Caerphilly County Borough Council

Highway
Asset Management Plan

Annual Status and Options Report

October 2012

Caerphilly County Borough Council
Highways Asset Management Plan
Annual Status and Options Report

Introduction

This report presents a summary of the council's road assets as at November 2012. It

- Describes the current condition of the asset
- Details the service that the asset and current budgets are able to provide
- Presents the options available for the future

The report complements the Highway Asset Management Plan (HAMP). It provides information to assist with budget setting for highways.

Status

The status of each asset group is provided in terms of current condition, the output that are delivered, the standards being achieved and, where possible, an indication of customer satisfaction.

Options

The report considers the following options:

- -- A continuance of current highway maintenance funding levels
- A continuance of current funding levels including the extra LGBI funding for the next three years
- The predicted conditions with no planned maintenance
- The predicted cost of maintaining current standards

Long Term Forecasts

Highway assets deteriorate slowly. The impact of a level of investment cannot be shown by looking at the next couple of years. The report includes 20 year forecasts to enable decisions to be taken with an understanding of their long term implications.

Impacts Risk

To reflect continuing budgetary pressures the report contains an assessment of the impact for each option presented. In some instances however the level of detail of assessment is currently hindered by an absence of data.

Caerphilly County Borough Council
Highways Asset Management Plan
Annual Status and Options Report

1. Carriageways

2.1 Status Report

The Asset

The council's carriageways assets are made up of:

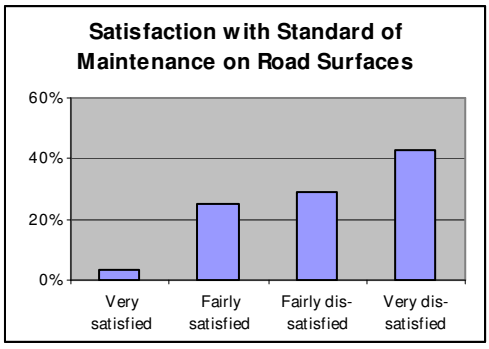
Classification	Urban (km)	Rural (km)	Asset growth
A	34.4	72.5	Over the last 5 years the carriageway asset has grown by 23.3 km, (2.1%).
B	49.1	9.7	
C	76.3	76.2	
U	675.2	148.9	
Total	835.0	307.3	1,142.3 km at April 2012.

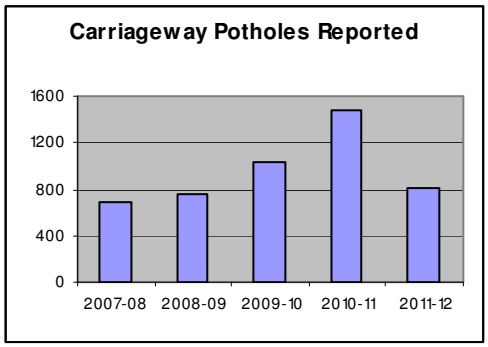
Current Value

In August 2012 the value of the carriageway asset, gross replacement cost (GRC) was £1,117.1m and depreciated replacement cost (DRC) was £1,017.3m. An annualised depreciation (AD) of £7.5m was calculated. AD is the average amount by which the asset will depreciate in one year if there is no investment in renewal of the asset.

Customer Satisfaction

In the most recent public survey in 2011 only 28% of respondents were satisfied with the standard of maintenance on road surfaces.





From 2007 to 2012 the number of service requests regarding carriageway potholes increased by over 100% but this figures decreased by 45% in 2011-12 to give the lowest figure since 2009.

Caerphilly County Borough Council
Highways Asset Management Plan
Annual Status and Options Report

Measured Condition

The condition of the carriageway is measured annually using the scanner survey method. The results provide an indication of the condition of the carriageway and how it is changing over time. The results from the last 4 years are shown below.

Road Condition Results 2008-12										
		2008-2009		2009-2010		2010-2011		2011-2012		Trend
Class	RCI	(Km)	%	(Km)	%	(Km)	%	(Km)	%	
A	>=100	4.9	2.8	6.2	3.6	8.2	5.9	9.8	5.7	
	>=40	31.7	17.9	29.0	17.0	23.5	17.0	31.2	18.1	
	<40	140.6	79.3	135.5	79.3	106.8	77.1	131.7	76.3	
B	>=100	1.6	2.5	2.8	4.2	2.7	7.1	8.8	7.5	
	>=40	12.1	18.6	13.2	19.7	7.8	20.2	29.4	25.3	
	<40	51.5	78.9	51.3	76.1	28.4	72.8	78.0	**67.2**	
C	>=100	11.2	6.7	14.3	8.6	25.8	12.0	26.0	12.4	
	>=40	45.1	26.7	39.3	23.8	30.3	28.1	58.7	28.1	
	<40	112.7	66.6	111.8	67.6	128.7	59.9	123.9	59.4	

Scanner Survey – Unclassified Roads treatment requirements			
Treatment Type	2009-2010	2010-2011	2011-12
Percentage requiring surface dressing	18.5	16.0	*
Percentage requiring inlay	61.5	70.5	*
Percentage requiring no action	20.0	13.5	*

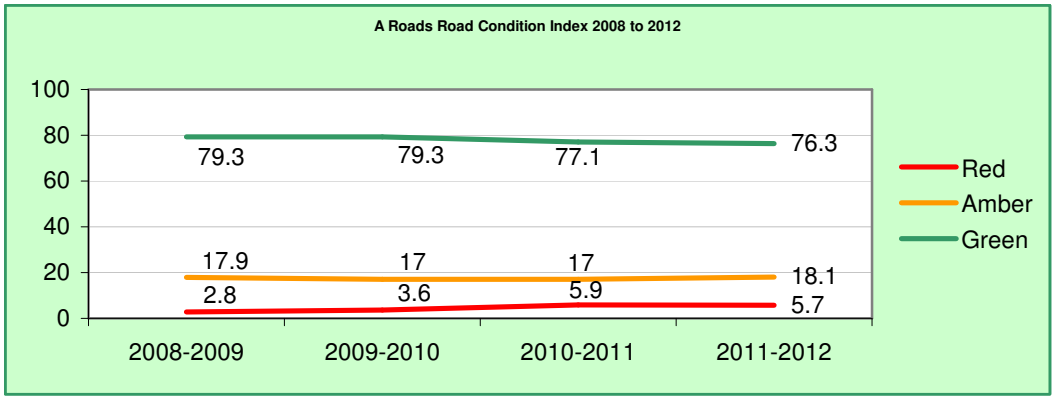
*Results not yet available

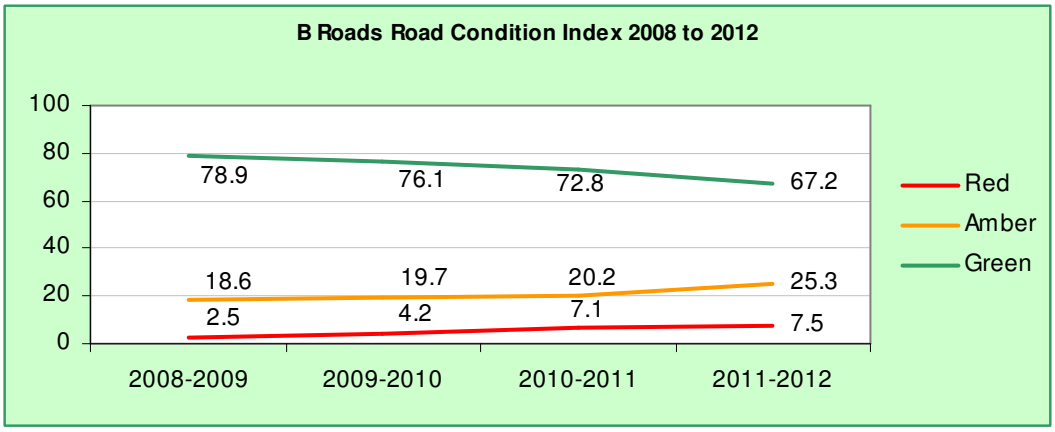
Comment

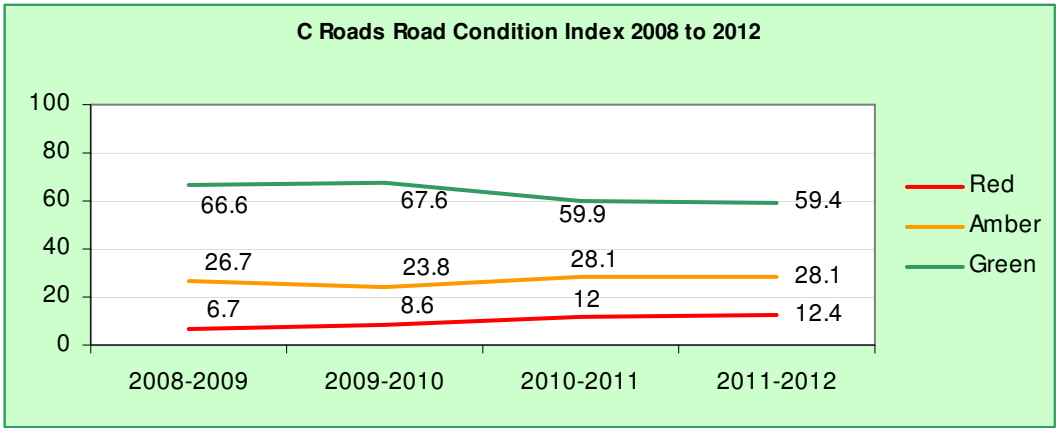
Data supports the conclusion that Caerphilly's highways network is gradually deteriorating. The red levels of B and C roads are deteriorating at about the same rate but the A roads have remained fairly static for the past two years. There are currently concerns over the data on the unclassified network. This is currently being reviewed with Welsh Government and CSS Wales. These types of roads make up almost three quarters of the network.

Measured condition is influenced most greatly by the amount of resurfacing that is undertaken. It is possible for some aspects of carriageway condition such as minor defects to not be fully represented by the measured condition.

Caerphilly County Borough Council
Highways Asset Management Plan
Annual Status and Options Report







Comment

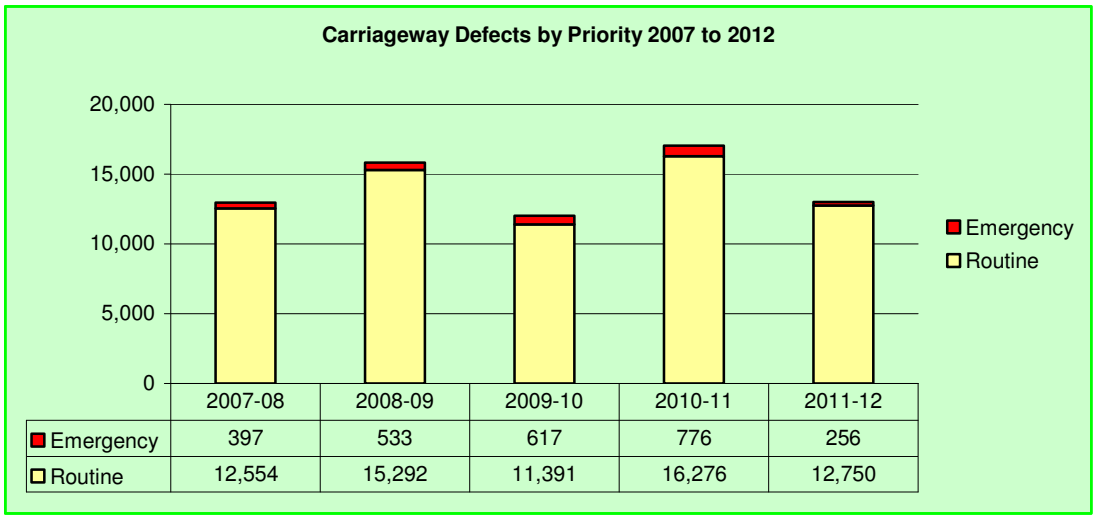
The surveys taken 2008-9 through to 2010-2011 show a slow but steady increase in the red zones (take action) on all classified roads they also show a steadily decreasing amount of these roads in green condition (no action).

The Authorities current target is to resurface 5% of the network annually.

Reactive Repair

Basic safety is delivered via a regime of inspection, identification and classification of defects and repair of defects such as potholes. The following statistics illustrate performance in meeting our standards for reactive repair as detailed in the Highways Inspections Manual.

Indicator	Result 2011-12	Comments
Locally defined target time to make safe a dangerous / hazardous incident	2 hrs	As set out in Highways Inspections Manual and section 58 defence
Number of category one defects identified / reported during year	256	APSE PI figure for Cat 1 defects raised
Number of category one defects identified / reported during previous year	363	APSE PI figure for Cat 1 defects raised
Number of incidents of damage to roads / footways requiring making safe - not full repair (defined as dangerous / hazardous)	228	APSE PI figure for numbers of emergency service requests
Number of incidents above made safe within target time (from the time that the Authority first became aware of the damage).	224	APSE PI figure for numbers of emergency service requests within and outside normal working hours. This result exceeds the target of 95%.
Number of incidents above made safe within 24 hours (from the time that the Authority first became aware of the damage).	224	



	2007-08	2008-09	2009-10	2010-11	2011-12
Emergency	397	533	617	776	256
Routine	12,554	15,292	11,391	16,276	12,750

Comment

The above figures show a decrease in the amount of category 1 repairs carried out over the last two years and a large drop in routine defect repairs. The figures for 2010-11 would include a large amount of repairs following the harsh winter period as the network reacts adversely to the affects of snowfall and freezing temperatures.
The Authorities target time to repair category two defects is 20 working days. The average time for repair in 2011-12 was 23 days and 50% were completed within the target time

Investment and Output Carriageways

Historical investment in carriageways has been as shown below

		Planned		
Year	Routine Reactive (£,000)	Resurfacing (£,000)	Surface Dressing (£,000)	Total (£,000)
2007-08	878	434	31	1,343
2008-09	1,194	817	54	2,065
2009-10	899	1,595	0	2,494
2010-11	1,350	1,097*	1,172*	3,619
2011-12	1,384	1,112#	800#	5,834

* In addition to these amounts there was also capital funding of £420,000 and an extra allocation of £600,000 from reserves
# In addition to these amounts there was also capital funding of £650,000, an extra allocation of £1,500,000 from reserves and £388,000 from NCS surplus
NOTE: All extra allocations are awarded on a year by year basis, are not guaranteed and cannot therefore be considered as regular year on year budgets

Planned maintenance expenditure represents the monies spent on renewals of the asset, as opposed to small scale repairs. In 2011-2012 a total of £4,450,000 was invested in planned maintenance/renewal of the carriageway asset. Although this was an exceptional year it still only amounted to 59% of the estimated annual depreciation of £7,500,000.

Investment in carriageway in the current year (2012-13) is budgeted to be £4,560,000 including £1,200,000 of LGBI funding for carriageway resurfacing. Again this is well below the £7,500,000 estimated annual depreciation.

Caerphilly County Borough Council
Highways Asset Management Plan
Annual Status and Options Report

During 2011-12 the main outputs that the budget was able to deliver were:

Category	Costs	Output
Planned Maintenance - preventative	£1,148k	– 185,000 sqm of surface dressing) (£1,117k) – 37,000 sqm of micro surfacing/slurry (£31k)
Planned Maintenance - Corrective	£3,500k	– 283,000 sqm of resurfacing (£3,500k)
Routine Cyclic Maintenance	£397k	– 32,000 gullies emptied every 6 months, (£304k) – Remarking of lines (£93k)
Routine - Reactive Repairs (emergency)	£406k	– 256 no. cat 1 defect repairs and emergency call outs (£406k)
Routine - Reactive Repairs (non-emergency)	£1,230k	– Over 16,000 potholes and other reactive carriageway repairs (£1,230k)
Routine - Inspection & Survey	£43k	– Condition surveys (£43k)
Insurance claims	£190k	– 117 no 3rd party claims associated with carriageways

*Figures above are works costs and do not include an allowance for overheads

Carriageway Status Summary

Carriageways Status at November 2012
– ↘ annual budget decreasing over time – ↘ reduction (deterioration) of measured condition

2.2 Carriageway Options

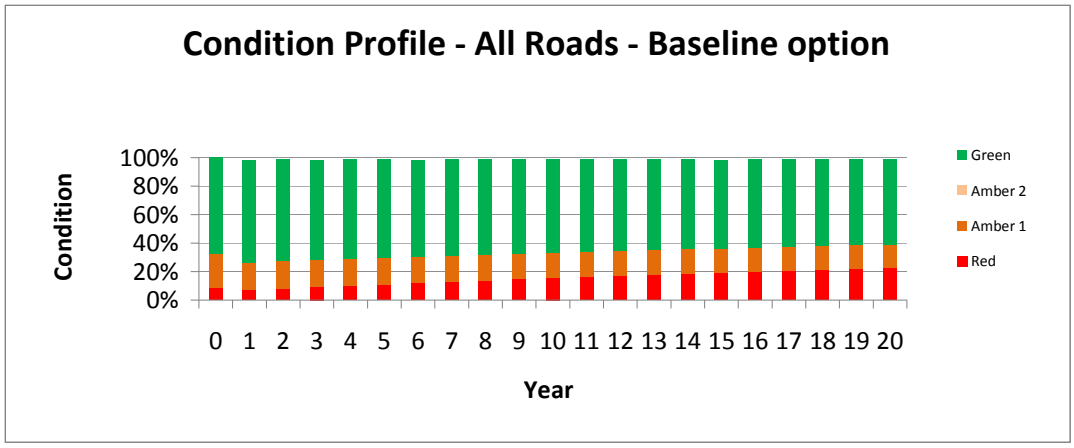
2.2.1 Option C1: A continuance of current highway maintenance budget levels (BASELINE)

Budget

The baseline option comprises a continuance of current highway maintenance funding levels as shown below:

HAMP Cost Category	**Expenditure (£000's)** (2011/12 actual)	**%**
Routine - Reactive Repairs (emergency)	£400k	9%
Routine - Reactive Repairs (non-emergency) - Patching	£1,230k	29%
Routine Cyclic Maintenance	£397k	9%
Planned Maintenance - Preventative	£1,500k	36%
Planned Maintenance - Corrective	£470k	11%
Inspections and survey (not covered under staff costs)	£43k	1%
TOTAL	£4,040k	
Loss (3rd Party Claims associated with (c/ways)	£190k	5%
TOTAL (including claims costs)	**£4,230k**	

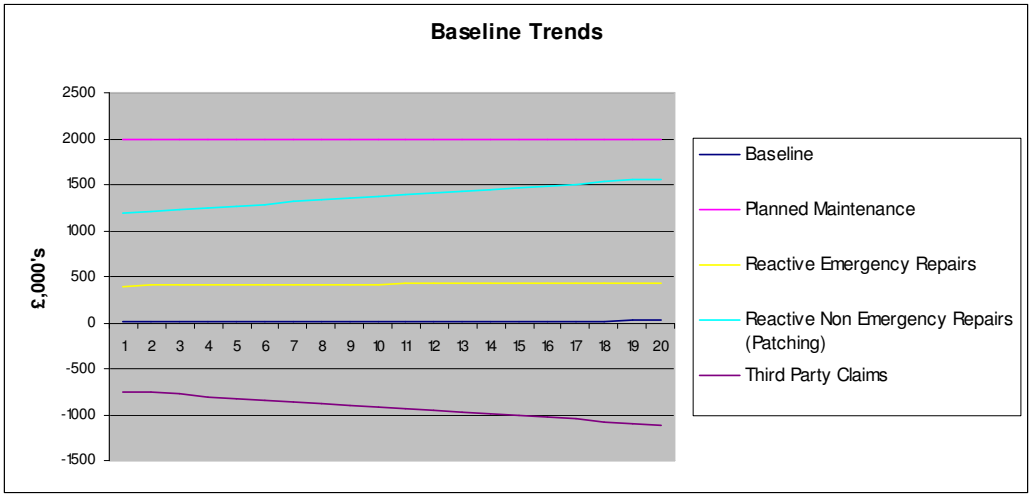
Predicted Condition



The baseline graph above shows that by continuing with only the current maintenance funding the amount of roads in a red condition will reach almost 25% after 20 years.

Predicted Impacts

Reactive Maintenance



The baseline option shows trends of rising routine emergency, non emergency repairs and third party claims. It is predicted that non emergency repairs will increase by almost 30% and emergency repairs by 10%.

3rd Party Claims

It is predicted that claims liability will rise by almost 50%.

Customer Satisfaction

With the condition of the carriageway worsening and the number of reactive repairs increasing it is envisaged that customer satisfaction will decrease.

Future Costs

Based on current budget indications the estimated cost will be £40m over 20 years. This is based on an annual budget of £2.0m which is significantly below the annualised depreciation of £7.5m and is not inflation linked.

Option Summary

The baseline option of a continuance of current funding levels is predicted to result in:

a. ↗ annual budget growing over time to accommodate increasing reactive repairs
b. ↘ reduction (deterioration) of measured condition
c. ↗ increasing quantities of minor defects (pot holes and the like)
d. ↗ potential for increase in 3rd party claims
e. ↘ likelihood of decreased customer satisfaction as a result of increasing repairs

2.2.2 **Option C2: A continuance of current budget levels including additional funding (BASELINE PLUS)**

Budget

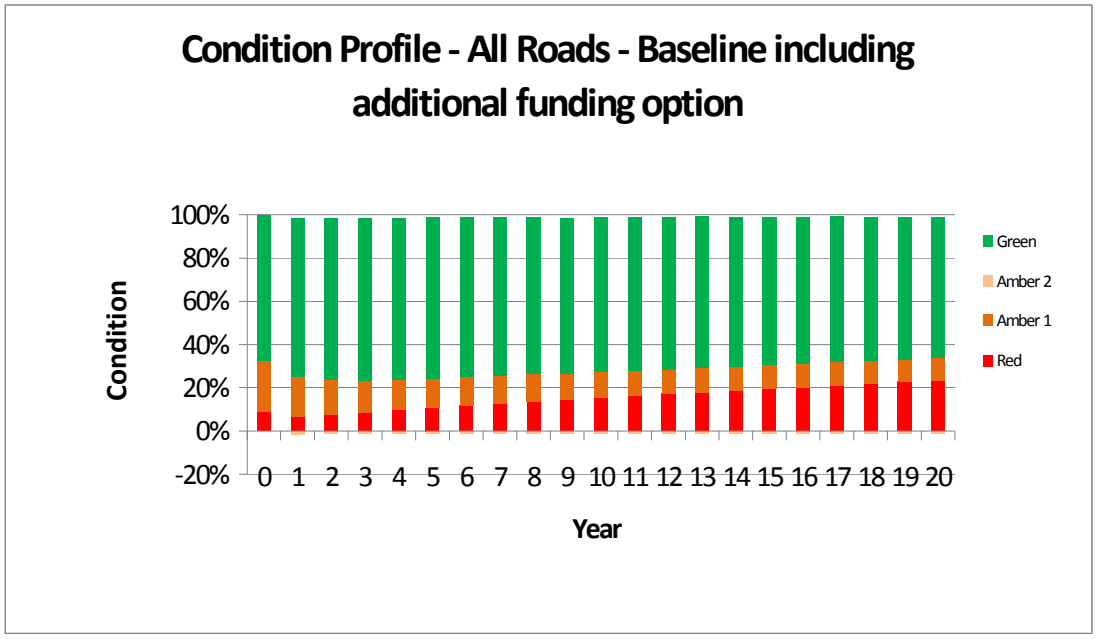
The baseline option comprises a continuance of current funding levels as shown below:

HAMP Cost Category	**Expenditure (£000's)** (2011/12 actual)	**%**
Routine - Reactive Repairs (emergency)	£400k	6%
Routine - Reactive Repairs (non-emergency) - Patching	£1,230k	18%
Routine Cyclic Maintenance	£397k	6%
Planned Maintenance - Preventative	£1,148k	16%
Planned Maintenance - Corrective	£3,500k	50%
Inspections and survey (not covered under staff costs)	£43k	1%
TOTAL	£6,718k	
Loss (3rd Party Claims associated with (c/ways)	£190k	3%
TOTAL (including claims costs)	**£6,908k**	

Comments

In addition to the above amounts there will also be LGBI funding for three years, (2012/13, 2013/14, 2014/15), of £1,200k per annum.

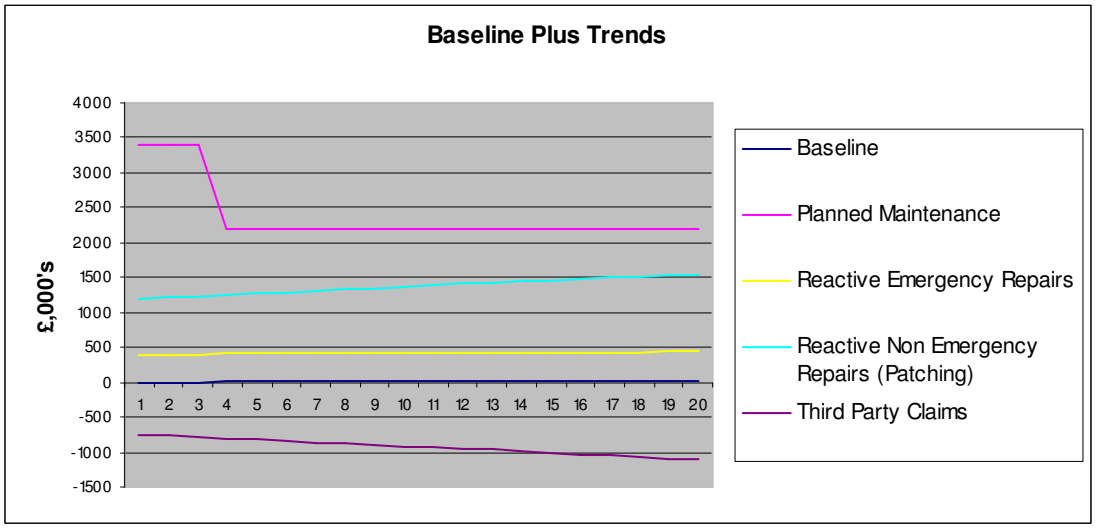
Predicted Condition



The baseline plus graph above includes the extra LGBI funding for years 1 to 3 and changes in the allocation of budget from A & B roads to B & C roads after year 2.

Predicted Impacts

Reactive Maintenance



The baseline plus option shows trends of rising routine emergency, non emergency repairs and third party claims. It is predicted that non emergency repairs will increase by almost 30% and emergency repairs by 10%.

3rd Party Claims

It is predicted that claims liability will rise by almost 50%.

Customer Satisfaction

With the condition of the carriageway worsening and the number of reactive repairs increasing it is envisaged that customer satisfaction will decrease.

Future Costs

Based on current budget indications the estimated cost will be £44m over 20 years. This is based on an annual budget of £2.2m which is significantly below the annualised depreciation of £7.5m and is not inflation linked.

Option Summary

The baseline option of a continuance of current funding levels is predicted to result in:

f. ↗ annual budget growing over time to accommodate increasing reactive repairs
g. ↘ reduction (deterioration) of measured condition
h. ↗ increasing quantities of minor defects (pot holes and the like)
i. ↗ potential for increase in 3rd party claims
j. ↘ likelihood of decreased customer satisfaction as a result of increasing repairs

2.2.3 **Option C3: An absence of any planned maintenance (DO NOTHING)**

Budget

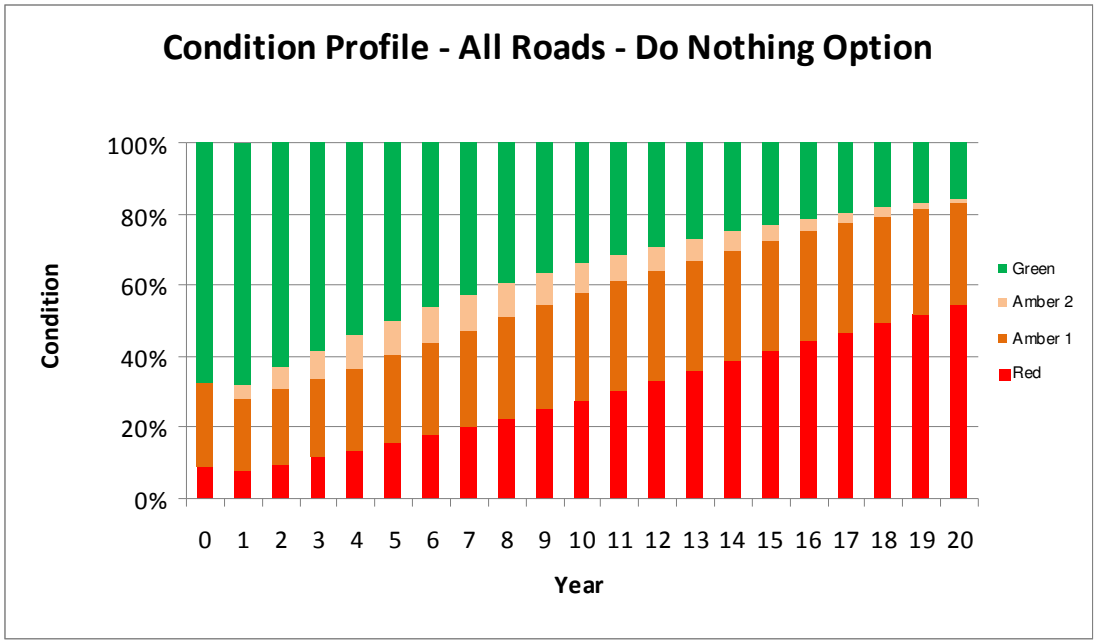
The do nothing option means carrying out reactive and cyclic maintenance only with no planned renewals:

HAMP Cost Category	**Expenditure (£000's)** (2011/12 actual)	**%**
Routine - Reactive Repairs (emergency)	£870k	21%
Routine - Reactive Repairs (non-emergency) - Patching	£2,730k	65%
Routine Cyclic Maintenance	£397k	9%
Planned Maintenance - Preventative	£0k	0%
Planned Maintenance - Corrective	£0k	0%
Inspections and survey (not covered under staff costs)	£43k	1%
TOTAL	£4,040k	
Loss (3rd Party Claims associated with (c/ways)	£190k	4%
TOTAL (including claims costs)	**£4,230k**	

Comments

The planned maintenance budget is added to the normal reactive maintenance budget to account for the extra patching and repair works due to the lack of planned maintenance.

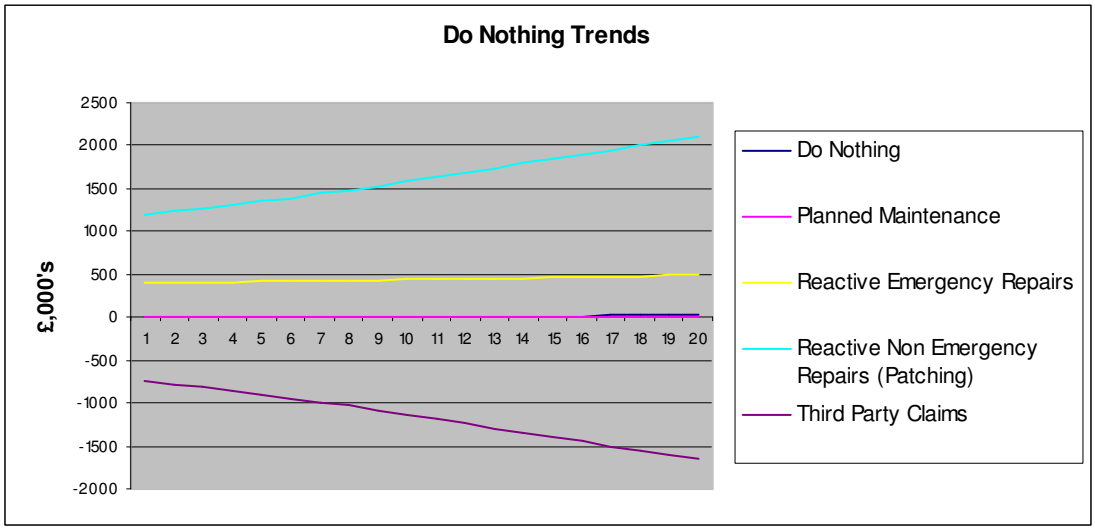
Predicted Condition



The do nothing graph above illustrates that the condition of the carriageway will decline rapidly over the next 20 years.

Predicted Impacts

Reactive Maintenance



The do nothing option shows trends of rising routine emergency, non emergency repairs and third party claims. It is predicted that non emergency repairs will increase by almost 75% and emergency repairs by 25%.

3rd Party Claims

It is predicted that claims liability will rise by 120%.

Customer Satisfaction

With the condition of the carriageway worsening and the number of reactive repairs increasing it is envisaged that customer satisfaction will decrease.

Future Costs

Based on budget estimates remaining the same the cost over 20 years will be identical to option C2 i.e. £44m (£2.2m per year) transferred to reactive maintenance. This will inevitably result in a worsening carriageway condition as highlighted.

Option Summary

The do nothing option of a continuance of current funding levels is predicted to result in:

a. ↗ annual budget growing over time to accommodate increasing reactive repairs
b. ↘ reduction (deterioration) of measured condition
c. ↗ increasing quantities of minor defects (pot holes and the like)
d. ↗ potential for increase in 3rd party claims
e. ↘ likelihood of decreased customer satisfaction as a result of increasing repairs

2.2.4 **Option C4: A continuance of current condition levels (STEADY STATE)**

Budget

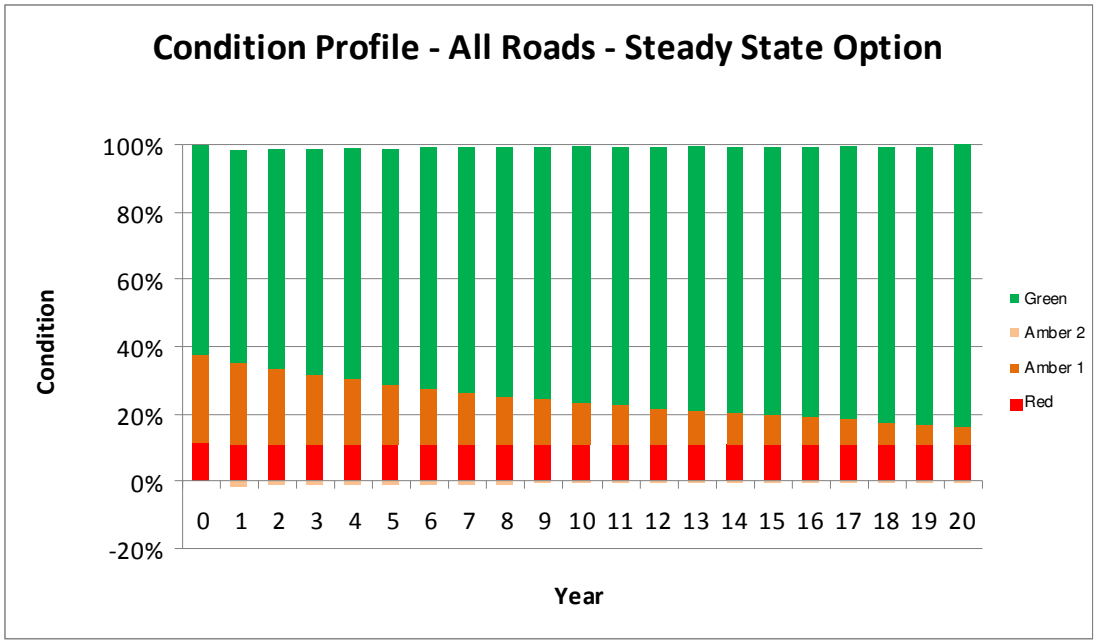
The steady state option means carrying out enough planned maintenance to maintain the current carriageway condition levels:

HAMP Cost Category	**Expenditure (£000's)** (2011/12 actual)	**%**
Routine - Reactive Repairs (emergency)	£400k	4%
Routine - Reactive Repairs (non-emergency) - Patching	£1,230k	13%
Routine Cyclic Maintenance	£397k	4%
Planned Maintenance - Preventative	£3,500k	36%
Planned Maintenance - Corrective	£4,000k	40%
Inspections and survey (not covered under staff costs)	£43k	1%
TOTAL	£9,570k	
Loss (3rd Party Claims associated with (c/ways)	£190k	2%
TOTAL (including claims costs)	**£9,760k**	

Comments

A planned maintenance budget of at least £7,500k is required in addition to the normal reactive maintenance budget to maintain the current condition of the carriageway.

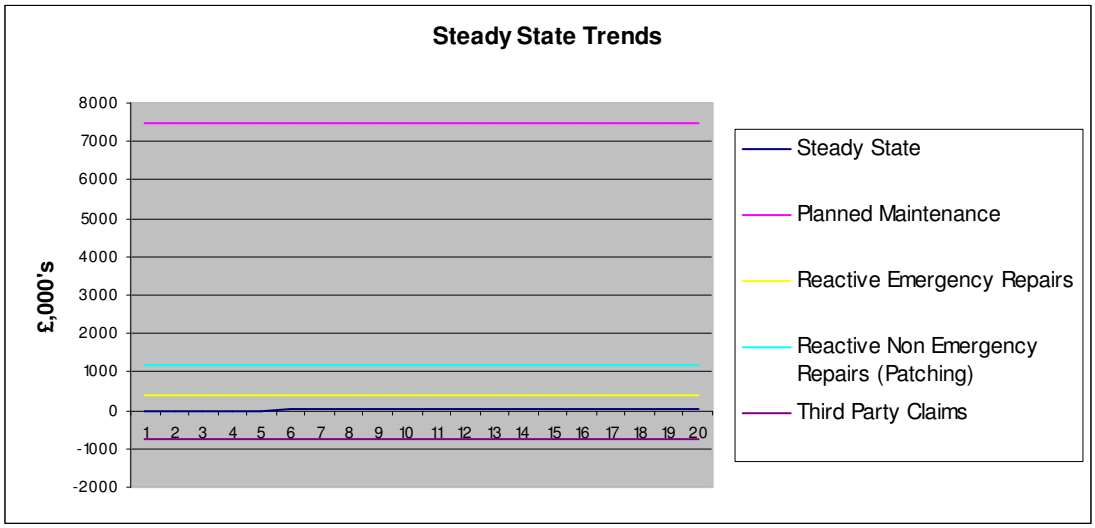
Predicted Condition



The steady state graph above illustrates that the red condition, (where planned maintenance is required), of the carriageway remain constant over the next 20 years. This uses estimated values for the condition of unclassified roads as survey results are not currently available.

Predicted Impacts

Reactive Maintenance



The steady State option shows trends of routine emergency, non emergency repairs and third party claims ramaining the same

3rd Party Claims

It is predicted that claims liability will remain at current levels.

Customer Satisfaction

It is predicted that customer satisfaction levels will remain similar to current levels.

Future Costs

The total cost for this steady state option requires additional funding of £110m over and above the baseline budget.

Option Summary

The baseline option of a continuance of current funding levels is predicted to result in:

a. → annual reactive budget remaining at current levels
b. → measured condition to remain at current levels
c. → minor defects (pot holes and the like) to remain at current levels
d. → 3rd party claims to remain at current levels
e. → likelihood of customer satisfaction remaining at current levels

2. Footways

3.1 Status Report

The Asset

The council's footways assets are made up of:

Hierarchy	Bituminous	PCC Slabs	Stone	Concrete	Blocks
Total	2625k sqm	740k sqm	37ksqm	185k sqm	111k sqm

Over the last 5 years the footway asset has grown by (2.1%).

The full footway inventory is not held at present and the above figures are calculated from carriageway lengths and default widths. A full footway network survey is planned to take place over the next two years that will provide more accurate areas and conditions.

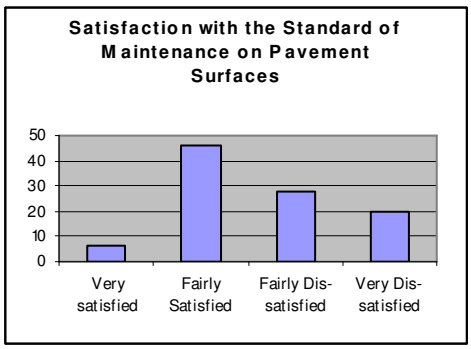
Works are prioritised on the basis of location, footfall, complaints, repair numbers and concerns raised by inspectors following inspection.

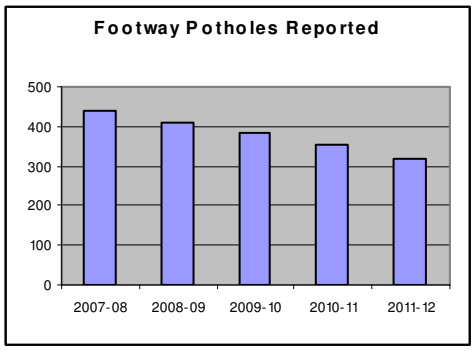
Current Value

In August 2012 the value of the footway asset, gross replacement cost (GRC) was £175m and the depreciated replacement cost (DRC) was £118.6m. An annualised depreciation (AD) of £6.1m was calculated. AD is the average amount by which the asset will depreciate in one year if there is no investment in renewal of the asset.

Customer Satisfaction

In the most recent public survey in 2011 52% of respondents were satisfied with the standard of maintenance on pavement surfaces.





The number of footway pothole service requests has decreased steadily for the last five years and by 28% in total from 2007 to 2012.

Caerphilly County Borough Council
Highways Asset Management Plan
Annual Status and Options Report

Measured Condition

The condition of the footways is currently being measured via a visual inspection regime. This inspection will be repeated annually. Footway condition is measured in 4 categories as shown below.

1. Green – As New
2. Green – Aesthetically Impaired
3. Amber – Minor Deterioration
4. Red – Major Deterioration

Level 2 condition footways are functionally safe but their appearance is "impaired" e.g. the appearance of these footways is spoiled by a reinstatement of utility works. The results provide an indication of the condition of the footway. The results from the initial 5% sample survey of footways are shown below.

Footway Condition Results 2010-11 (based on 5% sample inspection)		
Condition		%
4	Major Deterioration	0.1
3	Minor Deterioration	1.8
2	Aesthetically Impaired	55.5
1	As New	42.6

Comment

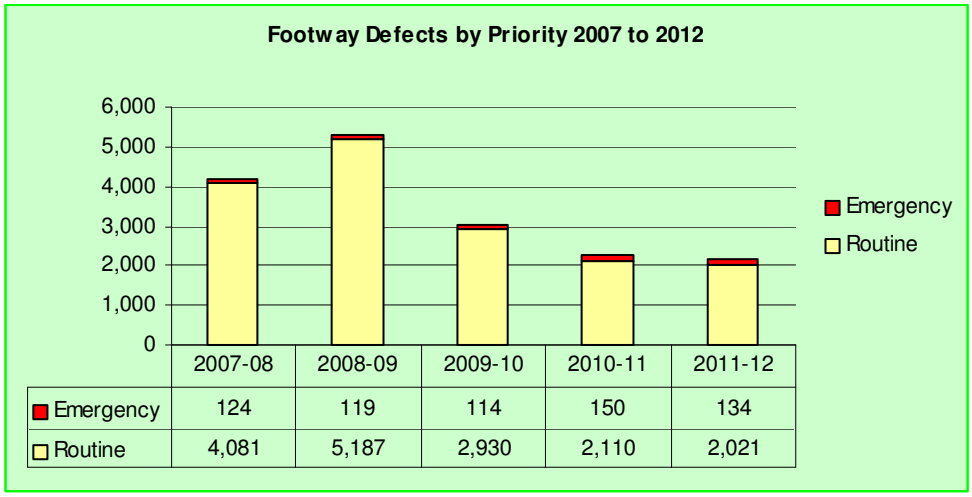
Although the above figures do not show a large amount of footways in need of urgent attention, it is based on a very small sample and may not be indicative of the network as a whole.

The Authorities current target is to resurface 3% of the footway asset per year that means all footways should receive treatment once every 33 years.

Reactive Repair

Basic safety is delivered via a regime of inspection, identification and classification of defects and repair of defects such as pot holes. The following statistics illustrate performance in meeting our standards for reactive repair as detailed in Caerphilly's Safety defect rating system Issue 3 April 2003. Emergency repairs have 2 hours and 24 hours repair deadlines all other routine repairs set at 28 days.

Indicator	Result 2011-12	Comments
Locally defined target time to make safe a dangerous / hazardous incident	2 hrs	Set out in a Policy document and section 58 defence
Number of category one defects identified / reported during year	134	
Number of category one defects identified / reported during previous year	150	
Number of incidents of damage to footways requiring making safe - not full repair (defined as dangerous / hazardous)	150	APSE PI figures for number of emergency service requests
Number of incidents above made safe within target time (from the time that the Authority first became aware of the damage).	148	Response to emergencies both within and outside normal working hours above target of 95%
Number of incidents above made safe within 24 hours (from the time that the Authority first became aware of the damage).	148	



	2007-08	2008-09	2009-10	2010-11	2011-12
Emergency	124	119	114	150	134
Routine	4,081	5,187	2,930	2,110	2,021

The number of emergency defects issued has decreased over the last year and the number of routine defects repairs has halved in the last five years.

Investment in Footways

Historical investment in footways has been as shown below

Year	Routine Reactive (£,000)	Planned (£,000)	Total (£,000)
2007-08	292	410	702
2008-09	339	244	583
2009-10	192	260	452
2010-11	331	705	1,036
2011-12	346	442#	788

In addition to this amount there was also an extra allocation of £500,000 from reserves
NOTE: All extra allocations are awarded on a year by year basis, are not guaranteed and cannot therefore be considered as regular year on year budgets

There have been considerable pressures on the highway budget following severe winters and monies have been allocated to highways repairs and surfacing as the priority.

During 2011-12 the investment in the footway asset was as follows:

Planned Maintenance - preventative	£188k	9%
Planned Maintenance - Corrective	£804k	40%
Routine - Reactive Repairs (emergency)	£140k	7%
Routine - Reactive Repairs (non-emergency)	£308k	16%
Loss#	£560k	28%

Planned maintenance expenditure represents the monies spent on renewals of the asset, as opposed to small scale repairs. In 2011-2012 a total of £992,000 was invested in planned maintenance/renewal of the footway asset, this is only 16% of the estimated annual depreciation of £6,100,000.

Investment in footway in the current year (2012-13) is budgeted to be £1,468,000.

Output

The outputs that the budget was able to achieve in 2011-12 are shown below

Category		Output
Planned Maintenance - preventative	£188k	– 39,700 sqm of slurry sealing (£188k)
Planned Maintenance - Corrective	£804k	– 19,200 sqm of structural reconstruction (£804k)
Routine - Reactive Repairs (emergency)	£140k	– 134 no. cat 1 defect repairs and other emergency call outs
Routine - Reactive Repairs (non-emergency)	£308k	– 3,600 sqm of reactive repairs
Insurance Claims	£560k#	– 48 no 3rd party claims associated with footways

*Figures above are works costs and do not include an allowance for overheads

The insurance claim figure is a provision made to contribute towards claims and is not reflective of what is actually currently paid as settlements.

Footway Status Summary

Footways Status at November 2012
– ↘ annual budget decreasing over time – ↘ reduction (deterioration) of measured condition – ↗ increasing quantities of minor defects (pot holes and the like) – ↗ increase in 3rd party claims – ↘ decreasing customer satisfaction as a result of increasing reactive repairs

3.2 Footways Options

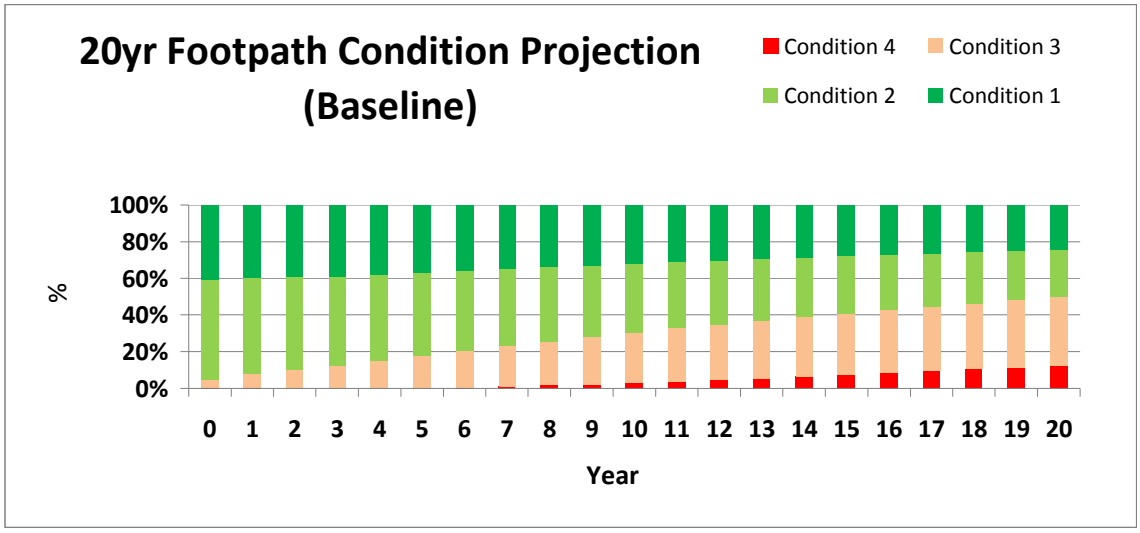
3.2.1 F1: Option 1 A continuance of current highway maintenance budget levels (BASELINE)

Budgets

The baseline option comprises a continuance of current highway maintenance funding levels as shown below:

HAMP Cost Category	Anticipated Budget (£000's)	Comments
Routine - Reactive Repairs (emergency)	£140k	
Routine - Reactive Repairs (non-emergency), - Patching and Paving *	£308k	
Planned Maintenance - Preventative	£250k	
Planned Maintenance - Corrective	£318k	
TOTAL	**£1,016k**	
Loss (3rd Party Claims associated with (footways)#	£560k	
TOTAL (including claims costs)	**£1,576k**	

Predicted Condition



The graph above shows that by continuing with the current budget levels the amount of footways at a red level will increase to about 13% in year 20 and amber footways will increase to about 37%.

Impacts

Reactive Maintenance

It is predicted that with the condition of footways worsening then the level of reactive maintenance will increase

3rd Party Claims

It is predicted that with the condition of footways worsening then the level of insurance claims will increase

Future Costs

Based on current budget indications the estimated cost will be £11m over 20 years. This is based on an annual budget of £0.56m per year. This is significantly below the annualised depreciation of £6.1m and is not inflation linked.

Summary

The option of a continuance of current budget levels is predicted to result in:

- ↘ deterioration of measured condition
- ↗ increase in quantities of minor defects
- ↗ predicted increase in 3rd party claims
- ↘ decreased customer satisfaction

Total cost (over 20 years) estimated at **£11m**

3.2.2 F2: Option 2 A continuance of current budget levels including additional funding (BASELINE PLUS)

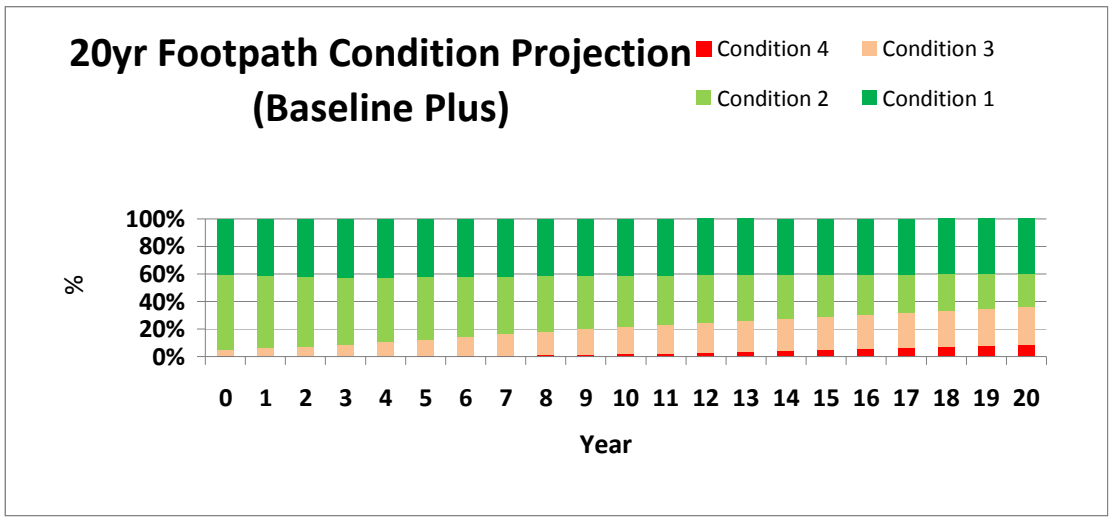
Budgets

The baseline plus option comprises a continuance of current funding levels as shown below:

HAMP Cost Category	Anticipated Budget (£000's)	Comments
Routine - Reactive Repairs (emergency)	£140k	
Routine - Reactive Repairs (non-emergency), - Patching and Paving *	£308k	
Planned Maintenance - Preventative	£250k	
Planned Maintenance - Corrective	£1218k	This includes £900k LGBI for year 1 and £600k for years 2 and 3. This decreases to £318k from year 4
TOTAL	**£1,916k**	
Loss (3rd Party Claims provision associated with (footways)#	£560k	
TOTAL (including provision for claims costs)	**£2,476k**	

Predicted Condition

The graph above shows that by continuing with the current budget levels including additional funding the amount of footways at a red level will increase to about 8% in year 20 and amber footways will increase to about 28%.



Impacts

Reactive Maintenance

It is predicted that with the condition of footways worsening then the level of reactive maintenance will increase

3rd Party Claims

It is predicted that with the condition of footways worsening then the level of insurance claims will increase

Future Costs

Based on current budget indications the estimated cost will be £34m over 20 years. This is based on an annual budget of £1.4m for years 1 to 3 and £0.5m for year 4 on. This is significantly below the annualised depreciation of £6.1m and is not inflation linked.

Summary

The option of a continuance of current budget levels is predicted to result in:

- ↘ deterioration of measured condition
- ↗ increase in quantities of minor defects
- ↗ predicted increase in 3rd party claims
- ↘ decreased customer satisfaction

Total cost (over 20 years) estimated at **£34m**

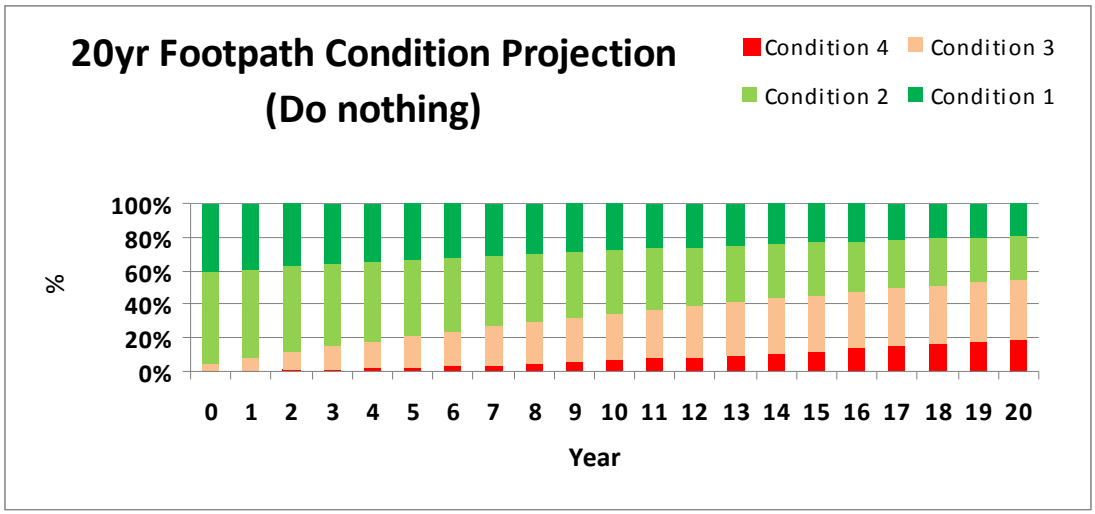
3.2.3 F3: Option 3 An absence of any planned maintenance (DO NOTHING)

Budgets

The do nothing option comprises a continuance of current funding levels as shown below:

HAMP Cost Category	Anticipated Budget (£000's)	Comments
Routine - Reactive Repairs (emergency)	£390k	
Routine - Reactive Repairs (non-emergency), - Patching and Paving *	£626k	
Planned Maintenance - Preventative	£0k	
Planned Maintenance - Corrective	£0k	
TOTAL	**£1,016k**	
Loss (3rd Party Claims associated with (footways)#	£560k	
TOTAL (including claims costs)	**£1,576k**	

Predicted Condition



The graph above shows that by not carrying out any planned maintenance of footways the amount at a red level will increase to about 19% in year 20 and amber footways will increase to about 36%.

Impacts

Reactive Maintenance

It is predicted that with the condition of footways worsening then the level of reactive maintenance will increase.

3rd Party Claims

It is predicted that with the condition of footways worsening then the level of insurance claims will increase.

Future Costs

Based on budget estimates remaining the same the cost over 20 years will be £32m (£1.6m per year) transferred to reactive maintenance. This will inevitably result in a worsening carriageway condition as highlighted.

Summary

The option of a continuance of current budget levels is predicted to result in:

- ↘ deterioration of measured condition
- ↗ increase in quantities of minor defects
- ↗ predicted increase in 3rd party claims
- ↘ decreased customer satisfaction

Total cost (over 20 years) estimated at **£32m**

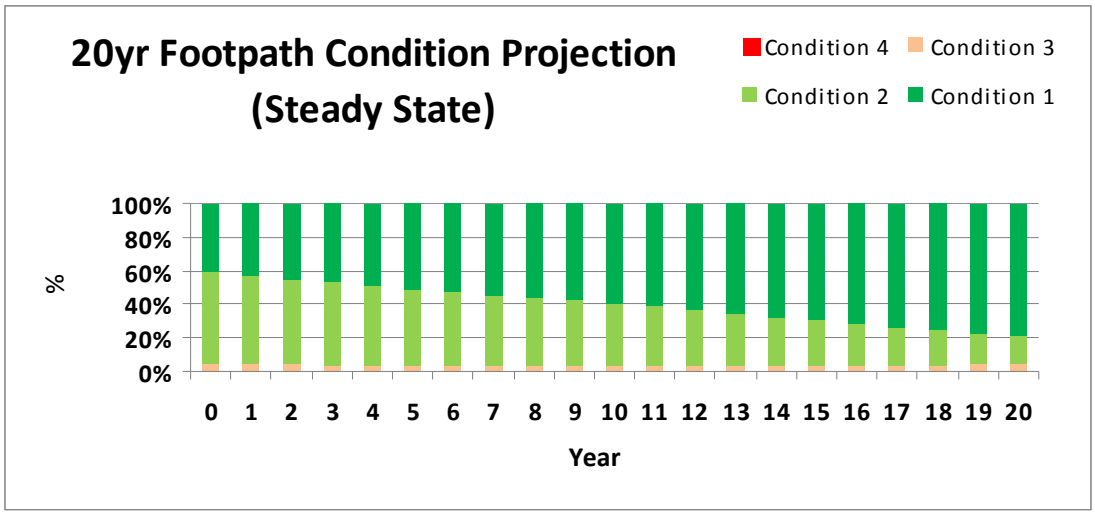
3.2.4 F4: Option 4 A continuance of current condition levels (STEADY STATE)

Budgets

The steady state option comprises a continuance of current funding levels as shown below:

HAMP Cost Category	Anticipated Budget (£000's)	Comments
Routine - Reactive Repairs (emergency)	£140k	
Routine - Reactive Repairs (non-emergency), - Patching and Paving *	£308k	
Planned Maintenance - Preventative	£200k	
Planned Maintenance - Corrective	£3,000k	
TOTAL	**£1,916k**	
Loss (3rd Party Claims associated with (footways)#	£560k	
TOTAL (including claims costs)	**£2,476k**	

Predicted Condition



The graph above shows that by investing £3.2m per annum there will be no footways at a red level, also the percentage of footways at a green, (category 1), level will increase.

Impacts

Reactive Maintenance

It is predicted that with the condition of footways at category 1 increasing the level of reactive maintenance will decrease

3rd Party Claims

It is predicted that with the overall condition of footways improving the level of insurance claims will decrease.

Future Costs

The total cost for this steady state option requires additional funding of £53m over and above the baseline budget of £11m over the 20 year period.

Summary

The option of a continuance of current condition levels is predicted to result in:

- → measured condition to remain constant
- ↘ decrease in quantities of minor defects
- → 3rd party claims to remain similar
- ↗ increased customer satisfaction

Total cost (over 20 years) estimated at **£64m**

4. Street Lighting

4.1 Status Report

The Asset

The council's street lighting assets are made up of:

Column Material/Hardware Type	Age in years	Number by Height					Totals
		5m	6m	8m	10m	12m	
Galvanised Steel	0-20	1,177	10,053	4,932	3,625	424	20,211
	21-30	12	4	16	17	1	50
	31-40	7	12	55	8	0	82
	over 40	280	716	327	186	24	1,533
	Total	1,476	10,785	5,330	3,836	449	21,876
Aluminium	0-20	12	263	55	96	0	426
	21-30	0	0	0	0	0	0
	31-40	0	0	0	0	0	0
	over 40	37	0	0	0	0	37
	Total	49	263	55	96	0	463
Wood	0-20			165			165
	21-30			1			1
	31-40			0			0
	over 40			4,198			4,198
	Total	0	0	4,364	0	0	4,364
All Columns	**Total**	**1,525**	**11,048**	**9,749**	**3,932**	**449**	**26,703**
Wall Brackets	0-20						19
	21-30						0
	31-40						0
	over 40						2
	Total						21
Feeder Pillars	0-20						500
	21-30						0
	31-40						0
	over 40						0
	Total						500
Other Structural	**Total**						**521**

Column Material Inventory

Column material	Number of columns
Mild steel – EPC & HDG	21876
Aluminium	463
Wood	4364

All Columns	**26703**

Lighting Lamp and Control Inventory

Lamp type	Lamp wattage	Number of lamps	
SOX Includes LPS, SOX+, SOXPLUS etc	35	36	12
	55	3125	2713
	90	1001	897
	135	1303	1195
	180	60	15
SON SON plug in lamps. Includes HPS and all high pressure sodium derivatives	50	269	359
	70	11475	10528+727=11255
	100	1075	1313
	150	6064	5617
	250	1924	1942
	400	3	3
	600	-	
	1000	-	
MBF	50	-	
	80	-	
	125	-	
	250	77	
	400	-	
Metal Halide	400	-	
CDM/T Includes CDM/TT etc.	35	25	3
	45		494
	60		232
	70	16	95
	90		205
	140		202
	150	9	141
	250	99	54
MCF	85	-	
	125	-	
	other	-	
PL-T	other	-	
LED	Various	-	323
Other lamp types not listed above	Various		33

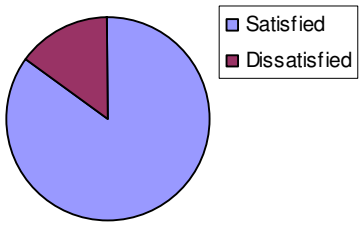
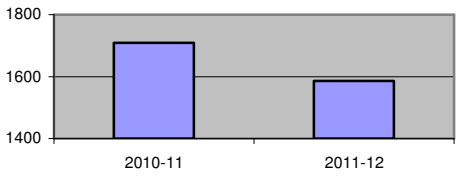
Control	Number of lamps
Photo cell – all night	22264
Photo cell – part night	4972
Dimmed equipment	-

Caerphilly County Borough Council
Highways Asset Management Plan
Annual Status and Options Report

Current Value

In July 2012 the value of the street lighting asset, gross replacement cost (GRC) was **£27.94m** and depreciated replacement cost (DRC) was **£16.76m.** An annualised depreciation (AD) of **£0.83m** was calculated. AD is the average amount by which the asset will depreciate in one year if there is no investment in renewal of the asset.

Customer Satisfaction

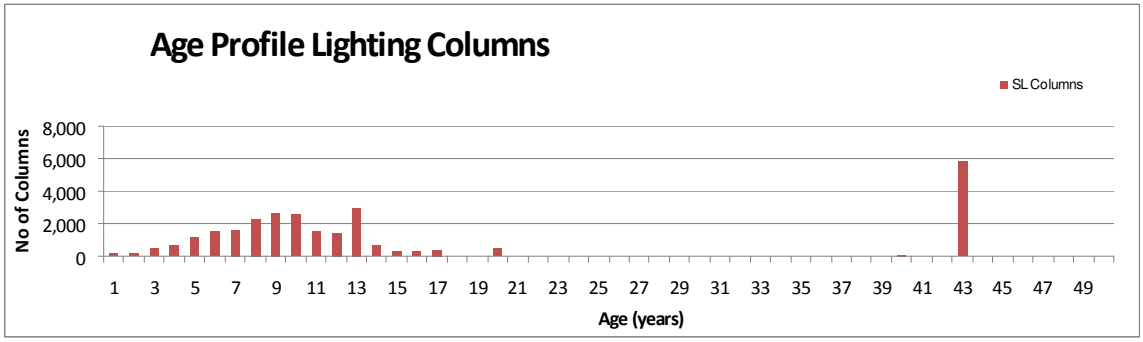
<table>
<tr>
<td>In the most recent household survey carried out in 2011 85% of respondents were satisfied with the Street Lighting service.</td>
<td> 
</td>
</tr>
<tr>
<td> 
</td>
<td>The number of calls from the public relating to lighting faults has decreased from 1,709 in 2010-11 to 1,586 in 2011-12, a decrease of 7%.</td>
</tr>
</table>

Condition

Age Profile

The condition of lighting assets is normally judged on the age of the asset and whether it has exceeded its design life. The current age profile of the street lighting assets shows that 5,867 No. are currently beyond their expected service life of 30 years.

- **5,785 Lamp Columns are more than 40 years old.**
- **82 Lamp columns are between 30 and 40 years old.**



Comment

- The condition of the lighting stock is deteriorating over time but the majority of columns are still within their expected service life.
- There is a current minor street lighting column replacement programme. Columns are structurally assessed after 12 years and at appropriate intervals thereafter depending on condition
- The current budget of £50,000 funds about 25 column replacements per annum. Excluding Wooden Columns there are approximately 1,600 columns outside their expected service life. At the current rates it will take over 30 years to replace these columns by which time all other columns will be beyond their expected service life.
- The Authorities current targets are:

1.1 To replace all aging and dangerous columns with steel or aluminium columns.

1.2 Present resources allow for 25 number of aged lighting columns to be replaced per annum, should the present level of funding remain the backlog of aged columns will be significantly extended beyond reasonable performance.

1.3 To underground where practicable all two wire overhead supplies.

1.4 To replace the existing problematic and aging cable network with a fully ducted underground system.

1.5 Street lighting columns are to be managed appropriately if they exceed their design life.

1.6 All low pressure sodium (SOX) and high pressure sodium (SON) are to be replaced with energy efficient white light sources. This replacement programme will reduce lighting pollution, increase colour rendition, improve the quality of CCTV footage and create a public perception of after dark safety. These measures will also assist the Authority in meeting its 45% reduction in Carbon emissions.

1.7 To extend the Central Management System to all units.

1.8 Replace illuminated bollards with non-energy consuming variants.

1.9 Replace all illuminated traffic sign lights with energy efficient LED units or utilise appropriate reflective unlit signs should legislation allow.

Reactive Repair

Basic safety is delivered via a regime of visual inspection and electrical and structural testing. The following statistics illustrate performance in meeting our standards for reactive repair and testing as defined by our maintenance agreement, electrical wiring regulations and the recommendations of the Institute of Lighting Professionals.

Performance Results

Indicator	2010-11 Results	2011-12 Result	Comments
Percentage of street lamp failures / lights not working as planned	**1.02%**	**0.98%**	
Average time (in days) for authority to repair / replace street lamps not working as planned from report (excluding electricity supplier fault)	3.91 calendar days	4.5 calendar days	These faults are reported by the public via the Contact Centre. The contractors target repair time is 4 working days.
Average time (in days) between inspections of street lamps	**30 days**	**30 days**	
Percentage of above street lamps not working as planned (SLNWP) restored to working condition within 7 days	**92.0%**	**94.13%**	The target time for these works is seven days. These are faults identified by the contractors during night inspections.
Number of lamps (excluding illuminated signs) where electrical testing was undertaken in last six years	**31,644**	**36,611**	No tests are required for the first 6 years after installation. This figure represents 100% of the asset requiring testing.
Number of columns where structural inspection was undertaken in last six years	**0**	**1,315**	No tests are required for the first 12 years after installation. This figure represents 100% of the asset requiring testing.

Comment

There has been a reduction in street lamp failures but an increase in time to repair. This discrepancy resulted from the change over of contract and the inspection regime. Under the new contract there was an initial increase in inspections that instigated a large number of repairs at the same time. There is currently no major maintenance backlog in street lighting repairs.

Comparison with other authorities (Data from APSE PI returns – Whole Service Report)

		Number in service	Highest in service	Average for service	Lowest in Service	Authority score	Standing in service
PI 02	Percentage of street lamps not working as planned	36	1.22%	0.72%	0.32%	1.02%	29
PI 03	Percentage of lamps restored to working condition within 7 days	43	99.61%	91.06%	68.91%	92.00%	27
PI 18b	Average annual electricity consumption per street light (kWh)	45	565.60	412.27	285.01	500.19	40
PI 04	Average time to repair lamps (authority only)	42	5.65	3.15	1.01	3.91	30
PI 6a	Energy cost per street lamp and illuminated sign	49	£48	£33	£22	£38	35

Investment in Lighting

Historical investment in lighting has been as shown below

	2007-2008	**2008-09**	**2009-10**	**2010-11**	**2011-12**
Capital	£100,000	£0	£0	£0	£0
Revenue	£1,654,000	£1,655,000	£1,670,000	£1,500,000	£800,000
Energy	£900,000	£1,300,000	£1,300,000	£1,200,000	£1,400,000

Comment

- As can be seen from above the energy costs are taking a much larger proportion of the lighting budget than five years ago. This has a great effect on the amount of scheduled replacement and other planned work that can be programmed.
- It is anticipated that future budget levels will remain at or around current levels

Output

The outputs that the budget was able to achieve in 2011-12 are shown below:

Category	Cost (£s)	Output
Routine (Day to Day) Maintenance	233,865	Including: 3,654 No. lamp replacements following failure.
Routine Maintenance (non-safety related)	572,690	Including: 154 No. lamp column replacements 501 No. lantern replacements
Inspections & Survey	10,848	Monthly Night Inspections 1,315 No. Structural tests
Operating Costs	1,283,076	Energy

*NB figures above are works costs only and do not include an allowance for staff costs / overheads etc.

Street Lighting Status Summary at Oct 2012

- ↘ annual budget decreasing in real terms over time
- ↗ Energy Cost has seen a huge rise in last few years
- ↘ reduction (deterioration) of measured condition (age profile)

4.2 Street Lighting Options:

SL 1	Baseline Budget Option for Column Renewals (continuance of current funding)
SL 2	Steady State Option for Column Renewals (continuance of current condition)

SL 1 Baseline Budget

The baseline option comprises a continuance of current funding levels (for planned maintenance) as summarised in the table below:

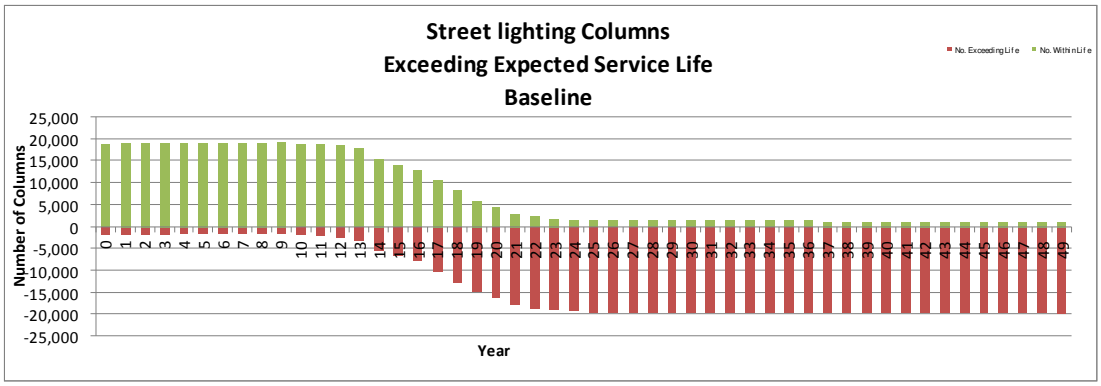
HAMP Cost Category	**Expenditure (£000's)***	**% Spend**
Routine - Reactive Repairs (emergency)	10	
Routine - Reactive Repairs (non-emergency)	490	24%
Routine Cyclic Maintenance	25	1%
Planned Maintenance – Preventative	50	2%
Inspections and Survey	5	
Operating Costs (Energy)	1450	67%
Improvements (Innovation Tech)	120	6%
TOTAL	2,150	

* NB the table above also include costs for operating and maintaining illuminated street furniture undertaken in conjunction with the street lighting service

NB By far the greatest area of expenditure in the street lighting service involves Energy Costs, which have increased by more than 20% per annum (on average) since 2004. Efforts to mitigate this cost are a significant driver.

Measured/Predicted Condition

Refer to graph below:



A continuation of the current funding levels results in a significant decline in the condition of the asset. The number of lighting columns exceeding their expected service life increases significantly with time. The associated testing and maintenance costs would also increase significantly.

It is predicted that the continuance of this level of funding for planned maintenance (column renewal) will lead to a higher proportion of street lighting columns exceeding their Expected Service Life (ESL), resulting ultimately in an increasing risk of unexpected failure.

SL 2 Steady State Option

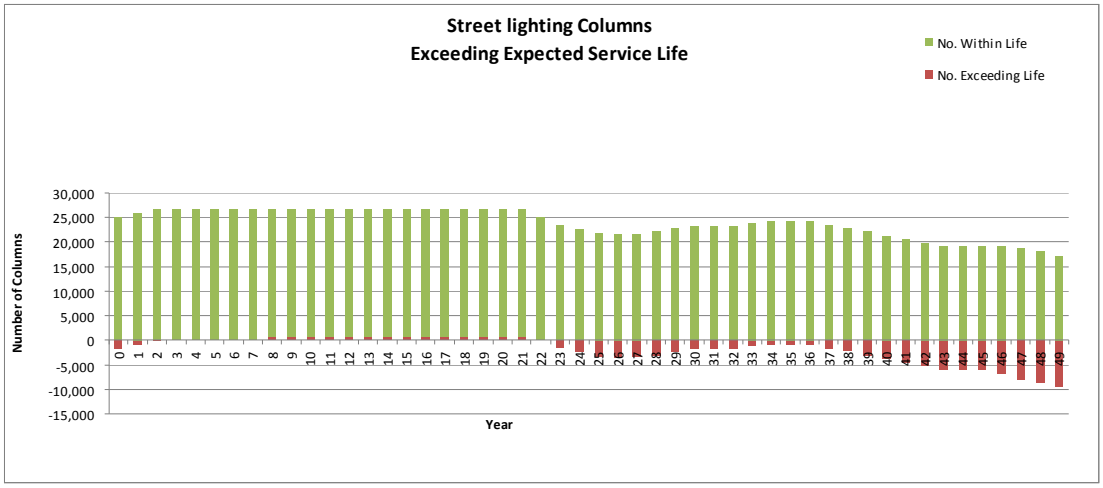
The steady state option comprises an increase of current funding levels (for planned maintenance) as summarised in the table below:

HAMP Cost Category	Expenditure (£000's)*	% Spend
Routine - Reactive Repairs (emergency)	10	1%
Routine - Reactive Repairs (non-emergency)	490	16%
Routine Cyclic Maintenance	25	1%
Planned Maintenance – Preventative	900	29%
Inspections and Survey	5	1%
Operating Costs (Energy)	1450	48%
Improvements (Innovation Tech)	120	4%
TOTAL	3,000	

* NB the table above also include costs for operating and maintaining illuminated street furniture undertaken in conjunction with the street lighting service

Measured/Predicted Condition

Refer to graph below:



Investing £900,000 per year will keep the asset at a somewhat steady state. The asset will improve over the next 20 years and will then decline and recover over the next 10 years to roughly the same state as at present. This is due to the fact that the majority of columns have been replaced in the last ten years and will all reach the end of their life in 20 to 30 years time.

Maintenance/Cost Impacts

There has been considerable investment in Caerphilly Street lighting stock since 1996 resulting in the removal of all concrete columns, the upgrading of luminaires and light sources, and the stock is now in generally good condition.

The Authority has also secured Salix funding to assist in the provision of further energy saving equipment. At this moment investigations are ongoing into LED and a central management system.

In turn this management system will allow the asset to be managed in different ways assisting in altering its carbon footprint and introducing innovative options of altering lighting levels locally and strategically at a time when future energy costs are likely to rise.

Predicted Future Costs

The biggest factor influencing future street lighting costs involves the price of energy. Over the last decade the cost of energy has increased significantly, with increases in excess of 20% per annum experienced since 2004. If this trend was to continue (with no reduction in street lighting energy demand) then this could add substantial costs to the street lighting service budget over the next 20 years,

The scale of future price increases is unknown. It is probable that energy will become more expensive due to growing competition for resources and increased generation costs. It is therefore prudent to explore options for reducing street lighting energy usage while still maintaining an acceptable level of service for the residents and travelling public.

Summary

The baseline option of a continuance of current funding levels is predicted to result in:

- → the number/proportion of street lighting columns exceeding their Expected Service Life (ESL) to remain at about current levels for the next ten years and to then increase rapidly
- → the level of reactive maintenance to remain at about current levels
- ↗↗↗ energy costs to increase significantly in the future,
- ↗↗ a substantial increase in budget will be required to operate and maintain the asset

5. Drainage

5.1 Status Report

The asset

The Authority currently has responsibility for a variety of distinct drainage elements.

These can be broken down into two elements

1.The Highway Drainage network

The highway surface is drained mainly by highway gullies with connecting underground pipework. In large elements of the highway network these drains run directly into the combined sewer network.

The highway drainage has historically not been well documented but it is recognised that it should be plotted in order to manage it most effectively.
Currently the surface discharge points, road gullies, are being plotted by Exactrac and GPS. From this it is intended to predict the extent of the piped network and where necessary undertake underground survey to confirm drainage alignment.
In recent years increasing lengths of kerb drainage have been constructed whose position is immediately obvious.

More recently new and adopted drainage is recorded on electronic GIS themes in order to begin to establish an asset inventory.

Currently there is an ongoing review in relation to the Authority's approach to recording drainage assets that is taking into consideration aspects of the Flood Management Act

2.The Land Drainage network

The highway operations group manages the council's land drainage apparatus and its maintenance issues. Part of the Flood management Act also requires the group to police land drainage around the Borough. The Authority has approximately 1,300 land drainage culverts some of which pass under the highway. 221 of these culvert inlets are considered as severe weather culverts and managed more proactively in advance of and during severe weather.

Those culverts greater than 900 diameter are within the Structures section of the HAMP Annual Status and Options Report.

Current Value

Asset	Estimated Number	Estimated Total (£,000)
Culverts	1,300 no	130,000
Gullies	32,000 no	10,000
Highway drainage	500km	35,000
Total	**Total**	**175,000**

Caerphilly County Borough Council
Highways Asset Management Plan
Annual Status and Options Report

Measured Condition

The condition of the asset is currently unknown.

Reactive Repair

Repairs are undertaken where the threat of flooding has been identified.

Investment

	2007-2008	2008-09	2009-10	2010-11	2011-12
Revenue	£1,002,000	£1,040,000	£1,094,000	£1,298,000	£1,125,000

Output

Category		Output
Planned Maintenance - Corrective	£643k	– Replacing culvert lengths (381k) – Replacing highway drainage (262k)
Routine Cyclic Maintenance	£378k	– 32,000 gullies cleansed bi-annually
Routine - Reactive Repairs (emergency)	£251k	– Severe weather culvert inspections and cleansing
Routine - Reactive Repairs (non-emergency)	£26k	– CCTV surveys and minor non-urgent culvert works

Conclusion

The drainage asset appears historically to have been little considered with some of the elements we have inherited having been constructed at the turn of the 19th & 20th centuries.
The problems from flooding are recognised, as is the need to locate and plot the entire drainage asset. The Authority is proactive in identifying areas that need improvement.
Some of these identified areas have been outside of the Authority's responsibility and land holding but drainage grant monies have allowed schemes to be taken forward and for the Authority to assume responsibility for them

6. Structures

6.1 Status Report

The Asset

The council's structures assets are made up of:

Highway Structures Inventory by Road Hierarchy						
Structure Type	**Total No.**	**No. Structures located on:**			**No. of listed structures (all Routes)**	**No. of structures classed as Confined Spaces**
		A Roads	**B Roads**	**C Roads U Roads**		
Bridge: Span > 3m	141	45	17	69	14	10
Bridge / Culvert: Span < 3m	174	52	7	100	0	137
Subways	12	4	1	7	0	0
Footbridges	86	15	1	6	0	0
Retaining Walls						
Asset growth	Over the last 5 years the number of bridge structures has grown by 9 no bridges **(2.0%)**					

Inventory

Please note the total number includes the bridges that do not fall under the category A,B,C or U roads, i.e. cycleway/rights of way footbridges that are not associated with the road network. There is 95% confidence in the data held.

The topography of the county borough and type of construction of the villages and towns results in there being thousands of retaining walls associated with the highway network, both above and below the road. The database lists all walls that have a record or has had some investigation, i.e. it is a reactive database only so cannot be relied upon at present to quantify the entire asset. Retaining Wall data is to be subject to a data management plan.

Current Value

In June 2012 the value of the structures asset was estimated as, gross replacement cost (GRC) **£391 m**, depreciated replacement cost (DRC) and annualised depreciation (AD) will be calculated from the cost projection spreadsheet which is currently in development by CSS Wales in conjunction with SCOTS in Scotland.

Caerphilly County Borough Council
Highways Asset Management Plan
Annual Status and Options Report

Measured Condition

Bridge Condition Indices (BCI) are a method used for monitoring and recording the condition of all elements of a structure. Each element is graded for the severity and extent of any defects. The importance of that element is also rated. The computation of the inspection results produces a condition index for each structure and summates these indexes into a bridge stock Index. These figures can be reviewed year on year to monitor the overall condition of the asset and prioritise work on critical structures.

Caerphilly County Borough Council have introduced BCI inspections for bridges from 2011/12 to feed into the HAMP process. Data has been received from 2012/13 inspections in August 2012 and work is in progress to set up the reporting procedures to obtain overall condition scores, which will feed into the HAMP process. These will be available from 2013/14.

Consideration needs to be given towards BCI inspections for culverts to determine usefulness with regards to the overall asset management and introduction of scheduled retaining wall inspections.

Strengthening and Restrictions

Number of council owned / maintained weight restricted bridges (excluding acceptable weight restriction)	3
Number of council owned / maintained height / width restricted bridges	6
Number of council owned / maintained bridges that failed assessment Number of privately owned bridges within council's road network that failed assessment	Figures to be reviewed and updated on completion of 2012/13 programme
Number of council owned / maintained bridges subject to monitoring/special inspection regimes	9 no Managed as part of inspection regime

Caerphilly County Borough Council
Highways Asset Management Plan
Annual Status and Options Report

Current Strategies

CCBC have prioritisation spreadsheets and a scoring mechanism to prioritise repairs for walls, bridges and culverts. These are populated from information received from programmed and ad hoc inspections

Future Strategies

Future strategies will utilise the Bridge Condition Indicator inspections as appropriate to maintain and where possible increase the overall condition score of the asset.

Investment in Structures

The historical investment in Highway Structures has been as shown below

	2007-2008	**2008-09**	**2009-10**	**2010-11**	**2011-12**
Capital	97,000	218,000	15,000	539,000	585,000
Revenue	366,000	425,000	459,000	354,000	391,000

Caerphilly County Borough Council
Highways Asset Management Plan
Annual Status and Options Report

Output

The outputs that the budget was able to achieve in 2011-12 is shown below

Category	Cost (£s)	Output
Planned Maintenance - preventative	Nil	
Planned Maintenance - Corrective	£586k	2 bridges were fully refurbished/strengthened 1 wall replaced 14 bridges minor maintenance 14 retaining walls minor maintenance
Routine Cyclic Maintenance	Nil	
Routine - Reactive Repairs (emergency)	£150k	
Routine - Reactive Repairs (non-emergency)	£24k	
Routine - Inspection & Survey	£105k	Includes Principal Inspections of all structures on A467 Wattsville to Risca
Overhead	£24k	Pro rata'd Client cost as opposed to design/supervision fees from Highways SLA fees
Insurance Claim Provision	£20k	There were No 3rd party claims associated with structures
Improvements		

Funding Needs

Short – Term Funding and Long- Term funding

This information will become available from the CSS Wales Structures Funding Need Assessment Spread-sheet and other historical information.

The current maintenance backlog estimates are bridges and culverts £855k, Walls £330k but these are reactive non-emergency repairs only and do no include for any cyclic or planned maintenance.

Bridge Strengthening

The bridge assessment programme to be completed in 2012/13 identified several substandard structures in the Authority. Three structures have weight restrictions while the remainder have either been strengthened or renewed or are inspected/monitored.

Caerphilly County Borough Council
Highways Asset Management Plan
Annual Status and Options Report

The current status of the remaining substandard structures is set out in the table below:

Bridge	***Structure Owner***	***Bridge No.***	***Location***	***Comments***	***Estimated Construction Costs***
Nant Gwaun-y-Bara	CCBC	154305	U/C Road Rudry	Deck replacement	£60,000
Tirphil Station Bridge	Network Rail	151804	A4049 Tirphil	Zero live load rating due to bearing stiffeners requirements 7.5t AWL.	£240,000
Crescent Road Bridge	CCBC	154306	Crescent Road, Caerphilly	Substandard bridge requires strengthening. Bridge is assessed as 3t.	£125,000
Bargoed Viaduct Long Culvert	CCBC	251900	A469, Bargoed	Provisional assessment shows structure to be substandard	£300,000
Cardiff Road, Caerphilly	Network Rail	154310	Caerphilly Station Bridge, A469	Preliminary findings 17t, trestle and troughing in north span.	£560,000
Penallta Road Bridge	Network Rail	3434	Penallta Road, Ystrad Mynach	Zero live load rating due to bearing stiffeners requirements, 3t due to concrete slab.	£345,000
Pen-y-Garreg Bridge	CCBC	151805	U/C Road, Deri	Weight restriction on structure but arch flattening out/failed - long term will require replacement/piping through.	£90,000
Bedwlwyn Road Bridge	Network Rail	3415	Bedwlwyn Road, Ystrad Mynach	Preliminary findings 17t	under review
Aberfawr Road Bridge	Rail Property	154206	Aberfawr Road, Abertridwr	Group 1 Fire Engines assessment capacity	£120,000
Bridge Street River Bridge	CCBC	151900	Bargoed	Substandard for AWL	£25,000
Pennar Lane Bridge	CCBC	1198	Pennar Lane, Petwynmawr	3t assessment	£115,000
Trinant Hall Viaduct	BGCBC/ CCBC	355	A467 Crumlin to Aberbeeg	Weight restriction maybe required if deterioration is not reversed	£2,400,000
Gwern-yDomen Bridge	CCBC		U/C Road Bedwas/ Rudry	3t	£100,000

Total: 4,480,000

Parapet Upgrading

Consideration to a prioritised list of parapet upgrades required within the county borough is to be given within the lifecycle plan for structures.

Priority 1 Refurbishment

It is intended that the CSS Wales/SCOTS structures funding need assessment method will be used to identify the "priority 1" structures which as a result of their condition (BCIcri), load carrying capacity and their location (network criticality) make them the highest priority for refurbishment. This exercise is due to be completed in December 2012 and will provide a prioritised list of structures requiring refurbishment and their estimated repair costs.

The current priority is the Trinant Hall Viaduct which is a cross border bridge shared with Blaenau Gwent on the main A467 Crumlin to Aberbeeg road. A joint scheme is planned in partnership with Blaenau Gwent for 2013/14 with a funding bid being progressed via the Local Government Borrowing Initiative.

Conclusion

The HAMP Annual Status and Options Report provides an overview of the main highway assets that will account for over 98% of the total by value. The approach adopted by Caerphilly is to focus on the high risk areas that will produce the best value for money for the investment available.

There needs to be a balance taken in the approach to ensure that the key areas of assisting in meeting the objectives locally of the Corporate Improvement Plan compliment the Regional SEWTA approach and benefit the national perspective.

It is evident that some of the most significant all round benefits will be achieved by increased investment in carriageway reconstruction and resurfacing. This investment will reduce the highway maintenance backlog figures, give a larger scale visual and condition improvement to the network which in turn should improve customer satisfaction levels, provide benefits to the economy and reduce highway authority insurance liabilities.

The footway investment will assist in addressing the highest insurance risk liability for the Authority. This work will also contribute to the authorities priorities of improving the look and feel of its streets.

The drainage investment will provide significant local benefits to residents who have been subject to previous internal flooding instances. It is important to note that the drainage asset management approach will need to give full consideration to the authorities Local Flood Risk Management Strategy that is currently being developed.

Some of the future structures investments that are currently planned are to be undertaken collaboratively with Blaenau Gwent on cross border structures on key parts of the network.

There are many varied structures across the borough and each provides a key role in ensuring the highway remains operational. Given the strategic link that some of these provide it is essential that investment is carefully considered in the longer term.

Street Lighting has received significant investment over previous years and although the asset is considered to be among the most modern and up to date in Wales, it is wholly evident that if further investment is ignored in the short to medium term, there will be significant long term implications.

In conclusion the proposed approach identified is considered and robust and provides a balanced benefit locally, regionally and nationally. This asset management approach will give due consideration to the authority aims and objectives and link to wider corporate objectives. It will allow officers and members to make better and more informed decisions demonstrating the outcomes that can be achieved.