



CABINET – 16TH NOVEMBER 2016

SUBJECT: HIGHWAY ASSET MANAGEMENT PLAN ENDORSEMENT

REPORT BY: ACTING DIRECTOR OF CORPORATE SERVICES AND SECTION 151 OFFICER

- 1.1 The attached report, which was presented to the Regeneration and Environment Scrutiny Committee on 1st November 2016, outlined the background and content of the Caerphilly County Borough Council (CCBC) Highway Operations Group Framework and Highway Asset Management Plan (HAMP), and explained the process by which it is internally reviewed on an annual basis. Members were asked to review the HAMP process and key areas and provide comments for consideration, prior to its presentation to Cabinet and thereafter Council for endorsement.
- 1.2 Officers explained that the Council has a statutory duty to maintain a safe highway network as set out under the Highways Act 1980. The CCBC Highway Asset Management Plan (HAMP) is one of three plans that make up the Highway Operations Group Framework (detailed at Appendix 1 of the Scrutiny Committee report), the others being the Highway Maintenance Plan (HMP) and Highway Operations Plan (HOP). The HAMP is a strategic approach that identifies all the highway assets that are the responsibility of the highway authority (the Council). It assesses highway status and condition, and determines and implements the most appropriate maintenance regime within the most efficient cost parameters.
- 1.3 Members were advised that the working process of the HAMP is split into 4 parts, which offer relevant information and data for any respective asset enquiry and explain how this is reviewed and updated. The HAMP details highway assets with the relevant information and data for their identification and maintenance requirements, and is updated via a number of communication and feedback channels. A copy of the existing HAMP was attached at Appendix 2 of the Scrutiny Committee report. Members were advised of minor typographical errors at paragraphs 4.12 and 9.1 of the report (in that 4.12(b) should refer to paragraphs 4.5 and 4.6, 4.12(c) should refer to paragraph 4.10 and 9.1 should refer to paragraph 4.12). It was also noted that an Officer's name would be amended within the matrix of information contained at Section 3 of the HAMP.
- 1.4 During the course of the ensuing debate, reference was made to several asset categories within the HAMP that have been identified as being under review. It was explained that the information contained within the HAMP is a "living document" that is continuously being updated, and that the HAMP itself is reviewed on an annual basis to ensure that all references and processes and the asset inventory of the highway network are kept up to date.
- 1.5 Discussion took place regarding review arrangements for drains and gullies, with Members encouraged to report to Officers any areas where they are aware of drainage or blockage concerns. It was confirmed that inspection of these assets take place twice a year and it was agreed that the inspection schedule would be circulated to Members. Officers also responded to queries in respect of tips maintenance and recycling and the work carried out by highways inspectors in relation to the assessment of these sites.

- 1.6 Following consideration of the report (and subject to the aforementioned amendments), and having given consideration to key aspects of the HAMP as outlined in the report, the Regeneration and Environment Scrutiny Committee unanimously recommended that for the reasons contained therein:-
- (i) Cabinet and Council consider the content and annual review process for the Highway Asset Management Plan and the key aspects contained therein (namely the placement of the HAMP within the Highway Operations Group Framework, coverage of all aspects of highway asset management by the HAMP, and the identification of appropriate communication channels in respect of highway assets);
 - (ii) subject to the foregoing, the Highway Asset Management Plan as appended to the report presented to the Scrutiny Committee be endorsed.

1.7 Members are asked to consider the recommendations.

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Appendices:

Appendix 1 Report to Regeneration and Environment Scrutiny Committee on 1st November 2016
– Agenda Item 8



REGENERATION AND ENVIRONMENT SCRUTINY COMMITTEE – 1ST NOVEMBER 2016

SUBJECT: HIGHWAY ASSET MANAGEMENT PLAN ENDORSEMENT

REPORT BY: CORPORATE DIRECTOR COMMUNITIES

1. PURPOSE OF REPORT

- 1.1 This report will outline the background and content of the Caerphilly County Borough Council (CCBC) Highway Operations Group Framework and Highway Asset Management Plan (HAMP). It also explains the process by which it is internally reviewed on an annual basis.
- 1.2 Scrutiny members are asked to review the Highway Asset Management Plan (HAMP) process and key areas and provide comments for consideration, prior to seeking Cabinet and Council endorsement.

2. SUMMARY

- 2.1 The Council has a statutory duty to maintain a safe highway network, as set out under the Highways Act, 1980.

The following suite of documents (refer to the Highway Operations Group Framework structure shown in Appendix A), sets out how this statutory duty is fulfilled:

- Highway Asset Management Plan (HAMP) – this sets out how the Council's assets are identified, assessed, inspected, maintained and recorded (most recent version is in Appendix B).
 - Highway Maintenance Plan (HMP) – this sets out the maintenance regimes of the highway assets and the Highway Operations criteria for this to take place (highways, footways, bridges, drainage, winter maintenance, etc.) – this has a direct link to the HAMP
 - Highway Operations Plan (HOP) – this document sets out how the Highway Operations team carry out tasks that do not have a direct connection with the Council's highway assets (out-of-hours duties, utility works inspections etc.)
- 2.2 Members are asked to scrutinise the process and overall content, then to provide comment prior to seeking endorsement by Cabinet and Council.

3. LINKS TO STRATEGY

- 3.1 This report links directly to the regeneration of the county borough making Caerphilly County Borough a better place to live and work.
- 3.2 The report links directly to the Council's priority to improve accessibility throughout the county borough by improving the transport network, enabling individuals to move freely around Caerphilly.

- 3.3 There is also a link to ensuring communities are safer by maintaining a safety standards for the development of integrated, efficient local and regional transport system, on which public transport, private users, cycling and walking networks can operate.
- 3.4 The Well-being of Future Generations (Wales) Act 2015 came into force this April, it sets out seven Well-Being Goals; the focus of this report supports a Resilient Wales, A Prosperous Wales, A Wales of Cohesive Communities and a Globally Responsible Wales

4. THE REPORT

- 4.1 The Council has a statutory duty to maintain a safe highway network as set out in the Highways Act, 1980. The methodology which sets out how the Council's duty is fulfilled is detailed within a suite of documents that sit under an overall framework.
- 4.2 The CCBC Highway Asset Management Plan (HAMP) is one of the three plans that make up the Highway Operations Group Framework, the others being the Highway Maintenance Plan (HMP), which includes the Winter Maintenance Plan (reviewed in Scrutiny 28th June 2016), and Highway Operations Plan (HOP).
- 4.3 The HAMP is a strategic approach that identifies all the highway assets that are the responsibility of the highway authority (i.e. the Council) and it assesses their status and condition, determines and implements the most appropriate maintenance regime within the most efficient cost parameters. The aim of this assessment is to ensure that each asset is maintained to an optimum level within an effective budget envelope.
- 4.4 The purpose of this plan is to ensure that the highway asset is managed with a strategic and cost effective approach, so that maximum value for money is achieved. Consequently it links in with the Corporate Asset Management Strategy 2016-26, so consistency with its Principles can be maintained throughout the HAMP.
- 4.5 The HAMP consists of:
- a) A Policy Statement – to outline the Authority's approach and duties towards highway asset management.
 - b) Asset Registry – for asset description, current status and historical information, this is so asset performance can be assessed.
 - c) Revision processes to update the Asset Register (from internal staff to external third parties) – to review asset valuation, re-assess risks to assets and allow for re-prioritisation.
 - d) Programme of investment – to be led by the updated data and information in the Asset Register thereby, improving the asset performance in an economically effective manner.

There must also be a link to the Maintenance Manual – Highway Maintenance Plan (HMP) – for service standards, planned actions and maintenance regimes (formed as a separate but related plan under the Highway Operations Group Framework).

- 4.6 The HAMP is used for Highway assets, which consist of:
- Adopted carriageways
 - Adopted footways
 - Adopted street lighting
 - Drainage for highways
 - Structures that are adjacent to, over or under the highway
 - Vehicle Restraint Systems (VRS) and Fencing
 - Traffic Signals/ Road crossings
 - Bus stops/ Bus stations
 - Road furniture – Signs, road markings, cat's eyes, bollards etc.

- 4.7 The purpose of the HAMP is to provide an overview of the asset management for highway infrastructure maintained by CCBC. It offers relevant information and data for any respective asset enquiry and how this is updated and reviewed; for this the working process is divided into four parts:
- Part 1 – gives an overview and basis for the highway asset management plan (HAMP)
 - Part 2 – summarises how the plan is put together and how revisions are made
 - Part 3 – shows how and where the information and data is stored
 - Part 4 – explains the mechanisms that are used by the plan including performance and stakeholder feedback
- 4.8 The HAMP details highway assets with the relevant information and data for their identification and maintenance requirements:
- Carriageways & Footways – location, length, width, asset condition, construction design, resurfacing dates
 - Street Lighting – identification, location, asset condition, lighting type (LED, SOX etc.), installation dates
 - Highway/ Land drainage – location, diameter, depth, construction type (clay, plastic etc.), installation and/ or repair dates (under development for highway drainage)
 - Highway structures – location, dimensions, construction materials, asset condition, repairs carried out (with dates)
 - VRS and Fencing – location, construction materials, asset condition, ownership issues, installation/ repair dates (under development)
 - Traffic signals/ Road crossings – location, design data, installation date, asset condition
 - Bus stops/ Bus stations – location, installation date, construction materials, asset condition
 - Road furniture – location, construction materials, asset condition, installation date (under development)
- 4.9 This document is reviewed on an annual basis, to ensure the references and processes are kept updated, providing an up to date asset inventory of our highway network.
- 4.10 The information and data is updated via a number of channels including:
- Regional and Local Transportation Strategies
 - Local Development Plan
 - Highway Operations Group framework
 - Gazetteers – catalogues of asset information and data
 - Annual Group Service Plan
 - Maintenance Inspections and Works
 - Council Developments
 - Local Developments
 - Updates and enquiries from the General Public
 - Public Surveys (Caerphilly Household, SNAP surveys etc.)
- 4.11 The HAMP can be used in a number of ways, dependant on the user. The main functions are:
- i. Asset information – asset condition, installation/ construction dates (with methods and materials), treatment or repair dates etc.
 - ii. Asset maintenance planning – what and when last treatment/ repairs had taken place with expected design life/ programmed maintenance works required.
 - iii. Asset valuation – the relative value of the asset function and the potential cost (direct and indirect) of replacement/repair.
 - iv. Asset Registration – to ensure a comprehensive and up-to-date record of CCBC assets.

In terms of asset value, the most recent valuation of the Council's highway network has concluded that the 1,193 km of highway, with its associated infrastructure, is valued at £3,424,683,000.

- 4.12 Of these sections there are a number of HAMP aspects that officers would welcome the views from the committee, as they cover key issues within the HAMP, these being:
- a) **The placement of the HAMP within the Highway Operations Group Framework** (in Appendix A); have the right relationships been identified within the document structure? Are there additional links that could be made to the HAMP outside the Highway Maintenance Plan?
 - b) **Have all aspects of highway asset management been covered by the HAMP?** Is there anything else missing from the HAMP sections summarised in 4.4? Are there highway asset types that are missing from 4.5?
 - c) **Are there communication channels that have yet to be identified in 4.9 that could give valuable updated information about highway assets to Highway Operations?**

5. EQUALITIES IMPLICATIONS

- 5.1 A functional and accurate Highway asset register and associated operations will benefit the vulnerable, young and elderly, ensuring their services (including emergencies), providing all highway assets with a robust maintenance regime throughout the year.
- 5.2 Being more effective in maintaining the CCBC highway assets should lead to improvements in maintenance regimes and incorporate improvements that leads to an effective transport network so benefiting the less mobile/ vulnerable members of the community.

6. FINANCIAL IMPLICATIONS

- 6.1 The Highway valuation is produced on an annual basis for a submission made to the Welsh Government every June.
- 6.2 The valuation consists of the following categories:
- Carriageways
 - Footways
 - Structures
 - Street Lighting
 - Street Furniture
 - Traffic Management Systems
 - Land

The total valuation for these elements for the most recent submission (2015 -16) was £3,424,683,000 (as of March 2016).

- 6.3 From the total figure in 6.2, the Highway Asset (the total asset value minus the land value) gives a total valuation of £1,920,005,000. This valuation represents the amount of money that would be required to replace the entire asset at today's value (excluding land purchase costs) and so represents the largest asset of CCBC.
- 6.4 This valuation forms part of a series of submissions to the Welsh Government, which include depreciation values of the assets as they degrade through continual use; a summary is contained within the appendix to the HAMP (Appendix B). These valuations then guide the Council on the levels of investment needed to maintain the highway asset within the County boundaries for the following year. It will also be used to support infrastructure bids, so forming a justification base for future national grants and government loans (reference to the recent LGFI initiative of 2012-15).

7. PERSONNEL IMPLICATIONS

7.1 There are no direct personnel implications in relation to this report.

8. CONSULTATIONS

8.1 All comments received have been taken into consideration and are included in the report.

9. RECOMMENDATIONS

9.1 For Scrutiny Members to comment on the content and annual review process for the HAMP, considering the key issues as outlined in 4.11.

9.2 To consider and offer comments in relation to the existing HAMP, prior to consideration by Cabinet and Council.

10. REASONS FOR RECOMMENDATIONS

10.1 To provide comments and views with regards to the existing HAMP, prior to approval by Cabinet and Council.

11. STATUTORY POWER

11.1 Highways Act 1980.
Well-being of Future Generations (Wales) Act 2015.

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Consultees: Cllr T Williams – Cabinet Member for Highways, Transportation & Engineering
Cllr D T Davies – Chair of Regeneration and Environmental Scrutiny Committee
Cllr E Aldworth – Vice Chair of Regeneration and Environmental Scrutiny Committee
Chris Burns – Interim Chief Executive
Christina HARRY - Corporate Director – Communities
Nicole Scammell - Acting Director of Corporate Services and S.151
Terry Shaw – Head of Engineering Services
Colin Jones - Head of Performance & Property Services
Gail Williams – Interim Head of Legal Services/Monitoring Officer
Stephen Harris – Interim Head of Corporate Finance
Rob Hartshorn – Head of Public Protection
Mike Eedy – Finance Manager
Trish Reardon – HR Manager
Anwen Rees – Senior Policy Officer – Equalities and Welsh Language
Steve Hodges – Network Management Manager
Andrew Southcombe - Finance Manager (Corporate Services)

Appendices:

Appendix A – Highways Operations Group Framework

Appendix B – Highway Asset Management Plan (HAMP)

HIGHWAY OPERATIONS GROUP FRAMEWORK

Introduction

Highway Operations Group have the responsibility of maintaining the highway and associated infrastructure for Caerphilly County Borough Council, covering an asset that collectively amounts to £2 billion. Its principal purpose is to:

- ❖ Protect and maintain the highway network.
- ❖ Ensure safe, effective use and development of the highway network.
- ❖ Develop and deliver a range of engineering projects to improve the highway
- ❖ Deliver integrated and sustainable transportation and engineering projects.

The many facets of Highway Operations means that the processes and procedures can be both distinct and overarching, leaving the need to both identify the functions within the Group and consolidate them into distinct areas of work. To this end a framework has been produced to form the structure on which these areas of work can be placed, giving a comprehensive overview of the extent and nature of the work that is carried out by the Highway Operations Group. The division of the Framework is as follows:

- Asset Management Plan – how the Council’s assets are identified, assessed, inspected, maintained and recorded
- Highway Maintenance Plan – how Highway Operations maintain the highway assets (highways, footways, bridges, drainage etc.)
- Highway Operations Plan – how Highway Operations carry out tasks that do not have a direct connection with the Council’s highway assets (out-of-hours duties, utility works inspections etc.)

These headings are then subdivided where the function covers an extensive area, such as Highways Inspection and Winter Maintenance. Further these areas will overlap with other areas such as Standby duties and NCS. In these cases the principal operational document will detail the duplicated practices/ process/ procedure and the more bespoke work area will be referenced in the appropriate section(s).

Whilst each document will be written on a stand-alone basis; reference to other will be frequently made. Each document will be formed on the basis of:

- What we do
- Why we are doing it
- How we are doing it
- The authorisation required to do the work
- The mechanism for review and alteration of the document
- Lead officer responsible for the document
- Specific training needs

KEY:

- Document to be reviewed
- Document under separate review
- Documents pending review

HIGHWAY OPERATIONS GROUP FRAMEWORK

HIGHWAY ASSET MANAGEMENT PLAN

HIGHWAY MAINTENANCE PLAN

HIGHWAY OPERATIONS PLAN

HIGHWAY INSPECTION MANUAL

Staff set up
Inspections/
Frequencies
Actions
undertaken
Recording
and
registration

TIPS MAINTENANCE & RECYCLING

Staff set-up
Programme
annual and 15
year cycle
Sequence of
works
Existing types
and methods
of recycling
segregating
waste &
materials
Assessment
of processes
New
proposals

DRAINAGE MAINTENANCE

Drains &
Gullies:
Staff set up
Inspections
Works
undertaken

STRUCTURES

Bridges
Retaining
Structures
Culverts

PLANNED WORKS

Assessing
carriageway
/ footway
Resurfacing
/ surface
dressing
Slurry
sealing
Assessment
and
processing
of existing /
new VRS
Procedure
for works
undertaken

STREET LIGHTING

Staff
organisat'n
Asset
mainten'ce
function
Inspections/
frequencies
Activities
and works
carried out
Registration
and
recording
Initiatives

WINTER MAINTENANCE PLAN

Staff
Organisation/
set-up
Functions of
Winter
Maint'ce
Inspection/
detection
Route/
Actions
prioriti'n
Works
processes
and
frequency

NCS DUTIES

Maint'ce
duties
Footways
Structures
SEW
Contract

STANDBY DUTIES

Shift
arrange'ts
Require'ts
for duties

LICENSES

Staff set up
Inspections
Notification
Penalties

UTILITIES & NRSWRA DUTIES

Staff set up
Inspections
Actions
undertaken

BUILDING & DEPOT MANAGEMENT

System set
up
Inspections/
Frequencies
Actions
undertaken
Recording
and
registration

CAERPHILLY COUNTY BOROUGH COUNCIL HIGHWAY ASSET MANAGEMENT PLAN





Highway Asset Management Plan

1. Introduction

Highway Operations Group have the responsibility of maintaining the highway and associated infrastructure for Caerphilly County Borough Council, covering an asset that collectively amounts to £2 billion. Its principle purpose is to:

- ❖ *Protect and maintain the highway network.*
- ❖ *Ensure safe, effective use and development of the highway network.*
- ❖ *Develop and deliver a range of engineering projects to improve the highway*
- ❖ *Deliver integrated and sustainable transportation and engineering projects.*

The basis of this remit is for the highway assets (that are the responsibility of CCBC) to be identified and assessed, so the required maintenance can be enacted in a timely manner within an effective economic framework. For this, the Authority requires a Highway Asset Management Plan (HAMP).

a. What is an Asset Management Plan

An Asset Management Plan (AMP) is defined as:

"A plan developed for the management of one or more infrastructure assets that combines multi-disciplinary management techniques (including technical & financial) over the life cycle of the asset in the most cost effective manner to provide a specific level of service"

The International Infrastructure Management Manual - 2008.

The plan's objectives are to optimise the performance of the assets, in a cost-effective and operationally efficient way; the AMP typically covers the following areas:

- Asset Description – why does it exist
- Current Asset Performance – what is its current status
- Standard of Service – what it is required to do
- Planned Actions – what are the asset requirements
- Costs – its whole life costs
- Benefits/ Risks – linked to Costs
- Potential Improvements – how can the asset be improved

b. Highway Asset Management

Highway asset management is defined as:

“Asset management is a strategic approach that identifies the optimal allocation of resources for the management, operation, preservation and enhancement of the highway infrastructure to meet the needs of current and future customers”

County Surveyors Society Framework for Highway Asset Management, CSS, 2004.

Highway asset management is used to ensure that public infrastructure is managed cost effectively and that every penny spent on the asset is put to the best use. This is best done in the format of a Highway Asset Management Plan (HAMP)

The HAMP should consist of:

- a) A Policy Statement – to outline the Authority’s approach and duties towards highway asset management
- b) Asset Registry – for asset description, current status and historical information so asset performance can be assessed.
- c) Maintenance Manual – Highways Maintenance Plan (HMP) – for service standards, planned actions and maintenance regimes – this is a separate document from the HAMP and is contained within the Highway Operations Group Framework, a plan of which can be found in Appendix B
- d) Revision processes to update the Asset Register (from internal staff to external third parties) – to review asset valuation, re-assess risks to assets and allow for re-prioritisation
- e) Programme of investment – to be led by the updated data and information in the Asset Register (ref. b above), improving the asset performance in an economically effective manner

The HAMP is used for Highway assets, the main categories for these being:

- Carriageways - adopted
- Footways - adopted
- Street Lighting - adopted
- Drainage for highways
- Structures that are adjacent to, over or under the highway
- Vehicle Restraint Systems (VRS) and Fencing
- Traffic Signals/ Road crossings
- Bus stops/ Bus stations
- Road furniture – Signs, road markings, cat’s eyes, bollards etc.

This list is not exhaustive but gives the main categories from the Highway Asset Register for Caerphilly County Borough Council (CCBC).

Assets not covered by the Caerphilly HAMP:

- Trunk Roads – A465 (managed by South Wales Trunk Road Agent - SWTRA)
- Public Rights of Way and bridleways (part of Planning’s responsibility)
- Unadopted Roads and footways

- Unadopted rear lanes
- Boundaries to highway land that fall under the other ownership
- Car-parks
- Canal

c. Uses of the Highway Asset Management (HAMP)

- Effective use of existing budgets ⁽⁶⁾
- Exploring effective levels of service and budget options ⁽⁶⁾
- Formalisation of service standards and policies
- Monitoring and reporting on performance ^{(2) (3)}
- Identifying customer expectations and aspirations ⁽⁴⁾
- Providing a longer term maintenance regimes ⁽¹⁾
- Establishment of efficient works programmes ⁽⁵⁾

The figures in raised parenthesis indicate the Principles as listed within the Corporate Asset Management Strategy 2016 – 26, these being:

- 1. We will balance short term needs with the need to safeguard the ability to meet long term generational needs, where those long term needs are identifiable.*
- 2. We will communicate what we are doing and the progress we have made*
- 3. We will involve other persons in the development of our asset management strategies/plans to reflect the diversity of the people within the county borough*
- 4. We will work with other public services bodies to deliver (where possible) both joint asset management solutions, and complementary goals.*
- 5. We will seek to improve the quality of our environment through good asset management by ensuring our resources are deployed effectively.*
- 6. Quality of life and fit for purpose assets will be our main consideration, within imposed financial constraints.*

These will be repeated throughout the rest of this document where appropriate.

d. How to use the Highway Asset Management Plan (HAMP)

The purpose of this document is to provide an overview of the Asset Management for highway infrastructure maintained by CCBC. For this to be of use the reader needs to know where to find the relevant information to their enquiry, so this plan is divided into four parts:

Part 1 – gives an overview and basis for the highway asset management plan (HAMP)

Part 2 – summarises how the plan is put together and how revisions are made

Part 3 – shows how and where the information and data is stored

Part 4 – explains the mechanisms that are used by the plan including performance and stakeholder feedback

2. How Caerphilly's Highways Asset Management works

a. The interactions of the Asset Management Plan

The Caerphilly's Highway Asset Management Plan has interactions and inputs from a number of other source documents; this can be most clearly seen in a graphical representation as follows



Figure 1: The titles encircled with the blue lines are source documents with the arrows indicating input into the HAMP and overlapping shapes showing a sharing of information and data.

b. What's in the Highway Asset Management Plan

The HAMP consists of the highway assets with the relevant information and data for their identification and maintenance requirements:

- Carriageways & Footways – location, length, width, asset condition, construction/resurfacing dates
- Street Lighting – identification, location, asset condition, lighting type (LED, SOX etc.), installation dates
- Highway drainage – location, diameter, depth, construction type (clay, plastic etc.)
- Highway structures – location, dimensions, construction materials, asset condition
- VRS and Fencing – location, construction materials, asset condition, ownership issues
- Traffic signals/ Road crossings – location, installation date, asset condition
- Bus stops/ Bus stations – location, installation date, construction materials, asset condition
- Road furniture – location, construction materials, installation date, asset condition

c. How does the Highway Asset Management Plan work

The HAMP can be used in a number of ways, dependant on the user, the main functions are:

- i. Asset information – asset condition, treatment or repair dates etc.
- ii. Asset maintenance planning – what and when last treatment/ repairs had taken place
- iii. Asset valuation – the relative value of asset function and the potential cost (direct and indirect) of replacement/ repair
- iv. Asset Registration – to ensure a comprehensive and up-to-date record of CCBC assets ⁽²⁾

This helps ensure that CCBC can benefit from:

- Effective use of existing budgets
- Effective levels of service and budget options
- A formalisation of service standards and policies
- Monitoring and reporting on performance ⁽²⁾
- Providing a longer term maintenance regimes ⁽¹⁾
- Establishment of efficient works programmes

d. Updating of the Highway Asset Data

This is mostly done via the adoption process through Highways Development or private developers; this process is where the asset is constructed to the approved standard and the maintenance for this asset is then transferred to the Council. Consequently this increases the assets quantity or length held on the Caerphilly Asset Registers which form the basis of the HAMP.

The converse of this is to remove assets from the register; this can be done through a legal closure for safety reasons covering a designated period of time, which is enacted when an asset cannot be economically maintained to the approved standards. Though currently rare its occurrence will probably become more frequent as the funds to maintain highway assets are reduced via the Medium Term Financial Plans (MTFPs) for the next 4-5 years.

e. Updating via Feedback from Stakeholders ⁽³⁾

The general public can update the asset register by using the Service Request (SR) mechanism, were an individual can report faults (to street lighting, gullies etc.) via the web-site, phone or e-mail.

There are also a number of surveys that involve the general public, the Household survey (bi-annual) and the SNAP Survey by Refuse & Cleansing (biannual), these give a wide range of feedback stakeholder feed-back from a range of council services. A proportion of which covers the following highway asset groups:

- Roads
- Pedestrian pavements
- Drains & gullies
- Signs & road markings
- Street Lighting
- Winter Maintenance
- Highway Maintenance

All of which are directly or indirectly related to highway assets, so contribute to the assessment of the perceived asset performance, which is amalgamated with the more technical results, to give a more appropriate approach to their prioritisation and maintenance.

3. Highway Asset Management Plan Information and Data

a. What is an Highway Asset Register

The asset data and information is held on what is called an Asset Register (mostly in an electronic version, though some historic information is held on physical copies as well); this is ideally on a single data base, though due to the varying nature of the assets (road, structures, lighting columns etc.) this can prove impractical. As an alternate the data bases have been unified where possible, for example Mayrise for highways and street lighting, leaving asset groups with more bespoke information, drainage, structures etc., are compiled on their own clearly identified registries.

b. Where is the HAMP located

The HAMP is formed of constituent parts that cross reference the Highway Asset Management Plan and the Highway Asset Register, a summary of this can be expressed in matrix form as follows:

| Asset Categories HAMP Sections | Carriageway & Footway | Street Lighting | Drainage | Structures | VRS & Fencing | Road crossings | Bus stops/ stations | Road furniture |
|---|--|--|-------------------------------|--|---|-----------------------|-------------------------------------|-----------------------|
| <i>Description</i> | GIS plans & Inspection data/ NSG gazetteer | Mayrise Street lighting | GIS data Geo environment | R/Wall & Bridges Database (Access) – O Drive | GIS plans | Under review | Inventory of all shelters – O Drive | Under review |
| <i>Performance</i> | Scrim, scanner & highway inspections | Mayrise Street lighting | Service Requests, Inspections | Inspection reports | Inspections, reports | Inspection reports | Cleansing reports - O Drive | Inspections, reports |
| <i>Service</i> | Inspections | Mayrise Street lighting | Service Requests, Inspections | Highway Structures SLA | Inspections, reports | Inspection reports | Maint'ce orders Record - O Drive | Inspections, reports |
| <i>Planned Actions</i> | Inspections | Mayrise Street lighting | Service Requests, Inspections | Programmes word and excel - O Drive | Scored on national spec & local knowledge | Inspection reports | Requests and complaints – O Drive | Inspections, reports |
| <i>Costs</i> | Works tickets, tenders and SORs | Mayrise Street lighting | Service Requests, Inspections | R/Wall & Bridges Database (Access) – O Drive | Framework tender | Inspection reports | Maint'ce orders Record - O Drive | Inspections, reports |
| <i>Risks</i> | HAMP Insurance Risk reports | Mayrise Street lighting & Insurance risk | Service Requests, Inspections | Prioritisation sheets - O Drive | Inspections, Insurance Risk reports | Inspection reports | Requests and complaints – O Drive | Inspections, reports |
| <i>Improvements</i> | Under review | Under review | Under review | Bridge Database - O Drive | Under review | Under review | Under review | Under review |
| <i>Asset Owner</i> | Gareth Richards & Chris Adams | Steve Hodges | Gareth Richards | Jacqui Mynott | Chris Adams | Dean Smith | Huw Lewis | Chris Adams |

Each of these locations holds the up to date information and data for each asset class, with restricted editing rights going to authorised personnel.

c. Information Usage

These databases can be used to assess the Council's assets for:

- Asset valuation
- Effective asset maintenance
- Asset performance
- Prioritisation of asset repair and maintenance
- Record of asset history for future requirements

d. How is this information updated

The updating of asset information can originate from various sources, the main categories being:

- Highway schemes
- Private development adoptions
- Council funded schemes ⁽⁴⁾
- Urban renewals schemes ⁽⁴⁾
- Structural repairs/ replacements
- Drainage schemes/ improvements
- Infrastructure repairs
- Input from third parties (e.g. general public via the Service Requests (SRs) ⁽³⁾

In addition, previously unidentified assets can be assigned to the Council or reallocated within the Council's divisions and service areas.

4. How the Highway Asset Management Plan works – mechanisms

a. Valuation ⁽²⁾

As the CCBC's HAMP collates and records the updated condition and description of the highway assets in the Council's remit, this can prove a useful basis on which to secure a valuation of the known assets, which can then be compiled to a complete itinerary. This is routinely done as an annual submission to Welsh Government (WG) under an 'L-Pack' submission (a summary of which can be found in Appendix 1).

There are other valuations asked for from other bodies on a regular basis, such as APSE (Association for Public Service Excellence), the ALARM (Annual Local Authority Road Maintenance) survey; where the returns are segregated into peer council organisation groupings, to allow an assessment of relative asset performance.

b. Performance Indicators ⁽²⁾

The performance of the Council is measured and coordinated via the Fynnon system, part of this covers Highway Operations both with highways functions (reactive maintenance, winter gritting etc.) and a suite of performance indicators that are directly tied to the highway asset and their condition, ready examples being the results from road and structural surveys.

These can give indication via scoring mechanisms that allow for comparative assessments of the asset performance, i.e. how effectively the asset is fulfilling its function; so how well a road is carrying the traffic load, how effectively a drain is carrying the water away from the location etc.

c. Prioritisation of Highway Asset Maintenance ⁽⁴⁾

The budgetary constraints placed on public bodies means that responsibilities such as highway assets need to be prioritised so that the limited finances can be focused on where the need is greatest. This entails a process by which the assets within a group can be measured, scored and assessed for their condition and relative performance, so a prioritised table can be drawn up and the funds can be effectively allocated to the assets that are most in need of repair/ enhancement, rather than that being spread evenly over the asset stock (which would not achieve any meaningful improvement).

d. Assessing Routine Maintenance Regimes ⁽⁶⁾

As the HAMP encompasses the condition and the requirement for an asset to be maintained to an acceptable standard, recording activities such as inspections and prioritising (through identifying poor performance) sites with assets that require timely investment. The effectiveness of routine maintenance can be assessed and possible efficiencies can be identified to improve these activities and their relative costs.

e. Programming of Works ^{(4) (5) (6)}

Highway assets can be evaluated on their condition and performance, highlighting poor or substandard levels which require action to correct or improve their status. This then forms the basis for a programme of works and help concentrate funds to the least reliable sections of the asset register and possibly helps enhance or improve their performance to the standards required.

f. Capital Improvements ⁽⁵⁾

There are opportunities for Councils to bid for and win capital funding via central government through loans and grants. This has moved to an evidence based approach from the sponsors. The use of the HAMP will give a consistent and empirical base on which to set out these bids, so relative comparisons can be made both within the Council boundaries and across other peer public bodies, such as other Welsh Local Authorities. The more complete and comprehensive the council's HAMP (when compared to peer organisations), the more confidence a sponsor will have in awarding these loans and grants.

Appendix 1

Summary of Welsh Government Valuations

- 1.1 The Highway valuation is produced on an annual basis for a submission made to the Welsh Government every June.

The valuation consists of the following categories:

- Carriageways
- Footways
- Structures
- Street Lighting
- Street Furniture
- Traffic Management Systems
- Land

The total valuation for these elements for the most recent submission (2015 -16) was £3,424,683,000 (as of March 2016).

- 1.2 From the total figure in 1.1, the Highway Asset (the total asset value minus the land value) gives a total valuation of £1,920,005,000; due to the asset being in a continuous deteriorating state (being constantly used throughout the year), a depreciation value of this asset has been calculated out as £1,713,112,000. This shows a decrease in real terms (actual compared to theoretical value) of £206,893,000, when compared to the previous year the following table can be derived:

| Change in Highway Asset Value | | |
|--------------------------------------|---|---|
| Year | Gross Replacement Cost £'000 | Depreciated Replacement Cost £'000 |
| 2014-15 | £1,783,336 | £1,572,422 |
| 2015-16 | £1,920,005 | £1,713,112 |
| Change | £136,669 | £140,690 |

The Gross Costs are the total cost of replacing either the whole of an existing highways network or some part of it with a modern equivalent Asset; the Depreciated Costs is a method of valuation which provides the current cost of replacing an asset with its modern equivalent asset, as defined in the code, less deductions for all physical deterioration and all relevant forms of obsolescence and optimisation.

The table (above) shows that with both the gross costs (costed as newly constructed replacement assets) and the depreciation value (value of the existing asset) show a year on year increase in cost of infrastructure renewal of approximately £136,670,000. This annual increase in costs dwarfs the current annual highway operations budget of approximately £10,000,000; so up-to-date asset assessments need to be conducted, on a frequent enough basis, to deliver the most financially effective maintenance regime.