver key components of the council plan and local transport plan while the strategy describes how the policy will be delivered within the service.
- 1.2 The documents for review are updates to existing versions adopted by the County Council in 2015.
- 1.3 It is planned that the policy and strategy, along with any amendments made here, will be presented to Executive in June 2019 and County Council in July 2019 for final adoption

2.0 Key background information

- 2.1 These two documents relate to a Department for Transport (DfT) initiative that recommends the use of asset management principles as a way of managing the highway network. Dating from 2013, the recommendations are that the highway network is seen as a set of asset and asset groups each having a set of associated attributes (such as asset type, condition, cost et. al.) and is managed accordingly. Such an approach is accepted at national and local government level as a more efficient and effective approach to managing a highways infrastructure.
- 2.2 The two documents for review are a policy and strategy response to the challenge set down by DfT on the use of asset management principles.
- 2.3 Since both documents are related to the same subject matter albeit at a different level, it was considered that they can be reviewed at the same time
- 2.4 The Highways Infrastructure Asset Management Policy describes how North Yorkshire County Council's highways service will use an asset management based approach to deliver key portions of the Council Plan and the most recent Local Transport Plan.
- 2.5 The policy is an update to the previous version that was adopted by County Council in June 2015. The changes reflect the following influences during the intervening period.

- The most recent version of the Council Plan - 2018 was the version referenced in the updated policy.
 - The updated version of the Council's Local Transport Plan - version 4 was considered within the updated policy
 - Additional advice and guidance from the Department for Transport published on the subject of highways delivery including asset management.
 - Experience and knowledge gained within the highways service during the intervening period.
- 2.6 The updated policy demonstrates a commitment to a well-managed integrated network, efficient service delivery with a strong customer / stakeholder focus and performance management. A copy of the updated policy is attached as Appendix 1.
- 2.7 The highways infrastructure asset management strategy describes how North Yorkshire County Council's highways service's approach to deliver the highways infrastructure asset management policy. Whereas the policy is a short high level document describing how asset management will assist the highways service in delivering the council's strategic aims, the strategy contains more depth in how this will happen.
- 2.8 The updated strategy follows the guidance set out in the DfT sponsored highways infrastructure asset management documentation and describes how an asset management framework helps to deliver an efficient and effective approach to a long term highways service and supports better communication with customers and stakeholders.
- 2.9 The updated strategy is now more closely tied to the guidance than previously and also reflects the experience gained by the highways service over the period since its adoption in 2015. A copy of the updated strategy is attached as Appendix 2.
- 2.10 Based on input from a number of highways teams, the strategy now serves as a guide to best practice within asset management and a long term set of aims for the service in that area. It concentrates on three areas
- context – describes the context for highway infrastructure asset management, the organisation and the environment within which the local highway service is delivered;
 - planning – describes the key activities and processes for asset management planning and gives advice on how these should be applied to highway infrastructure assets; and
 - enablers – describe the enablers that support the implementation of the asset management framework
- 2.11 The adoption of both the asset management policy and strategy is fully in line with the Department for Transport's guidance forming a key component of its Highway Maintenance Efficiency Programme (HMEP.)
- 2.12 It is proposed that the updated policy and strategy, including any comments from members of the Transport, Economy and Environment Overview and Scrutiny Committee, will follow the reporting timetable set out below
- 25th June 2019 - Executive
 - 24th July 2019 - County Council

3.0 Financial Implications

- 3.1 Demonstrating a commitment to an asset management framework is a key component in the Department for Transport Highway Management Efficiency Programme. In particular the existence of an up to date high level asset management policy alongside a strategy describing how the policy will be delivered is essential.
- 3.2 Related to this, the Highway Management Efficiency Programme self-service questionnaire has a question on both a policy and a strategy. Failing to meet the requirements of this question means the loss of a significant amount of funding which for North Yorkshire for the 2019/2020 financial year would amount to £4.8m.

4.0 Legal Implications

- 4.1 The County Council, as highway authority, has a statutory duty to maintain the highway under Section 41 of the Highways Act 1980 and the development and updating of both the policy and strategy supports the Council in fulfilling its duty.
- 4.2 Both the policy and strategy documents have been reviewed by Legal and Democratic Services and amendments were made where recommended.

5.0 Equalities Implications

- 5.1 Consideration has been given to the potential for any adverse equality impacts arising from the recommendation. It is the view of officers that the recommendation does not have an adverse impact on any of the protected characteristics identified in the Equalities Act 2010. A copy of the 'Record of Decision that an Equality Impact Assessment is not required' is attached as Appendix C.

<h3>6.0 Recommendation</h3>

- | |
|--|
| <ul style="list-style-type: none">6.1 It is recommended that Members provide comments on the updated Highway Infrastructure Asset Management Policy and Strategy which will then be included in the report to Executive seeking approval for them ahead of adoption by the County Council. |
|--|

DAVID BOWE
Corporate Director

Author
Stephen Lilgert – Senior Strategy and Performance Officer

Date
27 March 2019

North Yorkshire County Council

Highways Infrastructure Asset Management Policy

We want North Yorkshire to be a thriving county which adapts to a changing world and remains a special place for everyone to live, work and visit

- North Yorkshire County Council vision statement

...how the transport services and infrastructure provided by the County Council and partners aim to contribute towards our shared Vision and the NYCC Council Plan priorities

- Excerpt from the North Yorkshire Local Transport Plan 2016-2045

The North Yorkshire Highways and Transportation service recognises the importance that an effective transport network plays in delivering the overall council vision. It underpins the delivery of council services, enables residents and visitors to access both work and leisure destinations along with essential services such as health, social care and education and provides a key supporting role in the council's economic growth ambitions.

The Department of Transport's Highways Maintenance Efficiency Programme recommends that a highways authority adopt an asset management approach to the delivery of the highways service. The principles of the programme are investment in highway maintenance to demonstrate value for money over the life of the asset and to meet increasing public demands and expectations.

As part of our policies and procedures we already have an asset management framework in place. Supported by this framework, we will, through continuous improvement, ensure that the highways service meets the current and future challenges that North Yorkshire faces and delivers the key highways priorities of the council's vision.

Developing a modern integrated transport network

A modern, integrated transport network is essential if North Yorkshire is to be a place with a strong economy and a commitment to sustainable growth. An asset management framework supports this through an understanding not only of individual asset performance but of how they interact to produce a whole network infrastructure.

Our asset management approach will track the performance of both assets and asset groups giving us a wider view of the highway network. This view will allow us to optimise the delivery of our highway services to better fit the long term vision of the council. The aim is to provide a strategic, sustainable and safe network which enables our citizens to fulfil their ambitions and aspirations.

Efficient delivery of services

In times of financial pressures, it is essential that we deliver our highways services in an efficient and cost effective manner. An asset management framework is widely accepted as a means to delivering

an efficient highways service through long term planning of asset maintenance. This ensures that a highways service is delivered within achievable budgets.

We will continue to drive the use of asset management to keep the delivery of the highways management service as efficient as possible. Key to this is an emphasis on the implementation and monitoring of our long term planned maintenance programme and a robust risk based approach to maintaining the transport network.

A council that puts the customer at the heart of services

The highways network impacts the lives of residents and visitors alike both directly and indirectly. Ensuring that we meet the expectations of our customers every day is a key part of the highways service. The information based approach of an asset management framework lends itself to a more open and two-way conversation with customers.

The highways service will continue to work alongside its partners to deliver a network fit to support the needs of our customers. Through our asset management system we will continue to improve access to information about the way we plan, fund and deliver the service and implement efficient methods of reporting and tracking issues.

Analyse our performance

It is the council's approach to analyse our performance, use this to become better at what we do, and share with our stakeholders how we are doing. The data and information available from an asset management framework can be used to measure, benchmark and ultimately identify areas for continuous improvement in the delivery of the service.

The highways service has a mature and robust performance management framework with significant reference to highways asset information. We will continue to use and improve this at a strategic and operational level to monitor the performance of the service against the key council policies and statutory requirements. Records of the performance of our highways assets will continue to be available to all stakeholders.

Manage, maintain and improve

The overall aim of the highways service fully supports the key vision within the council plan. Implementation of this aim ultimately delivers a safe, well managed and maintained highway infrastructure to North Yorkshire meeting the legal and statutory requirements placed upon us.

We will continue to implement our asset management framework as a way of ensuring that the delivery of the service is subject to challenge and continuous improvement; and is fit for the future needs of the county.

The highways infrastructure asset management policy sits at the head of the asset management framework. The delivery of the framework will be through the strategy and the individual asset management plans and will adhere to industry guidance on asset management and the new well managed highway infrastructure code of practice.

North Yorkshire County Council

Highways Infrastructure Asset Management Strategy

Introduction

Overview

Asset management has been widely accepted by central and local government as a means to deliver a more efficient and effective approach to management of highway infrastructure assets through longer term planning, ensuring that standards are defined and achievable for available budgets. It also supports making the case for funding and better communication with stakeholders, facilitating a greater understanding of the contribution highway infrastructure assets make to economic growth and the needs of local communities.

At over 9000km in length, North Yorkshire has one of the longest road networks of any highways authority in the country. The current annual maintenance budget (for both capital and revenue) is over £60m and as such it is vital to ensure that the Council is achieving value for money and delivering the best possible outcomes for all of the users of the highway network.

For a number of years North Yorkshire Highways and Transportation (H&T) has used asset management as a way of delivering its services. This includes long term works programming, a risk based approach to planned and reactive maintenance and strong stakeholder engagement. In 2015 this approach was coalesced within a framework headed by a newly created asset management policy and strategy.

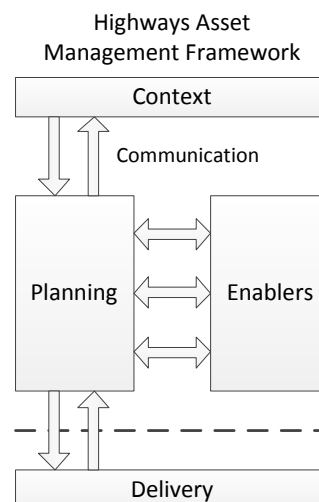
This document represents a revision of the strategy to reflect the following:

- updated strategic council documents in particular the latest Council Plan and a revised Local Transport Plan;
- an updated Highways Infrastructure Asset Management Policy;
- updated guidance from Department for Transport, specifically the Well-managed Highway Infrastructure – a Code of Practice (2016) developed by the UK Roads Liaison Group;
- continuing external challenges; and
- knowledge gained from continuous improvement within the highway service.

North Yorkshire Highways Asset Management Framework

North Yorkshire County Council's Highways and Transportation service (H&T) has been implementing asset management in the highways maintenance service for a number of years, through an asset management framework. The Framework represents North Yorkshire's approach to asset based highways maintenance; agreed by senior decision makers and its principles recorded through a series of related documents.

The Framework follows the guidelines set down by the UKLRG, commissioned by DfT as part of Highways Maintenance Efficiency Programme. It is tailored to the needs of the council. See the diagram to the right for an overview of the Framework and the text below which describes the three main parts of the Framework:



- context – describes the context for highway infrastructure asset management, the organisation and the environment within which the local highway service is delivered;
- planning – describes the key activities and processes for asset management planning and gives advice on how these should be applied to highway infrastructure assets; and
- enablers – describe the enablers that support the implementation of the Asset Management Framework.

The remainder of this document will detail how the asset management framework assists in the delivery of the overall highways service.

Our Context for Highways Infrastructure Asset Management

Council Plan

The most recent Council Plan sets out the council's vision for North Yorkshire.

“We want North Yorkshire to be a thriving county which adapts to a changing world and remains a special place for everyone to live, work, and visit”

The plan identifies key areas which the highways service will contribute to the delivery of this vision.

Local Transport Plan

North Yorkshire's local transport plan takes the council's vision as set out in the Council Plan and details a long term approach to how we will deliver on the transportation elements. Below is an excerpt from the latest LTP.

...how the transport services and infrastructure provided by the County Council and partners aim to contribute towards our shared Vision and the NYCC Council Plan priorities

Developing a modern integrated transport network

In order to meet the current and future needs of the users of North Yorkshire's highways, our asset management approach ensures that the different asset groups work as one to provide a seamless delivery of the service.

The important deliverable is the creation of the works programme, built from the various asset data available. This allows us to provide a stable, long term view of the network and how we will manage the network. Such a long term approach means that we can manage our funding and be certain of how our network will look in the future. This provides a stable transport infrastructure backed up by a robust asset management approach as documented in the framework supporting the millions of users win North Yorkshire and beyond.

This delivery extends beyond our boundaries as we work closely with our neighbours to ensure that there is a level of consistency of stakeholder experience when crossing a border.

Efficient delivery of services

Our use of lifecycle planning will allow us to better plan where our resources are spent – at the point when the greatest value for money is gained. Within challenging financial times, the ability to plan maintenance over a three to five year period provides a level of funding stability.

Using the asset based deterioration models we will be able to predict the condition of the network over time ensuring any problems can be foreseen and appropriate, and cost effective treatments can be applied. Our significant use of surface dressing is seen as a major factor in maintaining the network in as good a condition as possible within budgetary constraints.

A council that puts the customer at the heart of services

We will strive to improve access to information for all our stakeholders allowing customers to report and track issues that have occurred within the service. Our asset management system provides the basis for this information working in parallel with our existing customer relationship management infrastructure. We will continue to exploit and improve these links to enhance both the customer experience and our understanding of the performance of our assets.

Analyse our performance

Key to ensuring that we are delivering on the three previous vision statements is the ability for us to measure how we are performing. With a wealth of asset data available via the asset management systems, a dedicated performance team works with the highways service around the service plans and dashboards. This performance management includes benchmarking of asset performance against other authorities

Real-time performance monitoring of suitable assets is the next goal to allow senior leaders within the service up to date access to asset performance.

Manage, maintain and improve

This hierarchical statement describes the priorities by which we provide the highways service.

- Manage the current network
- Maintain those network assets that we have
- Improve the network where justifiable

At the heart of this overall highways commitment is the asset management framework. The ability to efficiently manage, maintain and improve can only be based on a solid knowledge of our assets, where they are, what their condition is and what are the historic events that have occurred to them.

This information serves a double purpose:

- creation of maintenance targets for each of the asset group which are set based, in most cases, on the historic data created through inspections and deterioration models. These targets coupled with up to date condition information put in place a gap which is the starting

point in the lifecycle approach to asset improvements. The programme of works is based upon this gap; and

- monitoring the performance against these targets through the regular cycle of inspections in addition to ad-hoc observations as time progresses. The feedback from the delivered works programme ensures that asset data are kept up to date. This performance loop allows senior management to ensure that the targets are correctly set and allow for modifications as circumstances allow such as increased or decreased funding.

Legislation and Statutory Requirements

A number of legal and statutory requirements are placed upon a highways authority to ensure a safe network. The Highways Act 1980 sets out the main duties in England and Wales. In particular, Section 41 of The Act imposes a duty upon the highways authority to maintain highways maintainable at public expense. Adherence to this and the other legislation is the highest priority within the highways service and the ability to establish a robust Section 58 defence plays a significant part in the setting the various service levels of our assets.

A strong understanding of how our network assets are performing both in the present and historically allows us anticipate future performance which ensures that the network overall continues to meet these statutory requirements. Our asset management framework serves as a key part of this understanding and achieves this by the following:

- a long term, centralised approach to overall asset management ensures a consistent approach to maintenance across the service;
- the use of individual asset data to monitor condition information ensuring that required works are completed only to those assets that require treatment; and
- a robust risk management based approach to highways asset maintenance based on guidance documentation alongside our own experience of asset performance.

These approaches are regularly reviewed and updated where necessary to comply with new legislation, to implement guidance or where our internal review processes recommend changes.

Code of Practice

In October 2016, the UK Roads Liaison Group produced the document, “Well-managed Highway Infrastructure: a Code of Practice” which promotes the adoption of an integrated asset management approach to highway infrastructure based on the establishment of local levels of service through risk-based assessment. This expanded on 2013 ‘Highways Infrastructure asset Management’ guidance document, also from the UK Roads Liaison Group reinforcing the benefits of an asset management approach in addition to additional recommendations on the management on asset groups.

Highways Maintenance Efficiency Programme

Both these documents, in addition to a number of asset specific publications, sit within the broader Highway Maintenance Efficiency Programme which exists to provide guidance and support for a more effective and efficient approach to the management of the highway infrastructure through the use of asset management.

Stakeholder Expectations

Managing stakeholder expectations and addressing their needs is a key aspect of asset management. There are many diverse individuals and groups that use the highway infrastructure however they all

expect a highway that is in good condition, safe, congestion free, reliable which supports their daily activities. An effective highway infrastructure is also vital to the economic prosperity of the county.

Our use of an asset management framework allows us to have an understanding of asset condition allowing us to ensure that, within the budgetary constraints, we are delivering the highest quality highways Levels of Service to our customers. From the regular monitoring of assets such as bridges and footway condition, we are constantly updating asset information and use this information for the long term planning of our works programme. Such an effective use of asset information allows us to meet out stakeholders expectations.

The reality is that sustainably maintaining our network at a perfect condition is cost prohibitive given current funding constraints. However, we have in place transparent customer information to enable people to understand the decisions that we make within the financial constraints.

Access to asset information for members of the public is vital in ensuring that we are seen as a responsive organisation. By means of web based reporting we are increasingly providing our stakeholders with a two way experience with progress information on a fault is updated. As such we will ensure that:

- layperson's information is available that provides details on the choices that we make when maintaining an asset e.g. carriageway treatments;
- all of the asset management documentation are available on the website from the Policy through to the individual asset management plans; and
- our quarterly performance figures are part of the general pack of information that is available through the council's governance structure.

This information alongside direct support assists our members as they manage their interaction with their constituents at a local level.

This approach to stakeholder engagement is supported by the highways infrastructure asset management communications plan.

Funding

Funding Targets

The use of an asset management framework is widely recognised as a way of delivering a more efficient highways service. It also supports the creation of business cases for required additional investment. However, to maintain all assets in a perfect condition at all times would be cost prohibitive, therefore funding targets need to be set on the basis of the Levels of Service set by Council.

Our asset management framework allows the highways service to make the best use of both the revenue and capital funding received from numerous sources. Key to reducing the more expensive reactive works is the effective use of the planned pieces of work contained within the capital programme. Increasing the accuracy of future investment allocations is key to maintaining agreed levels of service as well as demonstrating value for money.

The asset management framework supports this approach in the following ways:

- the current and long term view of our asset condition data will underpin the creation of our long term programme of works across all our assets based on Levels of Service;

- how asset management supports the various funding constraints and methods of acquiring funding;
- using asset information as part of a wider strategy to justify existing and to lobby for additional funding; and
- demonstrating value for money and the effective use of our current funds

Funding Sources

Listed below are high level data around where Highways and Transportation obtain its funding. The percentage splits are from the 18/19 financial year and may fluctuate year on year depending on funding conditions. It does give a broad outline of where funding comes from.

Revenue funding for the highways service has two broad areas of funding

Funding source	2018/19
Internally source funding including council tax and business rates	85%
Centrally allocated funds e.g. the revenue support grant	15%

Sources of capital funding for the highways service are largely split into four broad areas

Funding source	2018/19
The central local transport capital block funding including the LTP grant, and incentive fund	67%
Local growth funding allocated via the Local Enterprise Partnership	11.6%
One off additional centralised funding including for example National Productivity Investment fund and Pothole Action Fund	17.6%
Internally sourced funding – including matching one-off additional central funding	3.8%

From an asset management point of view it is clear that prevention is better than cure from a highways perspective and so our long term aim is to increase the benefit gained from the capital programme to reduce our revenue requirements.

Our Planned Approach to Asset Management

Asset Management Documents Hierarchy

The overall asset management framework consists of a number of related documents that provide an overall the basis for highways asset management within the council:

- **policy:** the asset management policy takes the key deliverables from the overall council plan and gives an overview on how the highways asset management framework will assist in delivery of the objectives. The short high level document, which is approved at county council sets out the principles that are expanded upon within the asset management strategy;
- **strategy:** the asset management strategy itself (this document) sits between the overall policy and the individual asset management plans. and sets out the way in which North Yorkshire County Council will manage its Highway Infrastructure Assets in such a way as to deliver the Policy; and
- **plans:** the various asset management plans provide further detail and where required reference specific documents around how the different asset types apply the principles of asset management in order to deliver an effective ‘whole of life’ service. The asset management plans represent the “on the ground” description of the technical management of the assets and may include commentary on the following:
 - Service provision

- Strategic Levels of Service
- Specific service levels and response times
- Asset inspection and maintenance schedules
- Works Programming
- Intervention matrices
- Design guidance

Supporting the overall framework are a set of overarching documentation plans that include communication and information management plans.

Our Highways Infrastructure Assets

Key asset groups	Key figures	Key asset data
Carriageways	8525 km carriageway	Location, condition, inspection schedule
Street lighting	50400 street lights	location, condition
Structures	1645 bridges	Location, inspection schedule bridge condition index
Traffic signals	327 traffic signal installations	
Drainage	c.157,000 gullies	Emptying schedule
footways	8000k	condition, inspection schedules

Asset Data

Data sets

Asset data sets are the building block of any successful asset management framework. Without a robust and accurate set of data then the ability to deliver an efficient service that meets the needs of its stakeholders.

These sets are used in a number of ways including the following.

- Creation of works programmes
- Making asset information available to our stakeholders including our customers and members
- Forming a significant base for the operational performance management frameworks
- Availability of information to satisfy our statutory data requirements.
- Benchmarking our service
- Contractual measures when working alongside our partners

All Highways asset information data are collected, stored and processed in accordance with the recently implemented General Data Protection Regulation (GDPR) as it applies in the UK, tailored by the Data Protection Act 2018.

Asset management data within the Council is documented by the Highways Asset Information Management Plan which is included in the suite of framework documentation.

Data collection

The acquisition of asset data is dependent on the specific asset in question however is based on one or more of the following methods:

- automated methods such as SCANNER or SCRIM

- regular continual inspection schedules of the network such as Coarse Visual Inspection or Detailed Visual Inspection;
- regular individual asset monitoring as with structures;
- reports from scheduled maintenance visits such as with drainage assets;
- 'as built' data for new and renewed assets;
- issues reported by our stakeholders such as incident calls from a member of the public; and
- one off pieces of work to augment asset information.

The technology with regards to the collection of data is constantly evolving. As emerging and new technologies become available we will look to utilise them in order to improve the efficiency of collection and the quality of the data from the field.

Data management

Highways and Transportation's asset management system is the main repository for asset information although this is augmented by specific systems dedicated to some asset types.

Asset data, specifically condition data, is central to the creation of the capital programme being the initial dataset placed through our lifecycle process.

Management of the asset data is the responsibility of all of the individual teams within the asset life cycle whose role it is to ensure integrity of the data by constantly updating the information according to their asset management plans. This ensures that, when being applied through the lifecycle process to create the works programmes, the information upon which funding decisions is an accurate reflection of the asset condition.

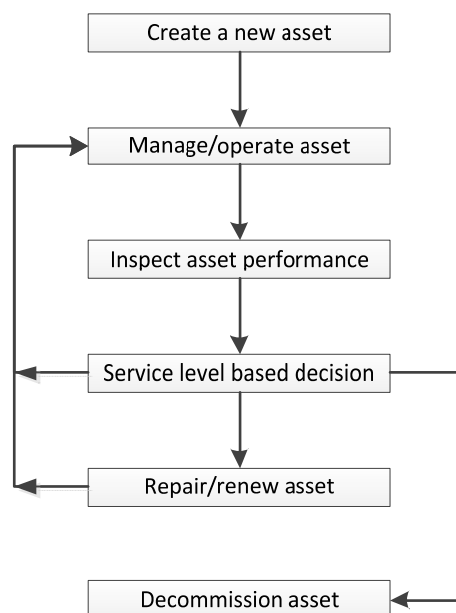
Asset Lifecycle Approach

The Life of an Asset

Highways and Transportation take a holistic approach to sustainable and whole life cost asset management. As an asset owning organisation we have accountability for all aspects of this cycle, even when it chooses to outsource various activities within the cycle.

The benefits to this longer holistic approach to asset management include the following:

- delivering better outcomes through continuous improvement, lessons learned and value for money – stretching the budgets;
- the ability to predict how investment affects the service levels;
- creating a resilient and sustainable long term approach to highway maintenance whilst remaining agile 'on the ground'; and
- improved and clearer communications with stakeholders with regard expectations and targets.



Levels of Service

Highways and Transportation manage their services levels using a risk based approach to ensure that the network remains as safe as possible within the financial constraints of the council.

Every asset within the network is subject to deterioration over its lifetime. The key to managing this deterioration is to set service levels for those assets although practically, this is done to groups of similar assets. Looking at the lifecycle diagram above, part of the process involves a decision point where the performance of an asset is compared against the agreed service levels for that asset type. The decision on whether to perform some action on the asset depends on the comparison.

There are four outcomes of the decision process:

- the asset is beneath the service level parameters and therefore has no action taken;
- the asset is decommissioned;
- the asset meets or exceeds the levels for reactive maintenance which is carried out within documented timescales; and
- the asset meets or exceeds the levels for planned maintenance and is added to the process of the long term programming. Note that this does not preclude any reactive maintenance occurring.

The service levels for the various asset management groups are included as part of their associated asset management plans along with supplementary documentation such as the Highways Safety Inspection Manual.

Effective Works Programming

The delivery of the works programme is the tangible outcome of the asset management planning process. The programming and delivery of works should align with the asset management strategy and meet the performance targets.

The most effective use of the funding available to the highways service is dependent on having a long term strategic view of the highway infrastructure. Our approach to lifecycle planning allows us this view and it is this which provides the building blocks of works programming or as it is known in North Yorkshire, the capital programme.

The process for the creation of the various prioritised asset programmes depends upon the specific asset class but will take into account the following criteria:

- asset condition information from the various surveys across the asset management spectrum although in some cases, the asset information will be as a result of a safety inspection – such as with bridges or Vehicle Restraint Systems;
- the location of the asset specifically the frequency of its usage or in the case of carriageways its category;
- local knowledge which can be gleaned from a general appreciation of the area or feedback from stakeholders; and
- other specific asset information such as its contribution to portions of the highways infrastructure asset management policy e.g. key to the growth of a particular area.

The resulting programme generated covers a three year period with an additional two years indicative. Such a long term approach allows not only for a level of certainty around funding but the ability to react to situations including:

- additional or reduced funding;
- flexibility around scheduling; and

- issues with resource availability.

Key facets of the capital programme are:

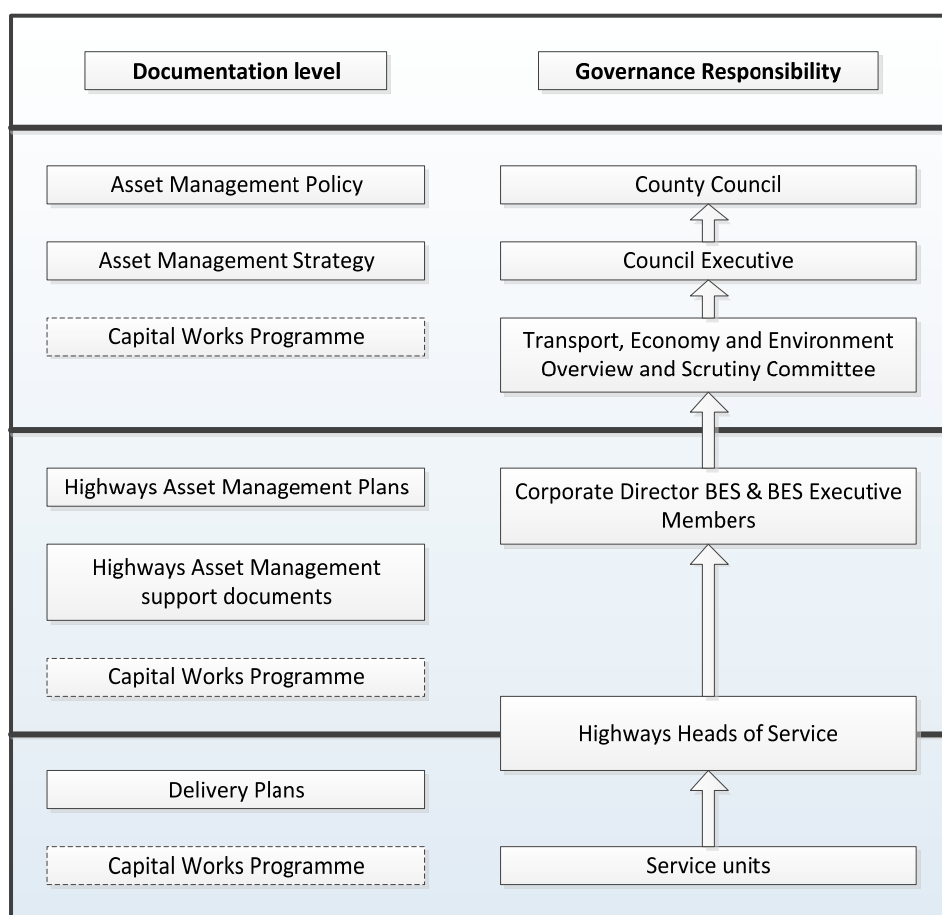
- Frontloading the schemes to ensure that budgetary control is consistent and minimising a Q4 rush to spend budget; and
- Look to join schemes by types and/or geography where possible to provide the following benefits:
 - minimising the disruption by carrying out work on one visit
 - provide economies of scale either through the term provider or through framework contracts

Our Enablers to a Successful Asset Management System

Governance

Overall governance

A governance structure has been put in place to enable both effective and appropriate scrutiny of the asset management framework. The diagram below shows the levels.



Policy and strategy

Policy and Strategic documentation are signed off at county council level after a process that includes the council's Executive members, the Transport, Economy and Environment Overview & Scrutiny Committee and the highways senior team. Additionally, and not shown on the diagram for brevity, the Corporate management board are consulted. This ensures that there is consistency in the asset management framework at a strategic level with council's overall vision.

Asset management plans and support documents

Overall governance of the asset management plans and support documentation rests with the Corporate Director of Business and Environmental Services BES in consultation with the Executive Member for Highways and Transportation. This devolved approach is made possible due to the hierarchical way in which the framework operates. This devolvement allows for non-policy/non-strategic decisions on specific asset groups to be taken in a more agile fashion

Operational delivery documentation

Operational management of the assets within the framework plans is generally governed by operational teams with support from internal Highways and Transportation teams and our maintenance and professional services partners. Where necessary the highways heads of service provide sign off.

The capital works programme

The capital works programme is signed off at county council using the same process as with the high-level policy and strategy documents. From that point onwards governance is devolved to one of three decision bodies depending on the requirements:

- Additions and deletions from the programme require agreement from the Corporate Director BES in consultation with the Executive Member for Highways and Transportation;
- Significant variations are approved by the highways heads of service; and
- Other variations are managed within the highways teams.

Performance Management

As part of the overall asset management framework, the performance management is described in two separate areas within this strategy:

- strategic performance management measures the overall delivery of the service and relies on the service plans and single scores; and
- operational measures look at combinations of assets and groups of assets and how they perform and are described in a separate section of this document. These are described below:

Strategic Performance Management

The strategic performance management of the asset management framework is primarily through the use of service planning that sets levels of service supported by performance targets and measures.

Quarterly monitoring of these service plans are in place providing visibility of the service performance to senior highways managers and reported through the corporate process to other stakeholders including the Council's management board and members. Ultimately the reports are published for anyone to view if desired.

This is a cyclical process where service levels and targets are reviewed as part of a process of continuous improvement.

Operational Performance Management

Asset information forms a key part of the operational performance monitoring within the highways service and this management. The data within the asset management systems serves as the source for a variety of performance related outputs. These reports form the basis for a number of key measurements within the highways service:

- feeding into the lifecycle process – the performance of the assets over time is used as part of the whole lifecycle process that ultimately leads to the creation of the long term programme of works. This process is cyclical embedding a level of continuous improvement into the service;
- dashboards and other performance management work such as monitoring the effectiveness of the various investment strategies;
- statutory returns to central bodies and other services – The condition indicators for asset groups form the basis for our statutory returns; and
- contractor and staff performance management.

Performance management of the capital works programme sits in both the strategic and operational areas with the operational financial information used to highlight issues with specific schemes.

Asset Management Systems

Asset data are of little value without the means to store, access and update the information. In order to support the key deliverables of the service, asset information needs to:

- be easily maintained for accuracy;
- provide the basis for informed decision making;
- facilitate communications with stakeholders;
- support the management of statutory requirements; and
- support continuous improvement.

The primary location for North Yorkshire's highways service asset information is a single monolithic commercial off the shelf product from Symology. GIS based, it provides the starting point for both current and historic asset information.

As an offsite managed system the technical management is through a third party however a dedicated team of asset engineers provide the operational service. Data information contained within the system includes the following;

- asset information;
- location details;
- current and historic condition information;
- works orders;
- third party claims;
- inspection schedules;
- defects and associated maintenance; and
- customer requests and associated responses – the customer module with automated links into the council's central customer relationship management product.

In order to facilitate a smoother path for customer access to asset information a number of the asset groups' data are available to the general public for the purpose of fault reporting. Map based, this allow our customers to report faults with certain asset groups through a portal based interface. The interface works two ways to provide automatic updates on call progress.

We recognise that there are occasions where a one-size-fits-all is not achievable and so outside of the primary asset management system, there are other asset groups that have requirements that need a dedicated system. Asset groups such as structures and traffic signals have their own dedicated systems through which they perform exactly the same processes.

We continually work alongside our system provider to look to augment the functionality of the asset management system to enable a greater centralised approach and an increased effectiveness of the system.

The Highways Asset Information Management Plan describes the high level requirements for the management of the assets. The asset management system is, in addition, the core of the operational performance management function.

Risk Management

The Council has a corporate risk management approach which includes dedicated management of the high level risks for each of the service areas across the organisation. Within Highways and Transportation these high level risks are managed within the service areas reporting regularly through the corporate process.

Our approach to risk management is influenced in the main by our statutory requirement as set out in various legislation. Leading on from this is the importance of being able to provide a robust section 58 defence against third party claims and the significant documentation around our risk-based approach to highways maintenance is proof of our commitment.

Risk based approach to Asset Management

The discipline and process of a risk-based approach to managing assets has increased significantly in all sectors within the last decade. Risk-based asset management has shown to be effective for asset-intensive systems, not necessarily by reducing risk, but by using risk to balance the operational performance of the assets against the asset life-cycle cost thereby creating a greater strategic overview of the asset lifecycle.

Expenditure on assets can be rationalised by using an assessment of what risk exposure is acceptable by varying stakeholders. Risk based asset management addresses the following critical issues as a minimum:

- Safety of the network and liability for accident;
- Asset loss or damage;
- Service failure or reduction;
- Operational;
- Environmental;
- Financial;
- Contractual; and
- Reputation;

North Yorkshire County Council as part of continuous improvement continues to develop its approach to risk based asset management in accordance with best practice such as ISO 55000

Inherent Risk Approach

Our approach to risk management is consistent across all the highways service however can be described within the following three separate areas:

- **corporate and the strategic network:** The overall highways service has a number of entries on the corporate risk register including those specific to highways assets such as drainage, maintenance of the network and major network incidents. These are reviewed bi-annually to ensure that the overall assessment is still valid and that the risk reduction actions are kept current. The strategic network was initially formed from the critical routes as part of the

winter maintenance function however has expanded to include those assets that support the county's key strategic and service delivery locations. Given the council's ambition for economic growth then this strategic network will be regularly reviewed to ensure that it continues to support the council plan;

- **inspections:** The inspection regime for all highways assets is described in the individual asset management plans and the highways safety inspection manual. The primary risk factor around inspections is usage of the assets and we carry out inspections frequently on the busier areas of the network; and
- **reactive maintenance:** As with planned inspections, each of the highways asset types has an associated risk rating as set out in their respective asset management plans and the highways safety inspection manual. These describe the potential risks of a particular asset failing to perform to its expected level e.g. a carriageway pothole, loose footway slab or blocked gully. This risk is based on a matrix measuring the probability and impact of such an event;
 - probability is the chance that an event with an asset will have an impact on someone or something. Essentially a problem with an asset on a busier part of the network is more likely to have an impact than one on a quiet part.
 - impact is the level of potential damage that a problem with an asset can have on someone or something.

The combination of these two measurements, based on a scale of 1 to 5, gives an overall risk rating which translates into whether there is a response and if so what the timescale is. The risk factors are regularly reviewed and changes are made where circumstances require it e.g. a recent change in the risk factors on parts of the highway used by cyclists.

<p>Initial equality impact assessment screening form (As of October 2015 this form replaces 'Record of decision not to carry out an EIA')</p> <p>This form records an equality screening process to determine the relevance of equality to a proposal, and a decision whether or not a full EIA would be appropriate or proportionate.</p>			
Directorate	Business and Environmental Services		
Service area	Highways and Transportation		
Proposal being screened	Updated highways infrastructure asset management policy and strategy documents		
Officer(s) carrying out screening	Tony Law		
What are you proposing to do?	<p>In July 2015, County Council adopted the highways infrastructure asset management policy. In June 2015, County Council adopted the highways infrastructure asset management strategy.</p> <p>This form refers to an update to the above two documents written during 2018 and expected to be adopted by full council in July 2019.</p>		
Why are you proposing this? What are the desired outcomes?	<p>Since the previous version were adopted there have been a number of changes to key council strategic documentation, specifically annual updates to the Council Plan and a newer version of the Local Transport Plan. In addition, DfT published a new code of practice on highways maintenance.</p> <p>With this in mind, it is timely to update the asset management policy and strategy to reflect these changes.</p> <p>The policy is a high level document explaining how the Highways and Transportation (H&T) will utilise asset management principles to assist in the delivery of the highways service within the overall strategic aims of the council.</p> <p>The strategy is a document explaining how H&T will utilise asset management principles to assist in the delivery of the highways service. This is within the assertions contained within the highways infrastructure asset management policy which itself delivers on the strategic aims of the Council.</p>		
Does the proposal involve a significant commitment or removal of resources? Please give details.	These are high level policy and strategic documents and require neither commitment to nor removal of resources. They set out the high-level aims of the existing highways service with respect to the way in which it manages its asset portfolio which such items as carriageways, bridges, streetlights et. al		
<p>Impact on people with any of the following protected characteristics as defined by the Equality Act 2010, or NYCC's additional agreed characteristic</p> <p>As part of this assessment, please consider the following questions:</p> <ul style="list-style-type: none"> • To what extent is this service used by particular groups of people with protected characteristics? • Does the proposal relate to functions that previous consultation has identified as important? • Do different groups have different needs or experiences in the area the proposal relates to? <p>If for any characteristic it is considered that there is likely to be a significant adverse impact or you have ticked 'Don't know/no info available', then a full EIA should be carried out where this is proportionate. You are advised to speak to your Equality rep for advice if you are in any doubt.</p>			
Protected characteristic	Yes	No	Don't know/No info available

Age		✓	
Disability		✓	
Sex (Gender)		✓	
Race		✓	
Sexual orientation		✓	
Gender reassignment		✓	
Religion or belief		✓	
Pregnancy or maternity		✓	
Marriage or civil partnership		✓	
NYCC additional characteristic			
People in rural areas		✓	
People on a low income		✓	
Carer (unpaid family or friend)		✓	
Does the proposal relate to an area where there are known inequalities/probable impacts (e.g. disabled people's access to public transport)? Please give details.	No		
Will the proposal have a significant effect on how other organisations operate? (e.g. partners, funding criteria, etc.). Do any of these organisations support people with protected characteristics? Please explain why you have reached this conclusion.	The highways service is delivered in collaboration with a number of other organisations. As these are updates to an existing documents, and no service levels are changing, there will be no impact on these existing providers.		
Decision (Please tick one option)	EIA not relevant or proportionate:	✓	Continue to full EIA:
Reason for decision	<p>These are updates to the existing policy and strategies from 2015. They state how H&T, following the overall council's strategic aims, will manage all highways assets in an efficient and customer focused manner.</p> <p>As high level documents there are no areas where levels of service will be altered. This means that no customers, including those with protected characteristics, will be impacted negatively.</p> <p>The recognised benefits of asset management including improved efficiency, accountability and customer service will have positive impacts on all users of the highways service.</p>		
Signed (Assistant Director or equivalent)	<i>Barrie Mason</i>		
Date	<i>04.04.2019</i>		