

Highways Maintenance



**Special Environment and Sustainable
Communities Overview and Scrutiny Meeting
21 March 2019**

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Introduction

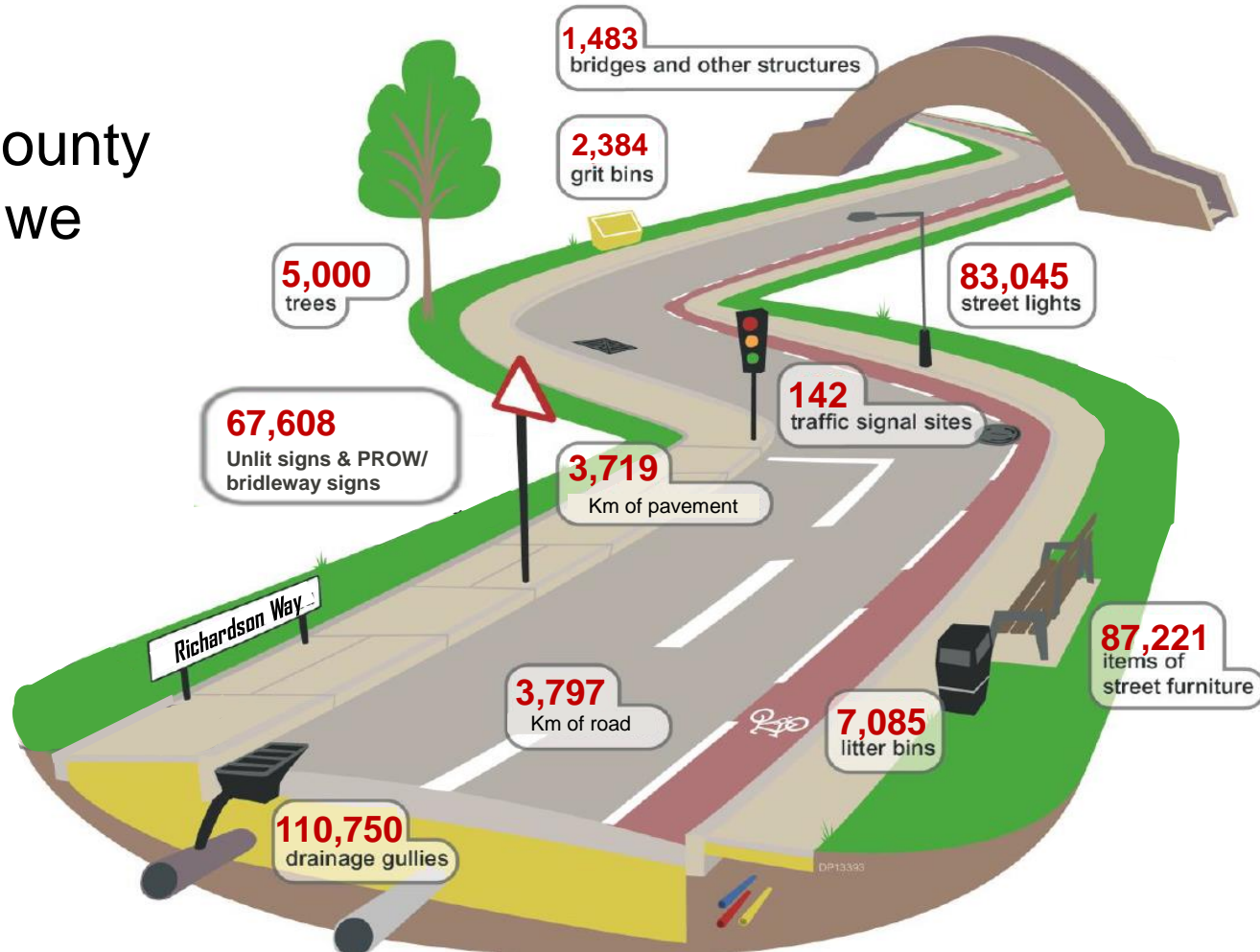
- The Highway Maintenance Plan sets out the Council's inspection, condition survey, reactive and routine maintenance service levels
- The Transport Asset Management Plan (TAMP) sets out the long term plan for managing the highway asset by applying programmed maintenance

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Highway Inventory

Across County Durham, we have...



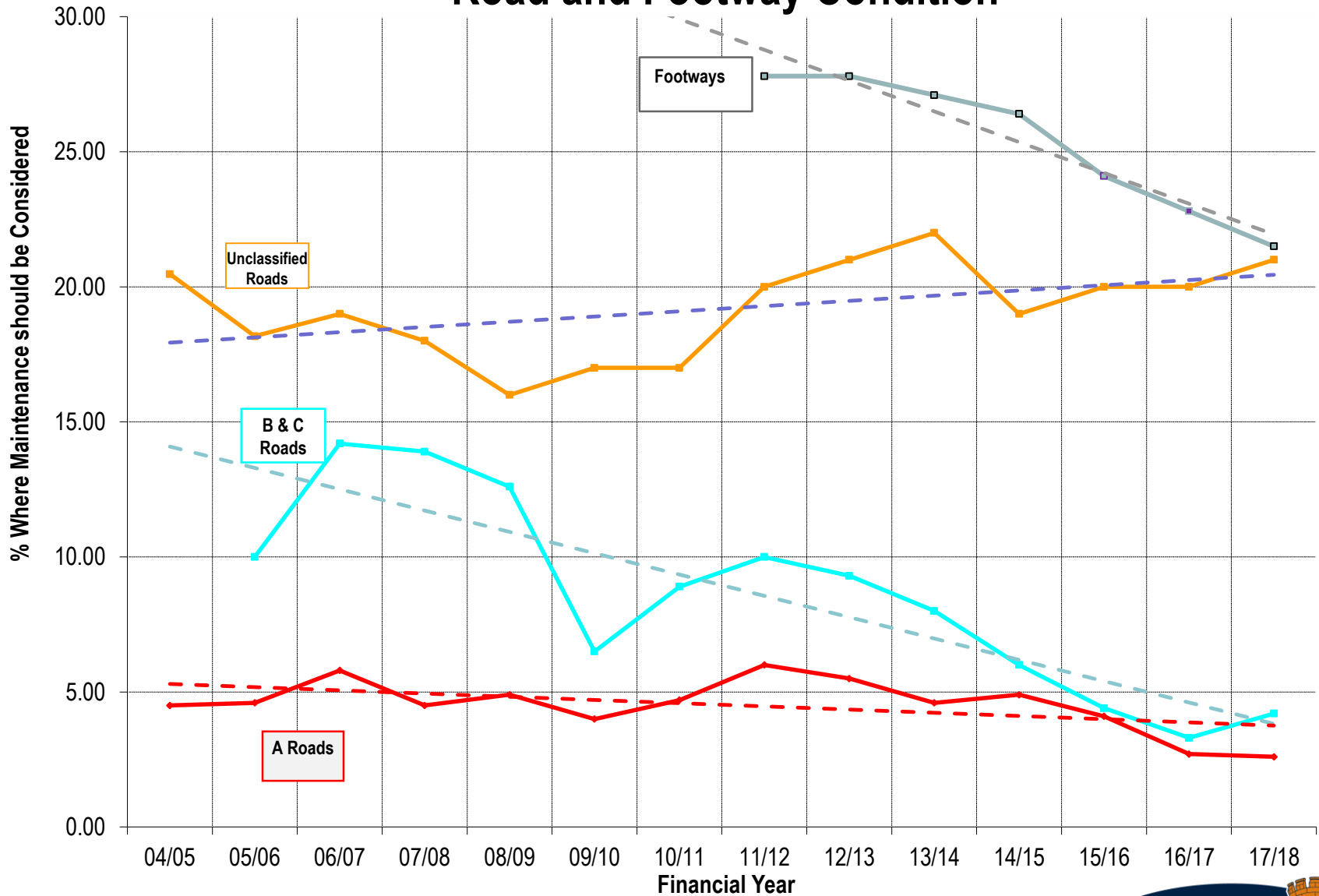
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Major Groups - Asset Condition (1)

Asset	Description	Performance					
		2015	2016	2017	2018	Good Condition Target	Fair Condition Target
Carriageway							
A – Roads	% where maintenance should be considered	4.9%	4.1%	2.6%	2.6%	0.0%	4.0%
B – Roads		7.5%	5.3%	4.7%	4.7%	0.0%	4.0%
C – Roads		5.0%	3.6%	3.7%	3.7%	0.0%	4.0%
Unclassified Roads	% where maintenance should be considered	19.0%	20.0%	20.0%	21.0%	0.0%	8.0%
All Roads	% where maintenance should be considered	13.6%	13.7%	13.5%	14.1%	0.0%	6.4%
Footways	% structurally unsound	26.4%	24.1%	22.8%	21.5%	0.0%	5.0%

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Road and Footway Condition



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Major Groups - Asset Condition (2)

Asset	Description	Performance					
		2015	2016	2017	2018	Good Condition Target	Fair Condition Target
Street Lighting	% columns > 40 years	17.7%	14.9%	15.3%	12.8%	0.0%	5.0%
	% lanterns > 20 years	45.9%	25.8%	18.3%	15.8%	0.0%	5.0%
	% lit signs where replacement should be considered	20.0%	17.9%	17.1%	17.1%	0.0%	5.0%

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Major Groups - Asset Condition (3)

Asset	Description	Performance					
		2015	2016	2017	2018	Good Condition Target	Fair Condition Target
Structures	Bridge Condition Index – Principal roads	88.3	83.8	80.0	80.7	100.0	95.0
	Bridge Condition Index – Non-Principal Roads	86.4	83.7	81.0	79.9	100.0	95.0
	Other (using form of Bridge Condition Index)	66.0	66.0	66.0	66.0	100.0	85.0

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Structures – Bridge Condition Index (BCI)

BCI Range	Description
<u>$90 \leq x \leq 100$</u>	Bridge stock is in a very good condition. Very few bridges may be in a moderate to severe condition.
<u>$80 \leq x < 90$</u>	Bridge stock is in a good condition. Some bridges may be in a severe condition. Potential for rapid decrease in condition if sufficient maintenance funding is not provided. Minor to moderate backlog of maintenance work.
<u>$65 \leq x < 80$</u>	Bridge stock is in a fair condition. A number of bridges may be in a severe condition. Maintenance work historically underfunded and there is a moderate to large backlog of maintenance work. Essential work dominates spending.
<u>$40 \leq x < 65$</u>	Bridge stock is in a poor condition. Many bridges may be in a severe condition. Maintenance work historically significantly underfunded and there is a large to very large backlog of maintenance work. A significant number of structures likely to be closed have temporary measures in place or other risk mitigation measures. Essential work dominates spending.
<u>$0 \leq x < 40$</u>	Bridge stock is in very poor condition. Many bridges may be unserviceable or close to it. Historical maintenance work grossly underfunded and a very large maintenance backlog. Only essential maintenance work performed. Many structures likely to be closed have temporary measures in place or other risk mitigation measures. All spend likely to be on essential maintenance.

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Highway Inspections

Inspection Type	Description	Assets/Routes
Safety inspection	Safety inspections are designed to identify all defects that are likely to create danger or serious inconvenience to users of the network or the wider community	Carriageways, Footways and Cycle Routes
Service inspection	Service inspections are detailed inspections tailored to the requirements of particular highway assets to ensure that they meet requirements for serviceability	Street Lighting, Highway Trees, Traffic Signals

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Condition Surveys

Asset	Survey	Frequency
A - Roads	Surface Condition Assessment for the National Network of Roads (SCANNER)	100% surveyed in one direction only annually
B - Roads		100% surveyed in one direction only annually
C – Roads		100% surveyed in one direction only annually
Unclassified Roads (Cat 3a, 3b, 4a bus routes only)		One direction surveyed annually
Unclassified Roads	Coarse Visual Inspection (CVI)	Minimum 25% annually
Footway Hierarchy 1, 1a, 2, 3, 4	Footway Network Survey (FNS)	Minimum 25% annually
Carriageway Hierarchy 2 & 3a	Skid Resistance – using Sideway-force Coefficient Routine Investigation Machine (SCRIM)	Annually
Carriageway Hierarchy 3b, 4a and 4b		Not routinely undertaken
All locations	Vehicle Restraint Systems	On a 2 year cycle if more than 10 years old or a 5 year cycle if less than 10 years old
All highway structures with a span > 1.5m	Structures – General Inspections	Every 2 years
All principal road network and other significant structures	Structures – Principal Inspections	Frequency varies between 6 and 12 years depending upon risk assessment
Any structure identified through the general inspection or from reports	Structures – Special Inspections	As required
All structures on rivers subject to fast changing environment or deep water	Underwater Inspections	Every 2 years or following severe flood conditions

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Maintenance Backlog

Maintenance Backlog	31 March £ Millions				
	2014	2015	2016	2017	2018
Carriageways	66.8	59.2	57.3	52.8	52.7
Kerbing	20.2	18.4	18.5	18.5	18.5
Drainage	5.8	5.6	5.6	5.6	5.6
Road Markings	0.5	0.9	0.9	0.9	0.9
Footways	47.0	47.7	47.5	44.8	40.5
Structures	9.9	22.4	36.0	42.0	40.6
Street Lighting	23.3	23.5	22.1	19.2	17.1
Traffic Management	1.1	1.0	1.0	1.0	1.0
Street Furniture	2.4	2.4	2.8	2.8	2.8
Total	177.0	181.1	191.7	187.6	179.7

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Performance

- DfT Incentive Fund:
 - DCC one of two Councils nationally to achieve the maximum Band 3 efficiency rating in 2016
 - Maximum Band 3 rating maintained in 2017, 2018 and 2019
- National Highways and Transportation (NHT) Public Satisfaction Survey
 - Above National and North East average for 5 out of 6 indicators

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Plastic Roads

- Durham County Council working in partnership with:
 - Rainton Construction
 - MacRebur
- Plastipave “plastic road” asphalt

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Trials

Scheme	Surfacing Treatment	Surfacing Metres 2	Tonnes of Plastic Waste	Equivalent Plastic Bags (Millions)	Binder Plastic Content %
A689 Sedgefield	Hot Rolled Asphalt	12,744	6.5	1.6	6%
Murton	AC 10 DSC	3,413	1.1	0.3	6%
A68 Toft Hill	Hot Rolled Asphalt	6,320	3.7	0.9	6%

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Video

- A689 Trial:
<https://www.youtube.com/watch?v=xsrB9T88OKQ>
- A68 Trial:
https://youtu.be/Bag5Vt_KOi4

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Any Questions?

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