

**REPORT TO:** Policy Performance and Review Committee

**MEETING DATE:** 26 November 2013

**BY:** Depute Chief Executive - Partnerships and Community Services

**SUBJECT:** Roads Asset Management - Annual Status and Options Report

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## **1. PURPOSE**

- 1.1 This report presents a summary of the Council's road assets at 1 April 2013. The report:
- 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.

## **2. RECOMMENDATIONS**

- 2.1 It is recommended that the council maintains the current level of investment and continue with adopting a preventative maintenance strategy in order to best utilise the monies available.
- 2.2 Although this will mean an increase in the use of surface dressing and slurry treatments, negative feedback from residents is likely to be low and short lived due to the advances in materials currently used and the limited seasonal duration of the works.
- 2.3 The treatments are quick as well as less costly than resurfacing and so will be less disruption to traffic whilst the works are being undertaken.

## **3. BACKGROUND**

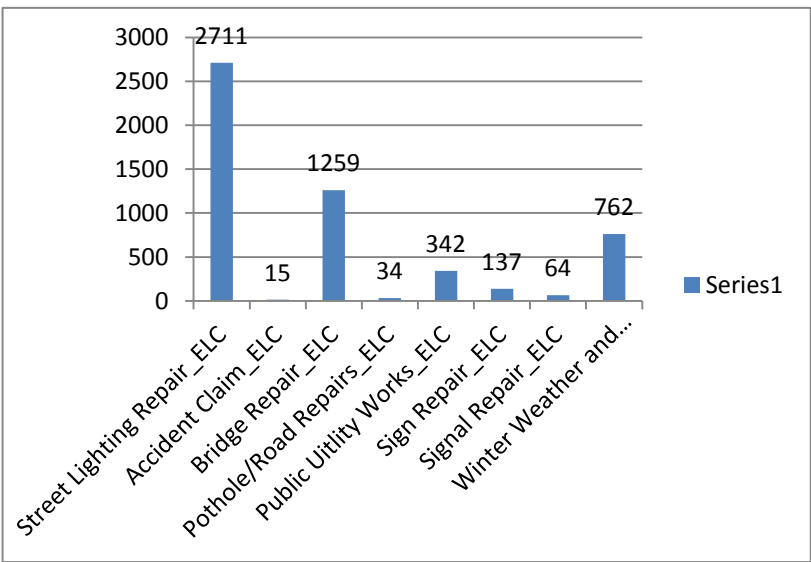
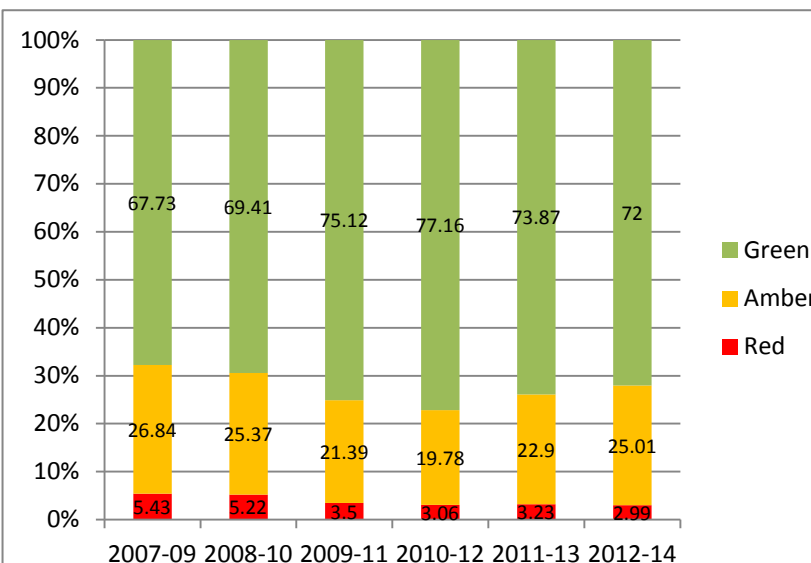
- 3.1 East Lothian Council, in conjunction with SCOTS and CSSW, are developing a structured approach to Roads Asset Management Planning in line with Central Government's financial reporting requirements being compliant with International Financial Reporting Standards (IFRS) and meets the needs of Whole of Government Accounts (WGA).

- 3.2 This report complements the Road Asset Management Plan (RAMP). It provides information to assist with budget setting for the carriageway asset group.
- 3.3 The status of the asset group is provided in terms of current condition, the outputs that are delivered, the standards being achieved and, where possible, an indication of customer satisfaction.
- 3.4 The report considers the following options:
- A continuance of current funding levels
  - The predicted cost of maintaining current standards
- 3.5 The report adopts the ethos of Long Term Forecasts as Road 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 yr forecasts to enable decisions to be taken with an understanding of their long term implications.
- 3.6 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.
- 3.7 Carriageways - Current Status Report**

Asset Group: Carriageway					
The Asset	Statistics				Commentary
	Road Class	Urban Length (km)	Rural Length (km)	Total Length (km)	
	A Road	32.8	62.4	95.2	
	B Road	35.4	134	169.4	
	C Road	15.5	207.4	222.9	
	Unclassified Road	229.9	198.5	428.7	
<b>Total Length (km)</b>	<b>313.6</b>	<b>602.3</b>	<b>915.9</b>		

- The level of carriageway inventory information is considered to be of a medium to high reliability. Information is stored on the NSG.
- A review and update of the NSG will be undertaken during 2014.
- The carriageway asset has grown <1% in the last 5 years. However, subject to meeting

**Asset Group: Carriageway**

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		<p>the SDP housing allocation significant grow of up to 15 % can be expected over the next 10 years.</p>																												
<b>Customer complaints</b>	 <table border="1"> <caption>Customer Complaints Data</caption> <thead> <tr> <th>Category</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Street Lighting Repair _ ELC</td> <td>2711</td> </tr> <tr> <td>Accident Claim _ ELC</td> <td>15</td> </tr> <tr> <td>Bridge/Road Repairs _ ELC</td> <td>1259</td> </tr> <tr> <td>Pothole/Road Repairs _ ELC</td> <td>34</td> </tr> <tr> <td>Public Utility Works _ ELC</td> <td>342</td> </tr> <tr> <td>Sign Repair _ ELC</td> <td>137</td> </tr> <tr> <td>Signal Repair _ ELC</td> <td>64</td> </tr> <tr> <td>Winter Weather and...</td> <td>762</td> </tr> </tbody> </table>	Category	Count	Street Lighting Repair _ ELC	2711	Accident Claim _ ELC	15	Bridge/Road Repairs _ ELC	1259	Pothole/Road Repairs _ ELC	34	Public Utility Works _ ELC	342	Sign Repair _ ELC	137	Signal Repair _ ELC	64	Winter Weather and...	762	<ul style="list-style-type: none"> <li>Road defects are the 2<sup>nd</sup> most common transport category that leads customers to contact Customer Services.</li> </ul>										
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**Asset Group: Carriageway**

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Year	Green (%)	Amber (%)	Red (%)																											
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Year	Green (%)	Amber (%)	Red (%)																											
2007-09	73.77	21.52	4.71																											
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2007-09	63.6	27.66	8.74																											
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**Asset Group: Carriageway**

		Statistics	Commentary												
<b>Performance Indicators</b>	Ref	Description	2012/13 Result	Comments											
	PI03b / (1.1.01)	% of Cat 1 defects made safe within response times	54.60%												
	PI39 / (1.2.01)	% of safety inspections completed on time	100%												
	PI40 / (2.1.01)	% of carriageway length to be considered for maintenance treatment	31.60%												
	PI41 / (2.1.02)	% of carriageway length treated	5.02%												
	PI42 / (6.1.01)	Total carriageway maintenance expenditure by carriageway length	£5,209/km												
		Total cost per km of carriageway travelled for precautionary treatment	£4632												
<b>Historical Investment</b>	<table border="1"> <caption>Historical Investment Data (Estimated from Chart)</caption> <thead> <tr> <th>Category</th> <th>2011-12</th> <th>2012-13</th> </tr> </thead> <tbody> <tr> <td>Planned</td> <td>~5,500,000</td> <td>~2,800,000</td> </tr> <tr> <td>Reactive</td> <td>~400,000</td> <td>~200,000</td> </tr> <tr> <td>Routine</td> <td>~300,000</td> <td>~400,000</td> </tr> </tbody> </table>		Category	2011-12	2012-13	Planned	~5,500,000	~2,800,000	Reactive	~400,000	~200,000	Routine	~300,000	~400,000	<ul style="list-style-type: none"> <li>Planned works comprise of maintenance programmes which target renewing the asset</li> <li>In 2010/11 the planned works budget peaked at over £6m. However, this was as a consequent of additional funding to address impairment damage caused by consecutive severe winter events. Additional funding was also made within the 2011-12</li> <li>Reactive works are works to address smaller scale defects which require repair to reduce safety concerns.</li> <li>The reactive budget is based on historical costs and is approximately £200k pa.</li> </ul>
	Category	2011-12	2012-13												
Planned	~5,500,000	~2,800,000													
Reactive	~400,000	~200,000													
Routine	~300,000	~400,000													

**Asset Group: Carriageway**

		<b>Statistics</b>	<b>Commentary</b>
<b>Investment and Output (2011/12)</b>	<b>Cost Category</b>	<b>£?k</b>	<b>Output</b>
	Planned Maintenance - Preventative	£382,811k	- 42905m <sup>2</sup> (4.69%) of surface dressing
	Planned Maintenance - Corrective	£2,426,132	- 58,745m <sup>2</sup> (1.3%) of 40mm resurfacing (£1,620,267k) - 4864m <sup>2</sup> (0.81%) of 100mm resurfacing (£208,209) - 3503m <sup>2</sup> of reconstruction (£626,532)
	Routine Cyclic Maintenance	£379k	- 12443 no. (100%) Gullies Clean (£196k) 591Km. Highway verge swathe and visibility splays cut in rural areas (£40.2k) - road-marking renewed (£100k) - Signs Maintained (£26.9k)
	Routine - Reactive Repairs (emergency)	£250k	- Emergency call outs (£84k) - 315 (11.4%) cat 1 defect repairs (£32,825k) - 7 no. Flooding Events (£135k)
	Routine - Reactive Repairs (non-emergency)	£975k	- 2432 No (88%) of pothole patching (£253,385k) - 13,369 m <sup>2</sup> (0.32%) of Planed Patching (£409k) -
	Routine - Inspection & Survey	£13k	- Condition surveys (£13k) SRMCS
	Operating Costs	£1,426,942k	- winter service
	Overhead *	N/A	-
	Loss#	£18.87k	- 12 no 3 <sup>rd</sup> party claims associated with carriageways
<b>Valuation</b>	Gross Replacement Cost	£820,204,000	The annualised depreciation (AD) was £3.9m which represents the average amount by which the asset will depreciate in one year if there is no investment in renewal of the asset.
	Depreciated Replacement Cost	£742,185,000	
	Annualised Depreciation Charge	£3,900,950	

Asset Group: Carriageway		
	Statistics	Commentary
<b>Key Issues</b>	<ul style="list-style-type: none"> <li>• The Scottish Roads Maintenance Condition Survey (SRMCS) – RCI indicates that approximately 30% of the public roads within East Lothian should be investigated and considered for maintenance treatment (274.5 km).</li> <li>• The SRMCS also indicates that 3.54% of the public roads in East Lothian require immediate investigation and possible treatment. This equates to 32.4km of carriageway.</li> <li>• The survey identifies 6.1km of urban roads requiring treatment with 2.7 km in residential areas, which attracts the majority of customer complaints. Output from the Safety Inspection regime suggests that there are a significant number of temporarily repaired defects (non-dangerous) that are outstanding or which require routine treatment on a priority basis. Funding has been made available through the general roads capital expenditure to undertake permanent patching works to rectify these defects. This work is ongoing.</li> <li>• The survey has identified 20.3km of rural public roads, which are in need of further investigation.</li> <li>• East Lothian Councils steady state figure is calculated at £2,800,000</li> <li>• The number of carriageway reported public liability claims is decreasing year on year but the cost of settling claims is increasing.</li> <li>• Work is ongoing to develop a formal set of policies and service standards in relation to the maintenance and management of the carriageways.</li> <li>• Winter weather continues to have a greater than average detrimental effect to the condition of the network. Albeit conditions have not been experienced to the degree of (2009/10), accelerated damage is still being experienced. This is likely to continue due to the underlying age of the network.</li> <li>• It is unlikely that the Service will be able to resource all the required interventions.</li> <li>• Commodity costs are increasing year on year. Over the last 5 years a tonne of asphalt has increased 40%.</li> </ul>	
<b>Current Strategies</b>	<ul style="list-style-type: none"> <li>• The process of identifying the policy requirements necessary to maintain the current level of Service will be presented to Council for ratification as part of the Road Asset management planning process .</li> <li>• A three year capital plan has safe guarded current investment levels. Investment in carriageways is being made through carriageway reconstruction, resurfacing and preventative treatments. These measures are designed to maintain the ‘steady state’ condition of the carriageway network at a constant annualised depreciated value in line with previous years.</li> <li>• The overall capital investment is reviewed annually to proportion funding between asset groups and carriageway hierarchies. An investment of £3.13 million is planned for 2013/14. Funding is subsequently allocated to maintain a level of service on priority routes but also meet customer requests for improvements maintaining functional safety and accessibility level. The needs assessment process to rank schemes takes cognisance of RCI data, visual inspection, defects temporarily repaired and customer complaints.</li> </ul>	

Asset Group: Carriageway		
	Statistics	Commentary
	<ul style="list-style-type: none"> <li>Funding will be adjusted to £3,365,000 accommodating an additional spends of £250,000 in non emergency routine patching works.</li> <li>The Service is striving to implement a proactive methodology towards road maintenance.</li> <li>The constant erosion of investment (particularly in real terms), combined with winter weather and flooding events, is hindering this strategy and still requires a more reactive approach.</li> </ul>	
<b>Current Status</b>	<p>As at 31 March 2013</p> <ul style="list-style-type: none"> <li>→ annual budget is being maintained over time</li> <li>↑ commodity costs are increasing</li> <li>↓ staff resources are reducing</li> <li>↑ overall carriageway condition is improving (RCI 31.6 to 30.0)</li> <li>↓ decreasing quantities of minor defects (pot holes and the like)</li> <li>↓ decrease in 3<sup>rd</sup> party claims</li> <li>↑ Increase in the cost of settling claims.</li> </ul>	

### 3.8 Carriageway Options

#### 3.8.1 Option 1: Maintain Current Budget Investment Levels

##### Budget

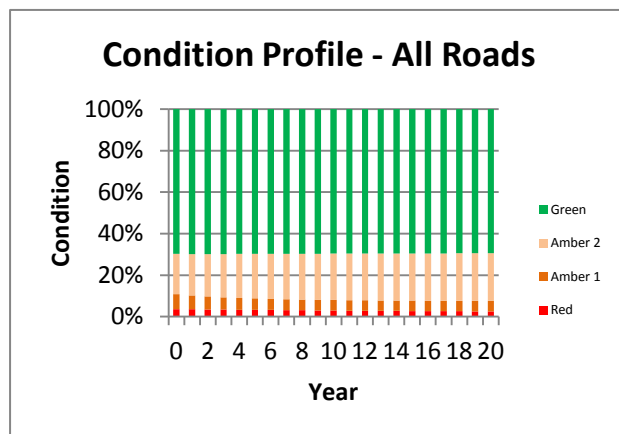
The first option comprises a continuance of current funding levels as shown below:

RAMP Cost Category	Expenditure (£000's) (2014/15 actual)	%
Routine - Reactive Repairs (emergency)	£430	9%
Routine - Reactive Repairs (non-emergency) - Patching	£250	5%
Routine Cyclic Maintenance	£50	1%
Planned Maintenance - Preventative	£565	12%
Planned Maintenance - Corrective	£2550	55%
Inspections and survey (not covered under staff costs)	£13	1%



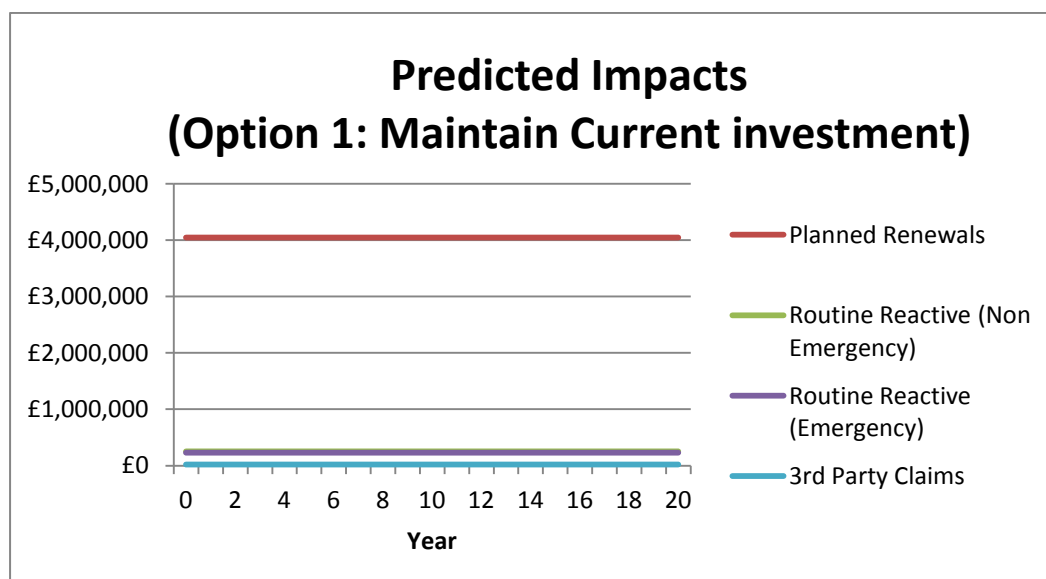
Operating Costs (winter service)	£1,000	21%
<b>TOTAL</b>	<b>£4,858</b>	
Loss (3 <sup>rd</sup> Party Claims associated with (c/ways)	£20	1%
<b>TOTAL</b> (including claims costs)	<b>£4878</b>	

### Predicted Condition



This shows a continuing deterioration of the carriageways over time resulting in the percentage of carriageway in need of maintenance (red + amber condition) increasing from the current 30% to 38.43% in 20 years.

### Predicted Impacts



### Reactive Maintenance

Continuance of this budget is likely to increase the level of reactive repairs substantially over time.

### 3rd Party Claims

The current downward trend of 3<sup>rd</sup> party accident claims will be reversed with increased payouts.

## Customer Satisfaction

Customer satisfaction is expected to decrease with the worsening condition of the carriageways network.

## Future Costs

It is estimated that the cost of reactive maintenance will increase annually over the 20 year period resulting in a cost of £1.1M in 2033/4.

## 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. overall carriageway condition will deteriorate
- c. increasing quantities of minor defects (pot holes and the like)
- d. potential for increase in 3<sup>rd</sup> party claims
- e. likelihood of decreased customer satisfaction as a result of increasing repairs and length of time to react to repair defects.

Total cost (over 20 years) is estimated at **£67,300,000m** for planned works. Overall carriageway condition is will likely to deteriorate. Reactive repairs are calculated at £12,600,000. (No allowance has been made for construction inflation currently running at approximately 6% per annum)

### 3.8.2 Option 2: Maintain Current Condition

#### Budget

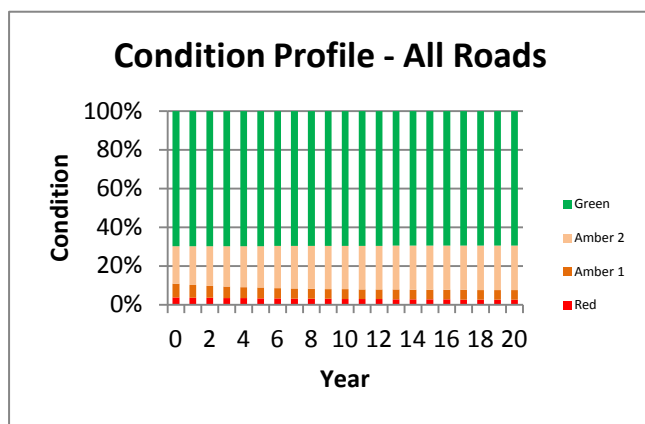
The second option comprises a continuance of current condition levels as shown below:

HAMP Cost Category	Expenditure (£000's) (2013/14 actual)	%
Routine - Reactive Repairs (emergency)	£430	8%
Routine - Reactive Repairs (non-emergency) - Patching	£350	6%
Routine Cyclic Maintenance	£70	1%
Planned Maintenance - Preventative	£700	13%
Planned Maintenance - Corrective	£2990	53%
Inspections and survey (not covered under staff	£13	2%

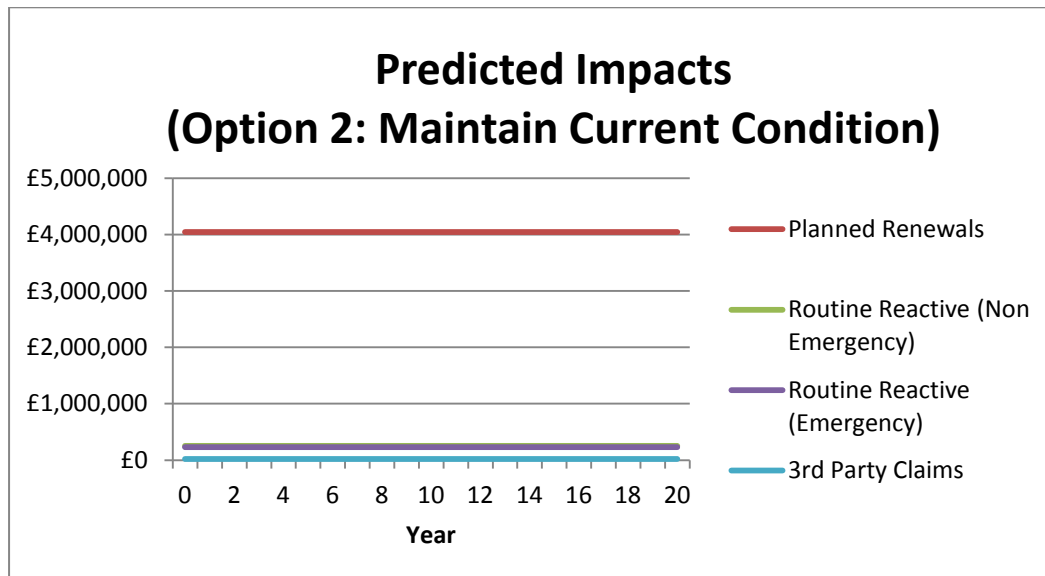
costs)		
Operating Costs (winter service)	£1000	17%
<b>TOTAL</b>	<b>£5553</b>	
Loss (3 <sup>rd</sup> Party Claims associated with (c/ways)	£20	1%
<b>TOTAL (including claims costs)</b>	<b>£5573</b>	

Increase in budget £695,000 spent on planned preventative and corrective maintenance.

### Predicted Condition



This shows the condition of the carriageways remaining the same over time.



## **Predicted Impacts**

### **Reactive Maintenance**

Continuance of the condition is likely to mean the level of reactive repairs needed remains similar to current levels or will improve over time.

### **3rd Party Claims**

3<sup>rd</sup> party claims are expected to remain the same

### **Customer Satisfaction**

Customer satisfaction is expected to increase due to the shorter time taken to undertake repairs as it is expected the number of faults decreases.

### **Future Costs**

Costs will have to be adjusted to reflect commodity increases and inflationary pressures but will likely remain the same provided there is no external influence to accelerate deterioration of the network.

### **Option Summary**

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

- a. an increase to the carriageway budget will be retained over the forecast period
- b. the condition of the carriageway network will be maintained
- c. the no. of minor defects should reduce or at least remain the same (pot holes and the like)
- d. 3<sup>rd</sup> party claims are expected to reduce over time.
- e. Likelihood of increased customer satisfaction due to less carriageway defects and improved repair times.

Total cost (over 20 years) estimated at **£80.89m**. Annual cost £4.44m, remaining the same over time. (No allowance has been made for construction inflation current running at approximately 5% per annum)

#### **4. POLICY IMPLICATIONS**

4.1 None

#### **5. EQUALITIES IMPACT ASSESSMENT**

5.1 This report is not applicable to the well being of equalities groups and an Equalities Impact Assessment is not required.

#### **6 RESOURCE IMPLICATIONS**

6.1 Financial - as above

6.2 Personnel - none

6.3 Other - none

#### **7 BACKGROUND PAPERS**

7.1 None

<b>AUTHOR'S NAME</b>	Ray Montgomery
<b>DESIGNATION</b>	Head of Infrastructure
<b>CONTACT INFO</b>	Peter Forsyth
<b>DATE</b>	15 November 2013