

# Appendix 3



## Transport Asset Management Plan (TAMP)

### Section 2 – Annual Update Report 2016



<b>Date</b>	<b>20 March 2017</b>
<b>Status</b>	<b>Draft</b>
<b>Prepared by</b>	<b>John Reed, Head of Technical Services</b>
<b>Approved by</b>	

#### Contents

1.	Introduction.....	2
2.	Inventory .....	3
3.	Condition.....	4

3.4	Department for Transport Statistics .....	6
3.5	Conclusions .....	7
4.	Maintenance Backlog .....	7
5.	Public Satisfaction.....	10
6.	Customer Feedback .....	11
7.	Performance.....	12
8.	Valuation .....	13
9.	Budgets .....	15
10.	Investment Levels.....	17
11.	Feedback.....	18
	Appendix 1 - Inventory Summary.....	19
	Appendix 2 - Projected Condition and Maintenance Backlog .....	20
	Appendix 3 - Condition Benchmarking .....	22

## 1. Introduction

1.1 The Transport Asset Management Plan (TAMP) is divided into two sections:

- Section 1 - Policy; and
- Section 2 - Annual Update Report.

1.2 This Annual Update Report provides an update to stakeholders on:

- Inventory;
- Condition;
- Maintenance backlog;
- Public satisfaction;
- Performance;
- Valuation;
- Budgets; and
- Investment levels.

## 2. Inventory

2.1 The inventory is a database containing details of the individual assets that make up the highway network.

2.2 It is vital to know what assets exist and where so they can be inspected, surveyed and maintained to appropriate service levels.

2.3 The inventory at 31 March 2016 is summarised in the table below:

Asset	Unit	Adopted	DCC Unadopted	Private Unadopted	Total	RAG Rating
<b>Carriageway</b>						
A	Km	415	0	0	415	G
B	Km	406	0	0	406	G
C	Km	697	0	0	697	G
Unclassified	Km	2,276	18	117	2,411	G
Sub-Total		3,794	18	117	3,929	
<b>Kerbing</b>	Km	4,605	23	153	4,781	R
<b>Drainage</b>						
Gullies	Number	110,462	1,371	3,864	115,697	R
Ditches	Km	262	16	44	322	R
Pipework	Km	377	4	12	393	R
<b>Road markings</b>						
Lines	Km	2,250	8	23	2,281	R
Other items	Number	22,331	179	503	23,013	R
<b>Footway</b>						
Bitumen	Km	3,379	81	93	3,553	G
Flagged	Km	427	8	21	456	G
Concrete	Km	58	3	20	81	G
Block paved	Km	19	1	2	22	G
Other	Km	3	10	5	18	G
Sub-Total		3,886	103	141	4,130	
<b>Structures</b>						
Road bridges	Number	490	0	0	490	G
Footbridges	Number	47	459	0	506	G
Retaining walls	Number	251	13	0	264	A
Culverts	Number	64	0	0	64	G
Subways	Number	34	0	0	34	G

Other	Number	112	6	0	118	G
Sub-total		998	478	0	1,476	
<b>Street lighting</b>						
Columns/ Lanterns	Number	83,027	0	0	83,027	G
Lit Signs	Number	5,477	0	0	5,477	G
Sub-total		88,504	0	0	88,504	
<b>Traffic Management</b>						
Traffic lights	Number	66	0	0	66	G
Pedestrian crossings	Number	73	0	0	73	G
Sub-Total		139	0	0	139	
<b>Street Furniture</b>						
Safety fencing	Km	53	0	0	53	A
Bollards	Number	12,443	0	0	12,443	R
Salt/grit bins	Number	2,378	0	0	2,378	A
Waste bins	Number	7,067	0	0	7,067	R
Unlit signs	Number	63,132	808	2,277	66,217	R
PROW/ bridleway signs	Number	4,300	0	0	4,300	R
Trees	Number	5,000	0	0	5,000	R
<b>Land</b>						
Urban	M <sup>2</sup>	19,564,540	388,476	608,600	20,561,616	G
Rural	M <sup>2</sup>	11,454,608	226,202	354,375	12,035,185	G
Sub-Total	M <sup>2</sup>	31,019,148	614,678	962,975	32,596,801	-

2.4 The RAG (Red, Amber, Green) Rating denotes the accuracy of the inventory where:

Inventory RAG Rating	Description
R (Red)	Low accuracy
A (Amber)	Moderate accuracy
G (Green)	High accuracy

2.5 There are gaps in the inventory and condition data relating to some minor assets. These gaps will continue to be addressed through further surveys as far as it is proportionate and economic to do so.

2.6 The inventory grows each year due to new developments. A summary showing the growth in the inventory is shown in Appendix 1.

2.7 The growth in the inventory puts pressure on maintenance budgets as they have to cover more assets each year.

### 3. Condition

3.1 Condition is summarised as follows in accordance with the policy:

Asset	Description	Performance
-------	-------------	-------------

		2013	2014	2015	2016	Good Condition Target	Fair Condition Target
<b>Carriageway</b>							
A – Roads	% where maintenance should be considered	5.5%	4.6%	4.9%	4.1%	0.0%	4.0%
B – Roads		9.2%	8.0%	7.5%	5.3%	0.0%	4.0%
C – Roads		9.3%	8.1%	5.0%	3.6%	0.0%	4.0%
Unclassified Roads	% where maintenance should be considered	21.0%	22.0%	19.0%	20.0%	0.0%	8.0%
All Roads	% where maintenance should be considered	15.8%	16.0%	13.6%	13.7%	0.0%	6.4%
<b>Kerbing</b>	% where replacement should be considered	10.0%	10.0%	10.0%	10.0%	0.0%	5.0%
<b>Drainage</b>	% where replacement should be considered	12.0%	10.0%	10.0%	10.0%	0.0%	5.0%
<b>Road Markings</b>	% where replacement should be considered	30.0%	50.0%	55.0%	55.0%	0.0%	10.0%
<b>Footways</b>	% structurally unsound	27.8%	27.1%	26.4%	24.1%	0.0%	5.0%
<b>Structures</b>	Bridge Condition Index – Principal roads	93.9	94.0	88.3	83.8	100.0	95.0
	Bridge Condition Index – Non-Principal Roads	88.0	88.0	86.4	83.7	100.0	95.0
	Other (using form of Bridge Condition Index)	66.0	66.0	66.0	66.0	100.0	85.0
<b>Street Lighting</b>	% columns > 40 years	18.1%	17.5%	17.7%	14.9%	0.0%	5.0%
	% lanterns > 20 years	50.2%	45.9%	25.8%	28.6%	0.0%	5.0%

	% lit signs where replacement should be considered	19.3%	20.0%	17.9%	17.9%	0.0%	5.0%
<b>Traffic Management</b>	No. sites > 15 years	23	22	19	19	0	10
<b>Street Furniture</b>							
Safety fencing	% where replacement should be considered	8.0%	6.0%	6.0%	6.0%	0.0%	5.0%
Bollards	% where replacement should be considered	10.0%	10.0%	10.0%	10.0%	0.0%	5.0%
Salt/grit bins	% where replacement should be considered	8.0%	8.0%	8.0%	8.0%	0.0%	5.0%
<b>Unlit signs</b>							
Road signs	% where replacement should be considered	10.0%	10.0%	10.0%	10.0%	0.0%	5.0%
Street Name Plates	% where replacement should be considered	15.0%	15.0%	15.0%	15.0%	0.0%	5.0%
PROW signs	% where replacement should be considered	3.0%	3.0%	3.0%	3.0%	0.0%	5.0%

3.2 The good condition target represents where the maintenance backlog will be zero with no defects. This is an ideal theoretical target which is not realistic in practice.

3.3 The fair condition target represents a realistic target of acceptable condition subject to available funding.

3.4 ***Department for Transport Statistics***

3.4.1 The condition of local roads is reported to and monitored nationally by the Department for Transport. The latest results published on 24 March 2016 for 2014/15 can be found at the following link:

<https://www.gov.uk/government/statistics/road-conditions-in-england-2015>

3.4.2 The results allow comparisons to be made between local Authorities across England and are summarised in Appendix 3 – Condition Benchmarking.

3.4.3 The key findings are that:

- DCC A Roads are national average condition (Rank 99/147);
- DCC B and C Roads are slightly worse than the national average (Rank 70/146); and
- DCC Unclassified Roads are worse than the national average (Rank 87/128).

### 3.5 **Conclusions**

3.5.1 The condition of the A, B, and C roads is improving; this may be due to a funding strategy which has prioritised the classified road network over the unclassified road network.

3.5.2 The condition of unclassified roads has remained stable, which is welcomed when considered against the funding strategy outlined above, but this still remains a key issue.

3.5.3 The condition of footways is showing a gradual improvement but still remains a key issue.

## 4. **Maintenance Backlog**

4.1 The maintenance backlog is the value of programmed capital maintenance required to bring the highway asset up to good condition.

4.2 The method of calculation is as follows:

<b>Asset</b>	<b>Description</b>
Carriageway	<p>The nationally accredited UK Pavement Management System (UKPMS) software system identifies the appropriate treatment for each 100m section of carriageway/footway.</p> <p>UKPMS selects A, B and C classified carriageway surveyed by SCANNER in a Red condition for treatment but also some sections in an Amber and Green condition where it is justified on asset management principles.</p> <p>Unclassified roads are surveyed by Coarse Visual Inspection (CVI) and processed in a similar manner to that of Scanner via the UKPMS system.</p>
Footway	A Footway Network Survey (FNS) has been adopted whereby the condition of the surface is assessed into four conditions, 1 being 'as new', and 4 being 'structurally unsound'. This data can be put into UKPMS to identify the appropriate treatment and calculate required financial data.
Kerbing	The maintenance backlog is the % requiring replacement multiplied by the inventory and the unit rate.
Drainage	The maintenance backlog is the % requiring replacement multiplied by the inventory and the unit rate.
Road Markings	The maintenance backlog is the % requiring replacement multiplied by the inventory and the unit rate.
Structures	The backlog is calculated by completing a manual analysis of the Bridge Condition Indicator (BCI) and the routine inspection data, assessing each individual components needs and applying a unit rate to each. The cost of any overdue inspections, the renewal of individual components in excess of their useful life and upgrading of any underperforming structures is included.
Street Lighting	<p>Number of columns &gt; 40 years</p> <p>Number of luminaries &gt; 20 years</p> <p>Lit signs - maintenance backlog is the percentage requiring replacement multiplied by the inventory and the unit rate.</p>
Traffic Management	Number of sites > 15 years
Street Furniture	The maintenance backlog is the % requiring replacement multiplied by the inventory and the unit rate.
Safety Fencing	
Bollards	
Salt/grit bins	
Unlit signs	
Road signs	
Street Name Plates	
PROW signs	

4.3 The maintenance backlog as at 31 March 2016 is summarised as follows:



	Units	Adopted		Unadopted		Total	
		Amount	£M	Amount	£M	Amount	£M
<b>Carriageways</b>							
Strengthen	Km	136.0	13.0	50.8	24.4	186.8	37.4
Resurface	Km	357.4	27.5	15.4	1.4	267.9	23.5
Surface Improvement	Km	518.6	13.0	19.3	0.4	1,924.7	11.4
Edge Improvement	Km	37.8	3.8	0.0	0.0	37.8	3.8
Sub-Total		1,049.8	57.3	85.5	26.2	2,417.2	76.1
<b>Kerbing</b>	Km	460.5	18.5	20.7	0.7	481.2	19.2
<b>Drainage</b>	Number	11,046.0	5.6	524.0	0.2	11,570.0	5.8
<b>Road Markings</b>	Km	1,237.5	0.9	50.0	0.1	1,287.5	1.0
<b>Footways</b>							
Reconstruction	Km	405.7	21.7	11.3	2.5	417.0	24.2
Overlay/Relay/ Flagging	Km	380.4	6.2	26.5	0.5	406.9	6.7
Repair/Relay	Km	479.8	17.0	26.5	0.5	506.3	17.5
Surface improvement	Km	406.2	2.6	110.5	0.5	516.7	3.1
Sub-Total		1,672.1	47.5	174.8	4.0	1,846.9	51.5
<b>Structures</b>	Number	969	36.0	479.0	9.7	1,448.0	45.7
<b>Street Lighting</b>							
Column replacements	Number	10,153.0	12.5	0	0	10,153.0	12.5
Luminaire replacements	Number	23,864.0	8.3	0	0	23,864.0	8.3
Lit signs	Number	980.0	1.3	0	0	980.0	1.3
Sub-Total		34,997.0	22.1	0	0	34,997.0	22.1
<b>Traffic Management</b>							
Replacements	Number	19.0	1.0	0.0	0.0	19.0	1.0
<b>Street Furniture</b>							
Safety fencing	Km	4.2	2.8	0	0.1	4.2	2.9
Seats, litter bins etc.	Number	10,707.0		430.0		11,137.0	
<b>Total</b>	-	-	191.7	-	41.0	-	225.3

4.4 The maintenance backlog for the adopted highway over the past 5 years is summarised as follows:

Maintenance Backlog	31 March £Millions				
	2012	2013	2014	2015	2016
<b>Carriageways</b>					
Strengthen	19.8	19.9	19.6	16.0	13.0
Resurface	36.8	36.9	36.4	31.6	27.5
Surface Improvement	7.9	7.9	7.8	8.8	13.0
Edge Improvement	3.0	3.0	3.0	2.8	3.8
<b>Sub-Total</b>	<b>67.5</b>	<b>67.7</b>	<b>66.8</b>	<b>59.2</b>	<b>57.3</b>
<b>Kerbing</b>	<b>18.1</b>	<b>18.2</b>	<b>20.2</b>	<b>18.4</b>	<b>18.5</b>
<b>Drainage</b>	<b>5.4</b>	<b>5.4</b>	<b>5.8</b>	<b>5.6</b>	<b>5.6</b>
<b>Road Markings</b>	<b>0.8</b>	<b>0.8</b>	<b>0.5</b>	<b>0.9</b>	<b>0.9</b>

<b>Footways</b>					
Reconstruction	25.5	25.6	24.9	25.9	21.7
Overlay/Relay/Flagging	7.2	7.2	7.0	6.4	6.2
Repair/Relay	11.4	11.5	11.1	11.8	17.0
Surface improvement	4.0	4.1	4.0	3.6	2.6
<b>Sub-Total</b>	48.1	48.4	47.0	47.7	47.5
<b>Structures</b>	9.9	9.9	9.9	22.4	36.0
<b>Street Lighting</b>					
Column replacements	10.9	11.7	11.0	14.7	12.5
Luminaire replacements	12.1	12.1	10.9	7.5	8.3
Lit sign replacements	1.8	1.8	1.4	1.3	1.3
<b>Sub-Total</b>	24.8	25.6	23.3	23.5	22.1
<b>Traffic Management</b>	1.1	1.1	1.1	1.0	1.0
<b>Street Furniture</b>	2.3	2.5	2.4	2.4	2.8
<b>Total</b>	178.0	179.6	177.0	181.1	191.7

4.5 Maintenance backlog has increased, mainly due to the number of principle inspections used to calculate the backlog for Structures. This is offset slightly by a decrease in backlog for those assets that have shown an improvement in condition.

4.6 Nearly every Local Highway Authority has a highway maintenance backlog apart from those that have received extra funding from the Government to undertake Highway Maintenance PFI Projects to clear their maintenance backlogs.

4.7 The maintenance backlog should be considered in the context of the overall value of the highway asset.

4.8 Durham County Council's backlog is broadly in line with other Councils based on the Annual Local Authority Road Maintenance (ALARM) Survey 2016 which estimates the backlog for England at £11.8 billion for carriageways and footways. The ALARM Survey can be found at the following link:

<http://www.asphaltindustryalliance.com/alarm-survey.asp>

## 5. Public Satisfaction

5.1 The Council participates in the National Highways & Transportation (NHT) Public Satisfaction Survey which is undertaken by IPSOS/MORI. The details of the survey can be found at the following link:

<http://nhtsurvey.econtrack.com/>

5.2 The results are summarised as follows:

Key Benchmark Indicator (KBI)	% Public Satisfied (Year)							
	2008	2009	2010	2011	2012	2013	2014	2016
<b>Overall</b>								
<b><i>KBI 01 - Overall (local)</i></b>								
Durham County Council	N/A	57.9	55.9	54.6	58.4	N/A	57.0	58.0
North East	56.0	58.7	57.8	55.5	57.9	54.7	57.5	57.0
National Average	55.3	56.2	56.2	55.4	55.9	55.0	55.3	55.0
<b><i>KBI 02 - Overall (national)</i></b>								
Durham County Council	N/A	57.8	55.8	54.4	58.3	N/A	57.0	58.0
North East	55.9	58.6	57.7	55.4	57.8	54.7	57.4	57.0
National Average	55.3	56.2	56.2	55.4	55.9	55.0	55.3	55.0
<b>Highway Maintenance</b>								
<b><i>KBI 23 - Condition of highways</i></b>								
Durham County Council	N/A	45.1	37.5	33.8	37.7	N/A	38.2	45.0
North East	43.0	46.6	40.3	32.6	38.4	26.4	37.5	41.0
National Average	44.4	42.8	38.6	34.7	36.6	31.1	34.4	38.0
<b><i>KBI 24 - Highway maintenance</i></b>								
Durham County Council	N/A	55.1	48.3	46.2	47.8	N/A	49.4	55.0
North East	51.8	54.8	50.7	47.0	49.1	46.6	49.4	53.0
National Average	53.1	52.1	50.2	49.3	49.0	49.6	49.4	53.0
<b><i>KBI 25 - Street lighting</i></b>								
Durham County Council	N/A	72.8	70.6	70.6	72.9	N/A	69.7	65.0
North East	69.1	72.9	72.6	70.8	71.1	68.8	70.3	68.0
National Average	67.8	68.1	68.8	68.2	67.4	67.4	66.9	66.0
<b><i>KBI 26 - Highway enforcement/obstructions</i></b>								
Durham County Council	N/A	51.9	47.9	49.3	49.8	N/A	47.7	50.0
North East	48.6	52.2	51.0	50.3	51.0	48.3	48.5	50.0
National Average	50.2	50.6	50.5	52.2	50.4	49.4	48.2	49.0

5.3 The Council did not participate in 2008, 2013 or 2015. The Council agreed in 2012 to participate on a bi-annual basis.

5.4 The results above show that there is low satisfaction with the condition of the highway nationally and across the North East. However, the results for 2016 for five of the six indicators for 2016 compared to 2014 show a positive direction of travel.

## 6. Customer Feedback

6.1 The customer feedback in terms of service requests, complaints, compliments and suggestions received is summarised as follows:

Customer Feedback		Year Ending 31 March 2016	
		Number	Responded within Target %
Service Requests	Category 1 Safety Defects	9,599	84%
	Category 2.1 Safety Defects	31,878	81%
	Category 2.2 Safety Defects	20,399	63%
	Category 2.3 Safety Defects	4,278	85%
	Structures	142	N/A
	Street Lighting	12,540	83%
	Winter Maintenance	1,068	100%
	Flooding	701	100%
	Gully Cleansing	97,842	91%
	Traffic	1,232	100%
	Network Management	422	N/A
Complaints - Service Review	Number investigated	64	81%
	Fully upheld	13	
	Partially upheld	17	
	Not upheld	38	
Complaints – Independent Investigation	Number investigated	13	54%
	Fully upheld	0	
	Partially upheld	0	
	Not upheld	13	
Compliments and Suggestions	Compliments	56	N/A
	Suggestions	5	N/A

6.2 The above is also monitored through the Council's quarterly performance reports which are available on our website at the following link:

<http://durham.gov.uk/article/2427/quarterly-reports>

6.3 Service requests are responded to in accordance with the service levels set out in our Highway Maintenance Plan and Winter Maintenance Plan.

6.4 Complaints are considered in line with the Council's Complaints Policy.

6.5 The Council also participates in the National Highways and Transportation Public Satisfaction Survey as detailed in Section 5.

6.6 Highway officers provide regular updates to Councillors and Area Action Partnerships who also provide feedback. All this customer feedback helps inform the Transport Asset Management Plan including investment levels and priorities.

## 7. Performance

7.1 The performance against the objectives set out in TAMP Section 1 - Policy is as follows:

Primary Objectives	Secondary Objectives	Performance Measure	Year Ending 31 March				
			2012	2013	2014	2015	2016
Safety	Complying with statutory obligations	Public liability claims repudiation rate	92%	96%	95%	94%	93%
	Meeting user's needs for safety	Completion of Highway Safety Inspections	100%	100%	100%	100%	100%
		Response to Category 1 and 2 safety defects (Target 95%)	Not available	Not available	Cat1 75% Cat2 78%	Cat1 95% Cat2 83%	Cat1 92% Cat2 78%
Serviceability	Ensuring availability	Effective	<1%	<1%	< 1%	<1%	<1%
		Streetworks Licensing system to minimise number of unplanned utility overruns					
	Achieving integrity	Condition surveys	See Table 3.1				
	Maintaining reliability	NHT Public Satisfaction Survey	See Table 5.2				
	Enhancing condition	Programmed maintenance	See Table 9.4				
Sustainability	Minimising whole life costs	Lifecycle plans	See Appendix 2				
	Maximising value to the community	Not quantifiable	N/A	N/A	N/A	N/A	N/A
	Minimising environmental impact	Maintaining accreditation and compliance with ISO 14001 Environmental Management	Achieved	Achieved	Achieved	Achieved	Achieved

## 8. Valuation

8.1 The Code of Practice on Local Authority Accounting in the United Kingdom requires that the adopted highway is included in the Council's Financial Statements as a fixed asset in the balance sheet. This is part of the Government's Whole of Government Accounts (WGA) initiative to align with International Financial Reporting Standards (IFRS).

- 8.2 The benefit of including the adopted highway as an asset in the financial statements is that it informs stakeholders of the true cost of holding and maintaining the asset which in turn supports good asset management.
- 8.3 The asset is included within the financial statements at depreciated Replacement Cost (DRC). Depreciated replacement cost is a method of valuation that provides the current cost of replacing an asset with its modern equivalent asset (gross replacement cost), less deductions for all physical deterioration and impairment (accumulated depreciation).
- 8.4 The difference between the gross and depreciated cost is the cost of restoring the asset from its present condition to 'as new'.
- 8.5 The condition of assets with a finite economic life will deteriorate each year due to the wearing out and using up of the asset. The deterioration of assets such as carriageways and footways may be accelerated where episodes of severe weather are greater than average.
- 8.6 Annual depreciation is calculated by identifying all the capital treatments needed to maintain assets or key components over their life cycles and then spreading the total cost evenly over the number of years in the life cycle. Calculated in this way, annual depreciation not only represents the annual consumption of economic benefits embodied in the asset but also provides a measure of what on average needs to be spent year on year on programmed maintenance to maintain the assets in a steady state.
- 8.7 The valuation as at 31 March 2016 is as follows:

Asset – Adopted Highway								£ Millions
	Carriageway	Footway	Street Lighting	Structures	Traffic Management	Street Furniture	Land	Total
<b>Gross Replacement Cost</b>								
B/F 1 April 2015	4,051.1	497.4	138.9	362.5	2.4	30.5	2,659.2	7,741.9
Additions								
- Adoptions	6.6	0.3	0.0	0.2	0.0	0.1	0.1	7.3
- Programmed Maintenance	11.0	2.5	2.3	2.3	0.3	0.6	0.0	19.0
- Improvements	0.0	0.0	4.2	0.0	0.3	0.0	0.0	4.5
Revaluation Adjustment	-150.8	-19.4	1.0	18.8	-0.7	10.2	31.7	-109.2
Disposals	-0.2	-0.1	-0.2	0.0	0.0	0.0	-0.2	-0.7
C/F 31 March 2016	3,917.7	480.7	146.2	383.8	2.3	41.4	2,690.8	7,662.8
<b>Accumulated Depreciation</b>								
B/F 1 April 2015	156.2	62.7	73.9	5.3	1.3	10.7	0.0	310.1
Revaluation Adjustment	-28.9	-6.1	2.0	1.5	-0.4	11.1	0.0	-20.8

Annual Depreciation Charge	15.0	11.5	4.7	1.7	0.1	1.5	0.0	34.6
Disposals	-0.2	-0.1	-0.2	0.0	0.0	0.0	0.0	-0.5
C/F 31 March 2016	142.1	68.0	80.4	8.5	1.0	23.3	0.0	323.4
<b>Depreciated Replacement Cost</b>								
B/F 1 April 2015	3,894.9	434.6	65.1	357.2	1.1	19.8	2,659.2	7,431.9
Additions	17.6	2.8	6.5	2.5	0.6	0.7	0.1	30.8
Revaluation Adjustment	-122.0	-13.3	-1.1	17.3	-0.3	-0.9	31.7	-88.6
Annual Depreciation Charge	-15.0	-11.5	-4.7	-1.7	-0.1	-1.5	0.0	-34.6
Disposals	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2
C/F 31 March 2016	3,775.5	412.6	65.8	375.3	1.3	18.1	2,690.8	7,339.3

## 9. Budgets

9.1 The budget for programmed capital maintenance is summarised as follows:

Funding Stream	Year Ending 31 March £'000s								
	2011	2012	2013	2014	2015	2016	2017	2018	2019*
<b>Department for Transport Funding</b>									
Local Transport Plan	10,762	11,212	10,679	10,132	9,780	11,886	10,896	10,567	9,564
Detruncked Highway	820	0	0	0	0	0	0	0	0
Incentive Fund	0	0	0	0	0	0	666	989	1,992
Section 31	0	847	0	1,836	1,007	0	0	0	0
Severe Weather	0	0	0	0	1,242	1,100	0	0	0
Potholes Fund	0	0	0	0	2,197	0	784	931	931
National Productivity and Investment Fund	0	0	0	0	0	0	0	1,830	0
<b>Sub-Total</b>	<b>11,582</b>	<b>12,059</b>	<b>10,679</b>	<b>11,968</b>	<b>14,226</b>	<b>12,986</b>	<b>12,346</b>	<b>14,317</b>	<b>12,487</b>
<b>Durham County Council Funding</b>									
Highway Maintenance	712	1,212	3,012	2,912	5,404	4,812	6,912	9,054	6,786
<b>Total</b>	<b>12,294</b>	<b>13,271</b>	<b>13,691</b>	<b>14,880</b>	<b>19,630</b>	<b>17,798</b>	<b>19,258</b>	<b>23,371</b>	<b>19,273</b>

\*Projected

9.2 The above budget rebased for construction inflation at 1 April 2015 prices is summarised as follows:

Year Ending 31 March £'000s									
	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Nominal</b>									
Budget	12,294	13,271	13,691	14,880	19,630	17,798	19,258	23,371	19,273
Inflation %	2.01%	3.49%	5.08%	1.33%	1.25%	-0.76%	-0.75%	4.45%	4.00%*
Index	228.18	236.14	248.13	251.44	254.59	252.66	250.77	261.93	272.41
<b>Real 1 April 2015 Prices</b>									
Budget	13,612	14,199	13,940	14,952	19,481	17,798	19,403	22,544	17,876

\*Forecast

9.3 It can be seen that the above outturn spend is significantly less than the annual depreciation charge.

9.4 The above budgets have purchased the following quantities of programmed capital maintenance:

Programmed Capital Maintenance – Quantities	Unit	Steady State Condition Benchmark	Year Ending 31 March							
			2012	2013	2014	2015	2016	2017	2018*	2019*
Carriageways	Km treated	7.0%	146 3.9%	122 3.2%	156 4.1%	168 4.4%	165 4.4%	178 4.7%	182 4.8%	185 4.9%
Kerbing	Km treated	2.5%	4.8 0.1%	4.8 0.1%	4.8 0.1%	4.8 0.1%	4.8 0.1%	4.8 0.1%	4.8 0.1%	4.8 0.1%
Drainage (Gullies)	Number	2.5%	140 0.13%	130 0.12%	130 0.12%	130 0.12%	130 0.12%	130 0.12%	130 0.12%	132 0.12%
Road Markings	Km treated	14.3%	284 12.7%	286 12.8%	287 12.8%	285 12.7%	285 12.7%	285 12.7%	285 12.7%	287 12.7%
Footways	Km treated	5.0%	88 2.3%	84 2.2%	88 2.3%	108 2.8%	95 2.5%	103 2.7%	106 2.8%	111 2.9%
Structures	No. of bridges treated	5%	39 4.1%	66 6.9%	50 5.2%	26 2.7%	26 2.7%	46 4.8%	47 4.9%	47 4.9%
Street lighting	No. columns replaced	2.5%	814 1.3%	836 1.3%	841 1.3%	802 1.2%	830 1.3%	1646 2.6%	1500 1.3%	1500 1.3%
	No. luminaires replaced	5.0%	8,146 9.8%	7,423 8.9%	8,137 9.8%	12,004 14.4%	12,000 14.4%	12,000 14.4%	12,000 14.4%	12,000 14.4%
	No. lit signs replaced	2.5%	100 1.8%	100 1.8%	100 1.8%	100 1.8%	105 1.8%	105 1.8%	105 1.8%	105 1.8%
Traffic Management		6.7%	3 2.2%	2 1.4%	1 0.7%	2 1.4%	2 1.4%	2 1.4%	2 1.4%	2 1.4%
Street Furniture	Items replaced	3.2%	2,300 2.4%	1,750 1.8%	1,550 1.6%	2,010 2.1%	1,680 1.7%	1700* 1.7%	1700 1.7%	1700 1.7%

\*Projected

9.5 It can be seen that the quantity of programmed capital maintenance purchased is less than the steady state condition benchmark and this explains why the condition of the highway asset has deteriorated over the period.



## 10. Investment Levels

10.1 The TAMP measures the current and projected condition of the asset for a given level of investment in programmed capital maintenance.

10.2 A range of investment levels (condition or budget led) are provided to allow stakeholders to select the most appropriate investment level to meet their objectives within available budgets.

10.3 We have modelled the following investment levels as stated in the policy:

Investment Level – Programmed Capital Maintenance	1 April 2015 Prices (£ millions)		
	One Off Capital Cost	Annual Average Capital Cost	Annual Average Capital Cost (Once Backlog Cleared)
Projected Budget	N/A	£17.8	N/A
Steady State Condition	N/A	£22.0	N/A
Eliminate highway maintenance backlog over 1 year then maintain at steady state condition	£191.7	N/A	£21.8
Eliminate highway maintenance backlog over 30 years then maintain at steady state condition	N/A	£32.8	£21.8

10.4 It is assumed that budgets will be uplifted for inflation to maintain purchasing power at 1 April 2015 prices.

10.5 The Projected Budget is an indicative annualised figure and the actual budgets may be greater or less depending upon Department for Transport and Council funding.

10.6 The above does not take account of any growth in the inventory from new developments which will increase the above values.

10.7 The projected condition and maintenance backlog for the Projected Budget service level is provided in Appendix 2.

10.8 The investment levels are calculated using nationally accredited lifecycle planning models which are based on current condition projected forward for average annual deterioration over a period of 30 years. In the short term the annual movements in the maintenance backlog are affected by:

- Inflation;
- Annual variations in deterioration due to the severity of the weather;
- Cycle for collecting condition data which is up to 6 years; and
- The accuracy of the nationally accredited deterioration model when applied to County Durham.

10.9 If investment is less than the steady state condition investment level then in the medium term:

- The condition of the highway asset will deteriorate;
- The maintenance backlog will increase;
- The number of defects will increase and put pressure on the reactive and routine revenue maintenance budgets;
- The number of public liability claims will increase and put pressure on the insurance budget; and
- Public satisfaction will decrease.

10.10 If investment is more than the steady state condition investment level then in the medium term:

- The condition of the highway asset will improve;
- The maintenance backlog will reduce;
- The number of defects will reduce;
- The number of public liability claims will reduce; and
- Public satisfaction will improve.

## **11. Feedback**

11.1 The Council welcomes feedback on any aspect of this TAMP. If you would like to provide feedback please provide via Customer Services using the following contact details:

- Website: [www.durham.gov.uk](http://www.durham.gov.uk)
- Email: [help@durham.gov.uk](mailto:help@durham.gov.uk)
- Telephone number: 03000 261000

## Appendix 1 - Inventory Summary

Adopted Highway	Unit											31 March	
		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
<b>Carriageways</b>													
A Roads	Km	412	412	412	412	416	416	416	416	416	415	415	
B Roads	Km	408	408	406	406	407	407	407	407	406	406	406	
C Roads	Km	697	696	695	699	698	698	697	697	697	697	697	
Unclassified	Km	2,175	2,181	2,191	2,195	2,200	2,212	2,224	2,236	2,255	2,262	2,276	
Sub-Total	Km	3,692	3,697	3,704	3,712	3,721	3,733	3,744	3,756	3,774	3,780	3,794	
<b>Kerbing</b>	Km	4,424	4,431	4,441	4,449	4,462	4,478	4,493	4,539	4,573	4,588	4,605	
<b>Drainage</b>													
Gullies	Number	104,099	104,280	104,547	104,741	105,034	105,428	105,805	107,488	108,340	110,054	110,462	
Ditches	Km	262	262	262	262	262	262	262	262	262	262	262	
Pipework	Km	355	355	355	356	358	359	360	365	368	376	377	
<b>Road Markings</b>													
Lines	Km	2,229	2,229	2,227	2,232	2,237	2,241	2,240	2,243	2,242	2,242	2,250	
Other items	Number	19,895	19,915	19,935	19,973	20,035	20,085	20,129	22,167	22,271	22,271	22,331	
<b>Footways</b>	Km	3,375	3,393	3,405	3,487	3,543	3,600	3,656	3,783	3,837	3,828	3,886	
<b>Structures</b>	Number	932	934	937	951	964	964	966	966	966	998	998	
<b>Street Lighting</b>	Number	84,645	85,277	85,909	86,541	87,173	87,803	88,491	89,008	89,085	88,675	88,504	
<b>Traffic Management</b>	Number	105	110	118	121	123	127	129	133	136	138	139	
<b>Street Furniture</b>													
Safety fencing	Km	53	53	53	53	53	53	53	53	53	53	53	
Other	Number	86,069	87,167	88,265	89,363	90,462	91,560	92,658	93,757	95,320	95,385	94,320	
<b>Land</b>	M <sup>2</sup>	29,841,791	29,904,170	29,963,830	30,159,100	30,326,800	30,499,600	30,891,150	31,326,522	31,353,145	30,939,856	31,019,148	

## Appendix 2 - Projected Condition and Maintenance Backlog

Asset	Description	Condition – Projected Budget															
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
A - Roads	% where maintenance should be considered	4.1	3.6	3.8	4.2	4.6	4.9	5.1	5.3	5.4	5.5	5.5	5.6	5.5	5.5	5.5	5.4
B – Roads		5.3	4.8	4.9	5.3	5.7	6.0	6.4	6.7	6.9	7.0	7.1	7.2	7.2	7.2	7.1	7.1
C – Roads		3.6	3.2	3.3	3.6	3.9	4.3	4.6	4.9	5.0	5.2	5.3	5.3	5.4	5.4	5.4	5.3
Unclassified Roads	% where maintenance should be considered	20.0	18.0	17.1	17.0	17.3	17.9	18.7	19.7	20.7	21.7	22.8	23.8	24.8	25.7	26.6	27.5
Footways	% functionally/ structurally impaired	24.1	24.1	24.5	25.0	25.6	26.3	27.1	27.9	28.7	29.5	30.3	31.0	31.8	32.4	33.1	33.7
Kerbing	% where replacement should be considered	10.0	10.4	10.7	11.0	11.4	11.7	12.1	12.4	12.7	13.1	13.4	13.7	14.1	14.4	14.7	15.1
Drainage	% where replacement should be considered	10.0	10.8	11.5	12.3	13.0	13.7	14.4	15.2	15.9	16.6	17.3	17.9	18.6	19.3	20.0	20.6
Road Markings	% where replacement should be considered	55.0	59.8	63.9	67.4	70.4	73.0	75.2	77.1	78.8	80.2	81.4	82.4	83.3	84.0	84.7	85.2
Structures	Bridge Condition Index – Principal roads	83.8	84.2	82.8	83.9	84.9	84.7	84	84.1	83.6	82.9	82.4	81.5	81.5	81.3	80.8	80.4
	Bridge Condition Index – Non-Principal Roads	83.7	84	83.5	83.8	84.0	83.7	83.1	83.7	83.4	82.8	82.3	82.5	82.1	80.7	80.2	79.7
Street Lighting	% columns > 40 years	14.9	11.3	12.0	13.0	14.0	15.3	16.7	18.1	19.7	21.4	23.1	24.8	26.5	28.3	30.0	31.8
	% lanterns > 20 years	28.6	22.5	19.0	15.3	11.3	7.0	11.1	14.9	18.6	22.1	25.4	28.5	31.5	34.3	37.0	39.6
	Lit signs	17.9	21.7	23.3	24.9	26.5	28.0	29.5	31.0	32.4	33.8	35.1	36.4	37.7	39.0	40.2	41.4
Traffic Management	% traffic signals > 15 years	16.0	20.1	24.2	28.6	33.0	37.4	41.7	45.8	49.7	53.4	56.7	59.8	62.6	65.1	67.3	69.3
Street Furniture	% where replacement should be considered	8.0	9.8	11.6	13.3	14.9	16.4	17.9	19.3	20.6	21.9	23.1	24.3	25.4	26.5	27.5	28.5
Maintenance Backlog (1 April 2015 prices)	(£ millions)	191.7	183.6	184.0	187.5	192.5	198.0	206.3	215.0	223.5	231.8	240.0	247.8	255.6	262.6	269.6	276.2
Projected Budget (1 April 2015 prices)	(£ millions)	N/A	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8

## Appendix 2 - Projected Condition and Maintenance Backlog (Continued)

Asset	Description	Condition – Projected Budget														
		2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
A - Roads	% where maintenance should be considered	5.4	5.3	5.2	5.2	5.1	5.0	5.0	4.9	4.8	4.8	4.7	4.6	4.6	4.5	4.4
B – Roads		7.0	7.0	6.9	6.8	6.7	6.6	6.5	6.4	6.3	6.2	6.1	6.0	5.9	5.9	5.8
C – Roads		5.3	5.3	5.2	5.1	5.1	5.0	4.9	4.9	4.8	4.7	4.7	4.6	4.5	4.4	4.4
Unclassified Roads	% where maintenance should be considered	28.3	29.0	29.7	30.4	31.0	31.5	32.1	32.5	33.0	33.4	33.8	34.2	34.5	34.8	35.1
Footways	% functionally/ structurally impaired	34.2	34.7	35.2	35.6	36.0	36.4	36.7	37.0	37.2	37.5	37.7	37.8	38.0	38.1	38.2
Kerbing	% where replacement should be considered	15.4	15.7	16.0	16.3	16.7	17.0	17.3	17.6	17.9	18.2	18.5	18.8	19.1	19.4	19.7
Drainage	% where replacement should be considered	21.3	21.9	22.6	23.2	23.8	24.4	25.0	25.7	26.3	26.8	27.4	28.0	28.6	29.2	29.7
Road Markings	% where replacement should be considered	85.7	86.1	86.4	86.7	87.0	87.2	87.4	87.6	87.7	87.8	87.9	88.0	88.1	88.2	88.2
Structures	Bridge Condition Index – Principal roads	79.6	78.8	78.7	79.5	77.9	77.6	75.7	76.4	78	76.9	75.9	75.2	75.5	74.1	72.5
	Bridge Condition Index – Non-Principal Roads	78.6	78.2	78.4	78.1	76.4	76	74.2	72.8	74.2	72.8	72.2	71.7	72.1	70.9	69.3
Street Lighting	% columns > 40 years	33.5	35.1	36.8	38.4	39.9	41.5	42.9	44.3	45.7	47.0	48.2	49.4	50.5	51.6	52.6
	% lanterns > 20 years	42.0	44.3	46.5	48.6	50.6	52.5	54.2	55.9	57.5	59.1	60.5	61.9	63.2	64.5	65.7
	Lit signs	42.5	43.6	44.7	45.8	46.9	47.9	48.9	49.8	50.8	51.7	52.6	53.5	54.3	55.2	56.0
Traffic Management	% traffic signals > 15 years	71.1	72.7	74.0	75.2	76.2	77.1	77.9	78.6	79.2	79.7	80.1	80.4	80.7	81.0	81.2
Street Furniture	% where replacement should be considered	29.5	30.4	31.2	32.1	32.9	33.6	34.4	35.1	35.7	36.4	37.0	37.6	38.2	38.7	39.2
Maintenance Backlog (1 April 2015 prices)	(£ millions)	282.1	288.0	293.8	299.4	304.0	308.9	312.7	317.0	321.8	325.4	328.8	332.0	335.6	338.2	330.6
Projected Budget (1 April 2015 prices)	(£ millions)	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8

### Appendix 3 - Condition Benchmarking

#### Measured Road Condition Weighted by Road Length

Road Class	2013			2014			2015			2016		
	Network Length (Km)	Length where maintenance should be considered (Km)	Percentage where maintenance should be considered %	Network Length (Km)	Length where maintenance should be considered (Km)	Percentage where maintenance should be considered %	Network Length (Km)	Length where maintenance should be considered (Km)	Percentage where maintenance should be considered %	Network Length (Km)	Length where maintenance should be considered (Km)	Percentage where maintenance should be considered %
A Roads	416.0	22.9	5.5	415.8	19.1	4.6	415.3	20.4	4.9	415.3	17.0	4.1
B Roads	406.6	37.8	9.3	406.3	32.1	7.9	406.4	30.5	7.5	406.4	21.5	5.3
C Roads	697.7	64.9	9.3	696.8	56.4	8.1	696.7	34.8	5.0	696.7	25.1	3.6
U Roads	2,224.8	467.2	21.0	2,240.4	492.9	22.0	2,252.1	427.9	19.0	2,276.1	455.2	20.0
All Roads	3,745.1	592.8	15.8	3,759.3	600.5	16.0	3,770.5	513.6	13.6	3,794.5	518.8	13.7

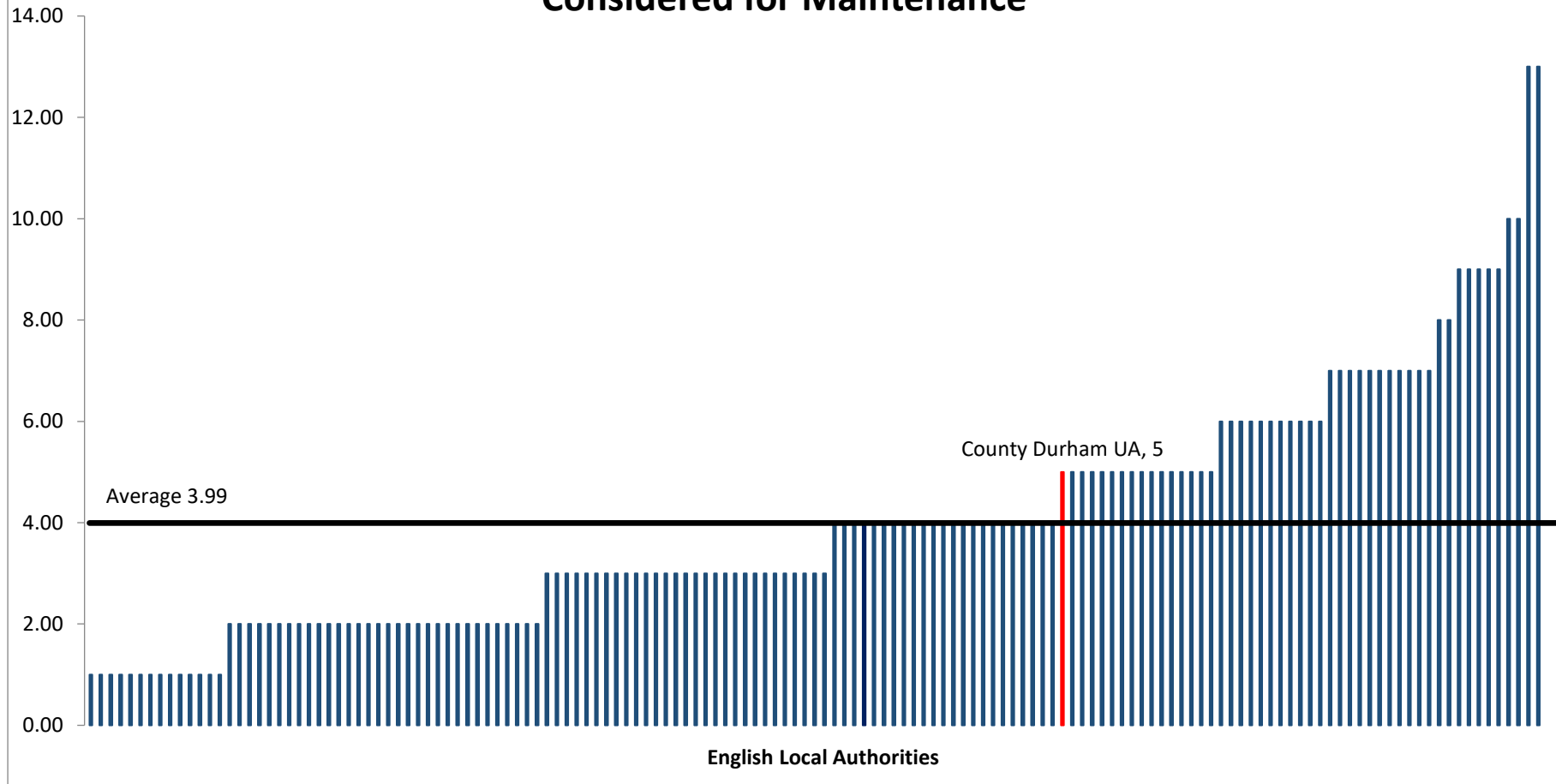
Department for Transport Statistics

Principal and non-principal classified roads where maintenance should be considered (RDC0120)

	Principal (LA maintained 'A' roads)						
	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
<b>National</b>							
DCC %	4	..	5	6	6	5	5
Average %	5.46	5.81	6.08	5.95	6.16	6.10	3.99
Mode %	4.00	4.00	4.00	4.00	3.00	2.00	2.00
Minimum %	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Maximum %	16.00	17.00	18.00	21.00	32.00	24.00	13.00
Number of Returns	149	150	132	146	143	149	147
DCC Rank (Low to High)	40	N/A	52	78	78	76	99
<b>North East</b>							
DCC %	4	..	5	6	6	5	5
Average %	2.67	2.55	3.73	4.00	3.33	3.33	3.75
Mode %	2.00	3.00	4.00	3.00	2.00	2.00	2
Minimum %	1.00	1.00	1.00	2.00	2.00	2.00	2
Maximum %	5.00	5.00	6.00	6.00	6.00	5.00	7
Number of Returns	12	11	11	12	12	12	12
DCC Rank (Low to High)	9	N/A	9	11	12	9	9

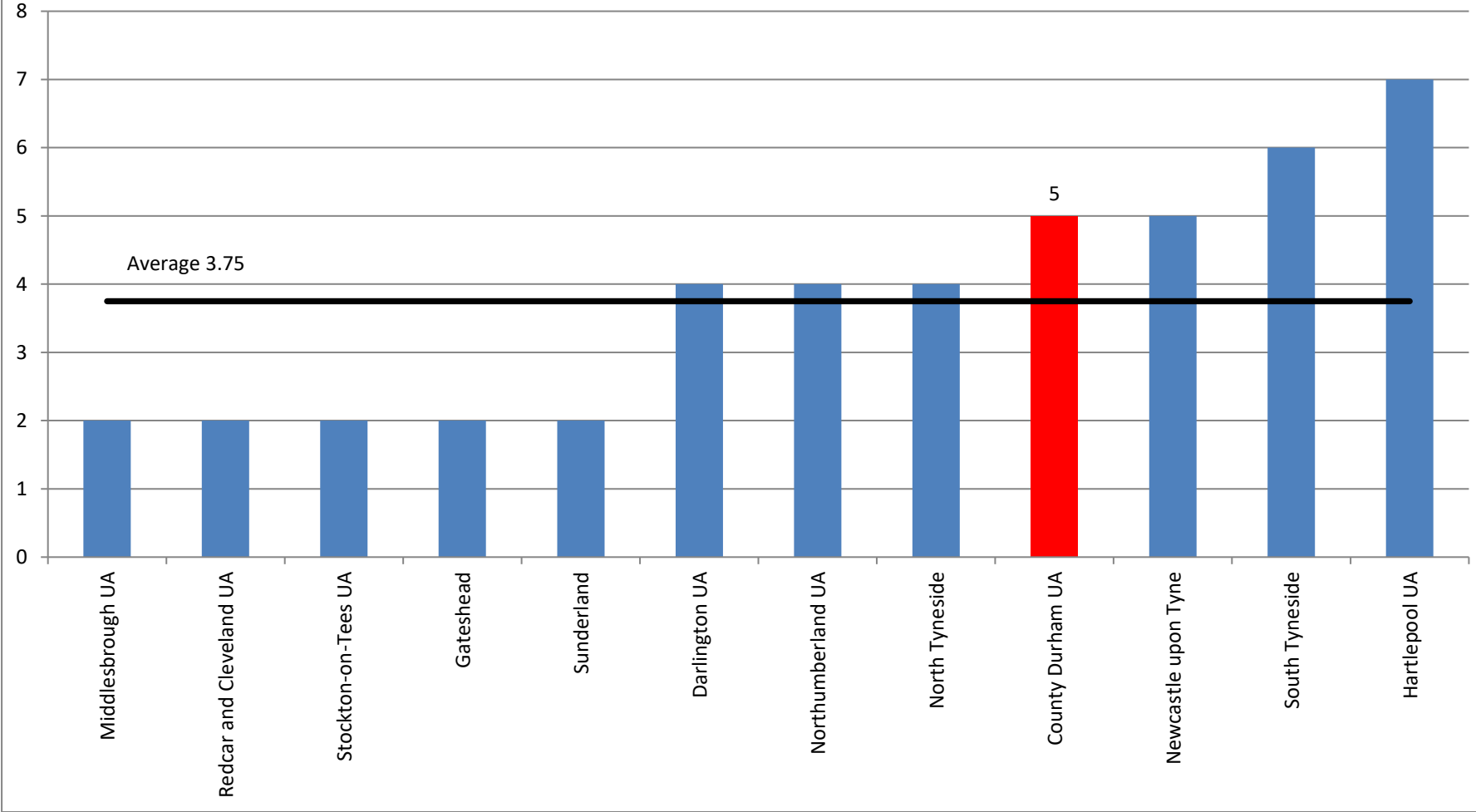
	Non-principal (LA maintained 'B' and 'C' roads)						
	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
<b>National</b>							
DCC %	10	..	9	10	9	8	6
Average %	7.78	8.17	8.44	8.34	8.34	7.81	6.43
Mode %	6.00	7.00	7.00	10.00	5.00	3.00	4
Minimum %	2.00	2.00	1.00	2.00	2.00	1.00	1
Maximum %	21.00	25.00	26.00	22.00	26.00	27.00	21
Number of Returns	148	149	131	144	143	149	146
DCC Rank (Low to High)	112	N/A	73	95	83	86	70
<b>North East</b>							
DCC %	10	..	9	10	9	8	6
Average %	5.67	5.27	6.55	7.17	6.25	6.25	5.50
Mode %	2.00	2.00	11.00	3.00	9.00	8.00	6
Minimum %	2.00	2.00	2.00	3.00	2.00	2.00	1
Maximum %	15.00	13.00	11.00	13.00	12.00	14.00	11
Number of Returns	12	11	11	12	12	12	12
DCC Rank (Low to High)	10	N/A	8	9	8	8	7

## RDC0120 2014/15 English Local Authority Principal A Roads % Considered for Maintenance



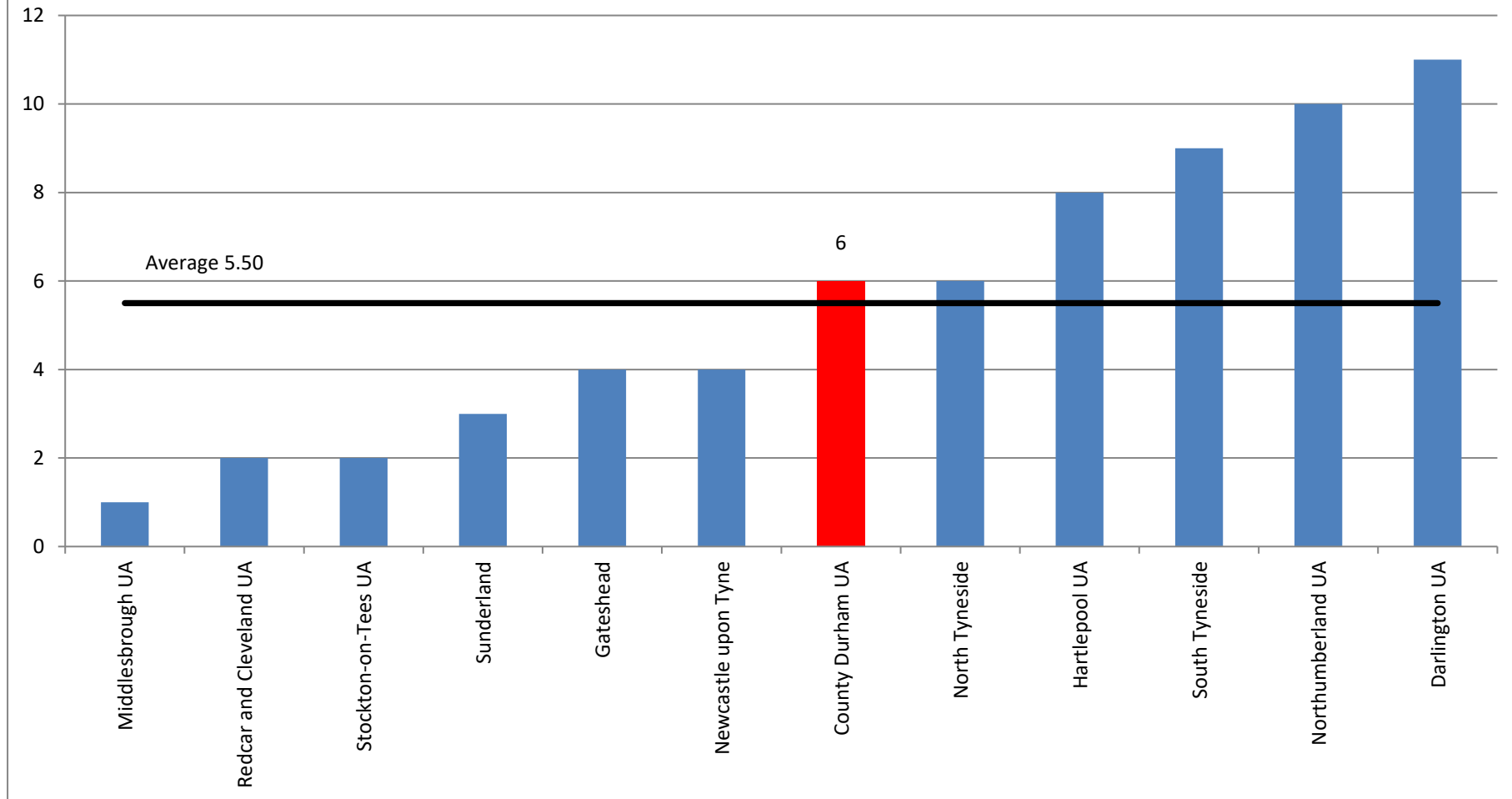


## RDC0120 2014/15 North East Local Authority Principal A Roads % Considered for Maintenance





## RDC0120 2014/15 North East Authority B & C Roads % Considered for Maintenance

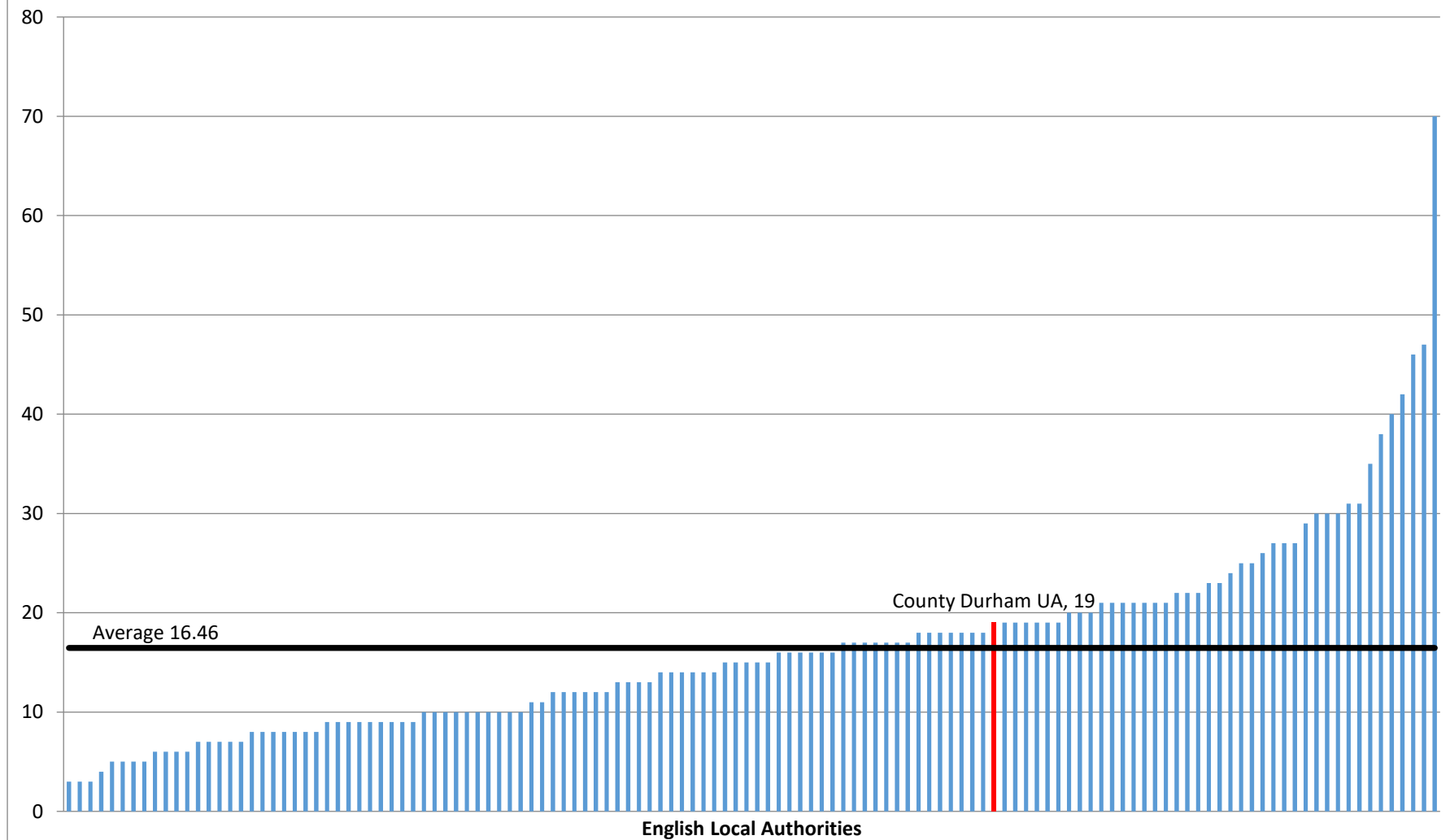


**Department for Transport Statistics**

**Percentage of unclassified roads where maintenance should be considered (RDC0130)**

	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
<b>England</b>								
DCC %	18	16	17	17	20	21	22	19.00
Average %	13.89	13.99	14.05	14.74	15.49	15.81	17.71	16.46
Mode %	9.00	9.00	6.00	11.00	12.00	7.00	8.00	10.00
Minimum %	2.00	1.00	1.00	3.00	2.00	3.00	3.00	3.00
Maximum %	57.00	56.00	42.00	43.00	41.00	45.00	74.00	70.00
Number of Returns	148	122	123	115	113	112	130	128
DCC Rank (Low to High)	111	81	85	74	86	86	96	87
<b>North East</b>								
DCC %	18	16	17	17	20	21	22	19.00
Average %	8.58	9.67	8.64	8.33	9.91	9.91	11.18	11.42
Mode %	9.00	9.00	8.00	6.00	7.00	7.00	10.00	10.00
Minimum %	4.00	5.00	3.00	4.00	6.00	7.00	4.00	8.00
Maximum %	18.00	16.00	17.00	17.00	20.00	21.00	22.00	19.00
Number of Returns	12	12	11	12	11	11	11	12
DCC Rank (Low to High)	12	12	11	12	11	11	11	12

# RDC0130 2014/15 Unclassified Roads % Considered for Maintenance



## RDC0130 2014/15 North East Local Authority Unclassified Road % Considered for Maintenance

