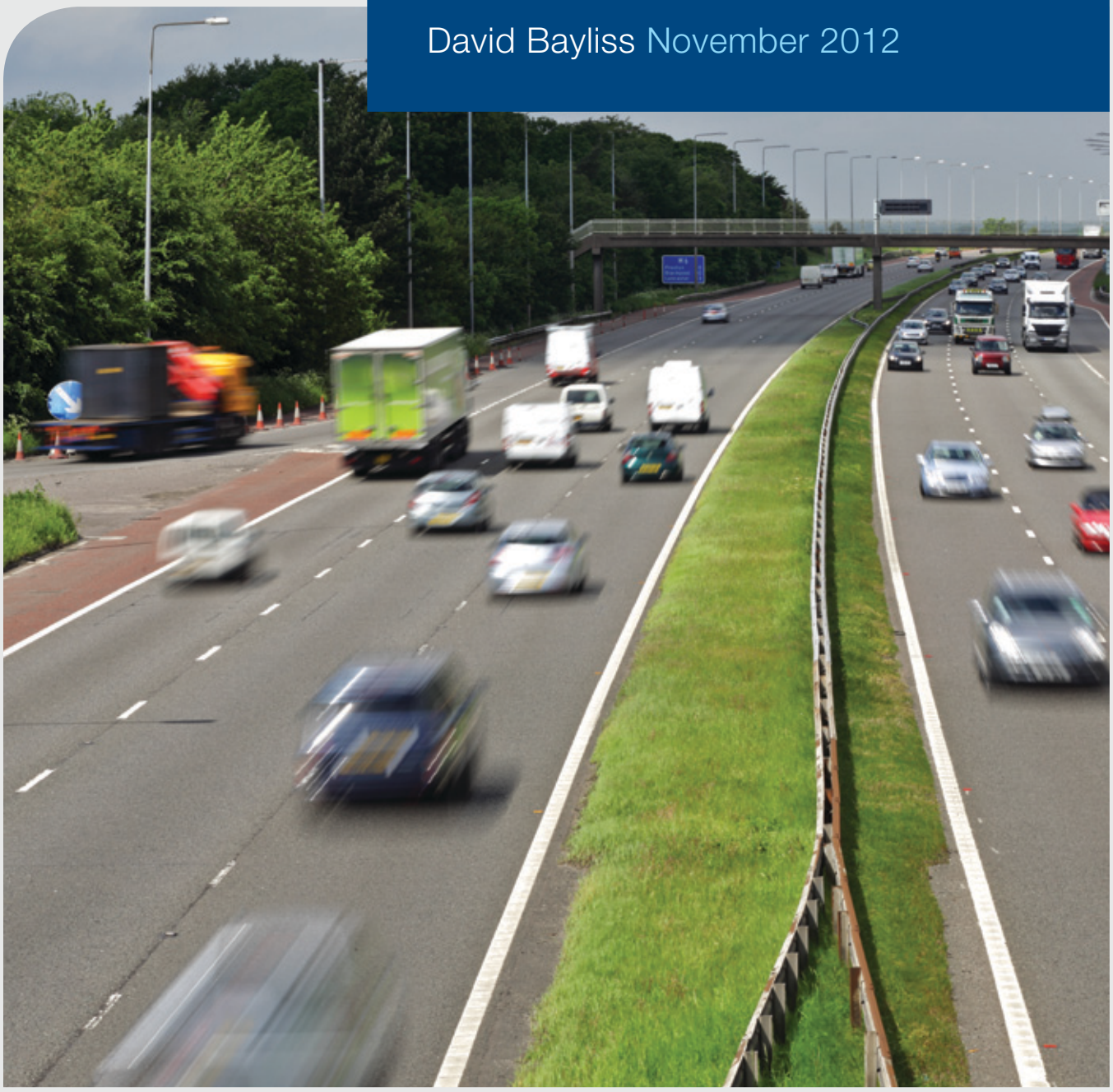
RAC Foundation

Local Road Maintenance

Recent trends and prospects

David Bayliss November 2012



The Royal Automobile Club Foundation for Motoring Ltd is a charity which explores the economic, mobility, safety and environmental issues relating to roads and responsible road users. Independent and authoritative research, carried out for the public benefit, is central to the Foundation's activities.

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Contents

1. Introduction

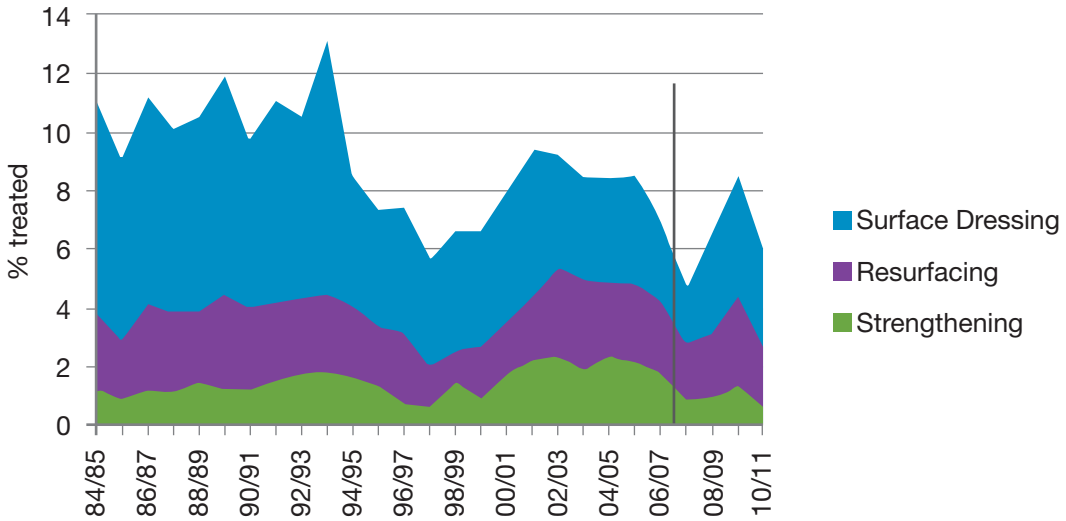
This document attempts to draw together a picture of recent trends in maintenance activity and spending on local authority roads in England and Wales, and how this might develop in future. The winters of 2009/10 and 2010/11, with their rashes of potholes, highlighted the poor condition of many sections of roads.

In its 2012 survey[1] the Asphalt Industry Alliance painted a picture of falling road maintenance budgets, a carriageway maintenance backlog that would take about ten years to eliminate at current spending levels, and 1.7 million potholes that had to be filled in England and Wales at a cost of £90 million. The 'Pothole Review',[2] which was carried out in recognition of this problem, makes a number of recommendations on better practice in highway maintenance; however, it does not address how we might identify the optimal level of spending in future years given the present state of our road system.

1 Asphalt Industry Alliance (2012)
2 Department for Transport (2012c)

2. Road Maintenance Activity

Figure 1: English and Welsh local authority main road maintenance activity, 1984/6 to 2005/6 and English local authority main roads, 2006/7 to 2010/11

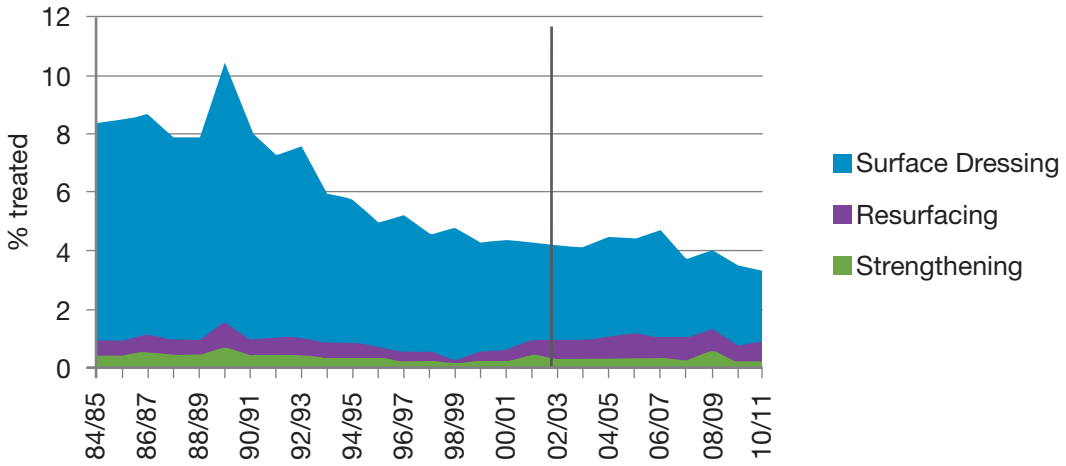


Source: Department for Transport (2012e)

It appears that over the last 20 years or so road maintenance activity has varied significantly from year to year, but has shown an overall reduction as illustrated in Figures 1 and 2.

The percentage of local authority main roads in England and Wales that were treated fell from 11% in 1984/5 to 8.5% in 2005/6 (Figure 1), while over the same period the percentage of minor roads treated fell from 8.3% to 4.3% (Figure 2). The level of activity fell significantly in the late 1990s, and while it recovered thereafter for main roads, it did not increase for minor roads until 2004/5. Between 2006/7 and 2010/11, the percentage of main roads being treated fell from 7% to 6% and minor roads from 4.6% to 3.3%.

Figure 2: English and Welsh local authority minor road maintenance activity, 1984/6 to 2005/6 and English local authority minor roads, 2006/7 to 2010/11



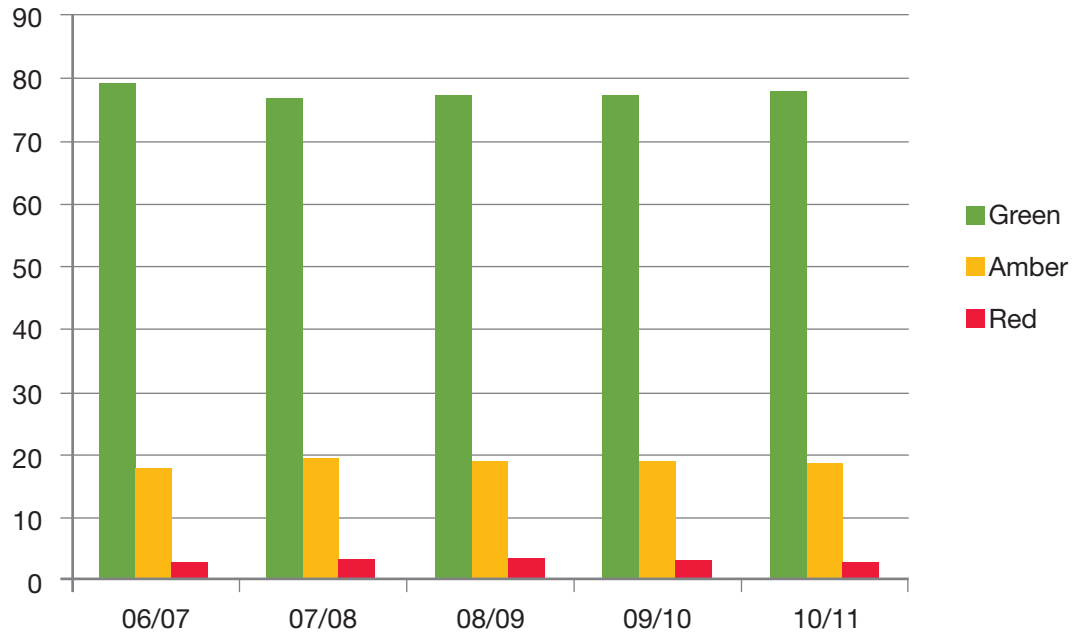
Source: Department for Transport (2012e)

3. Road Conditions

Changes in the way road conditions are measured (largely through the introduction of new technologies) mean that it is very difficult to track long-term road condition trends.

Figures 3 and 4 show how road conditions have changed since 2006/7 when the present assessment methods were introduced. It is clear from these that a higher proportion of the surfaces of B and C roads are in moderate or poor condition than the surfaces of A roads. Over this four-year period the percentage of 'non-green' A roads fell from 20.7% to 22.4%, while for B and C roads they increased from 33.9% to 35.2%, and most of these measurements would have been prior to the severe winter episode of 2009/10.

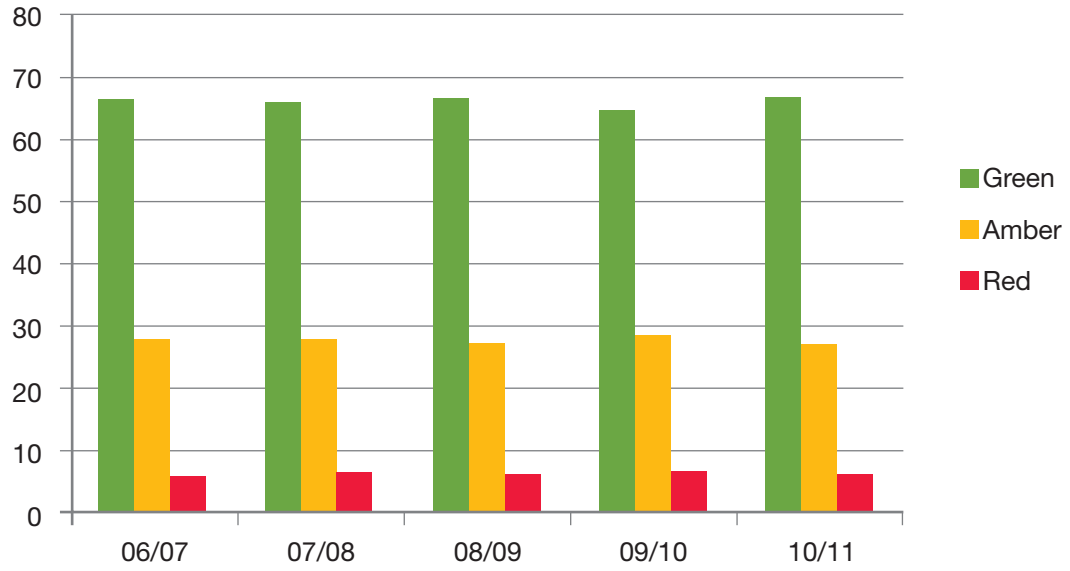
Figure 3: Changes in English A road condition indices, 2006/7 to 2010/11



Source: Department for Transport (2011e)

In Figures 3 and 4 the Road Condition Indicator (RCI) is an indication of the condition of the road surface. These are grouped into 'green' or 'good' (i.e. no further investigation or work is needed to bring them up to standard), 'amber' or 'moderate' (i.e. they may need work soon), and 'red' or 'poor' (i.e. further investigation is required to ascertain if work is needed immediately).

Figure 4: Changes in English B and C road condition indices, 2006/7 to 2010/11



Source: Department for Transport (2011d)

Between 2005/7 and 2008/10 the percentage of local authority A road lengths below the threshold where skidding resistance merited examination increased from 24% to 26% (mainly on London Borough and county roads).[3] Comparable information is not available for Wales.

Again, changes in the way conditions are measured makes long-term trends difficult to establish, but between 2007/8 and 2009/10 the percentage of A roads in need of further investigation increased from 4% to 5%, while the percentage of B and C roads in need of further investigation increased from 7% to 8%.[4, 5]

3 Department for Transport (2011e)
4 Welsh Assembly Government (2009), Table 1.4
5 Welsh Assembly Government (2011), Table 1.5

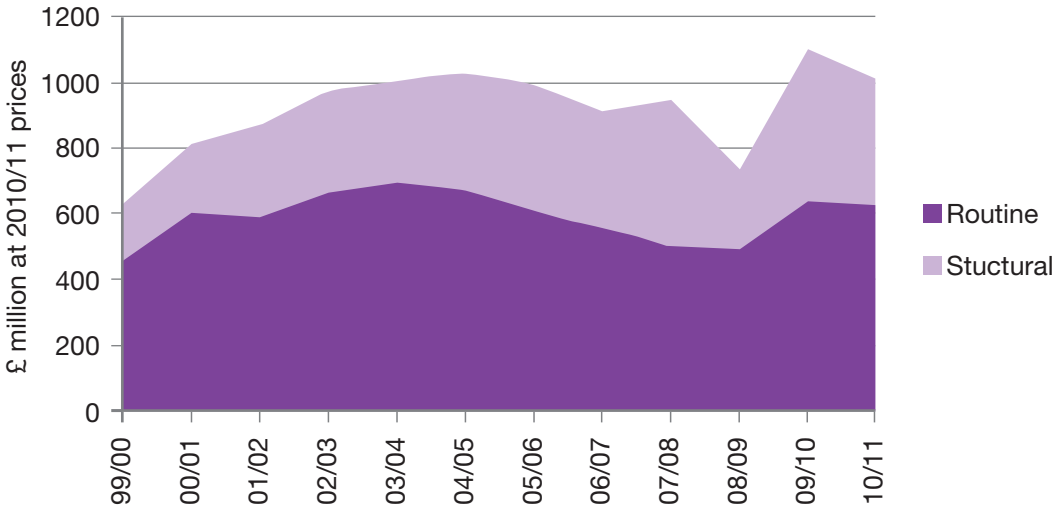
4. Road Maintenance Expenditure

Local authority road maintenance expenditure in England has grown overall by 20% (in real terms) between 1999/2000 and 2008/9, as illustrated in Figures 5 and 6. However, the length of English local authority roads has grown over many years as a result of the construction of access roads to new developments and the de-trunking of main roads.

Between 1999 and 2011, the length of local authority main roads in England increased by 13% (34,360 km), and in Wales by 0.6% (190 km).[6] Since 2000 the increase in England has been 2.7%, from 286,430 km[7] to 294,044 km (1.5%).[8] The rate of spend per kilometre increased from £7.80 per km to £9.20 per km (18%). However, the fall between 2009/10 and 2010/11 of 9.5% halved this increase.

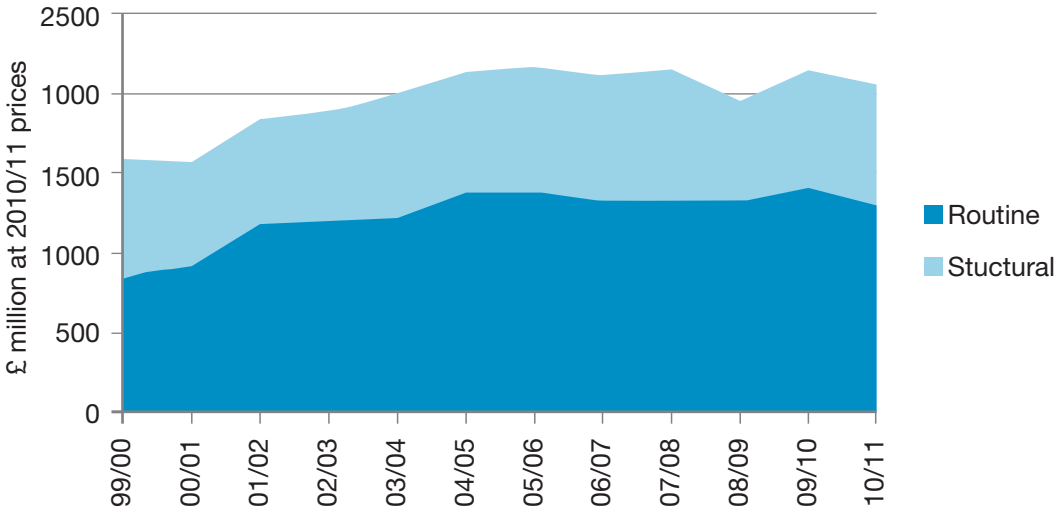
6 Department for Transport (2012g) and Department of Transport (1991), Table 2.48(c)
7 Department for Transport Local Government and the Regions (2001), Table 3.20
8 Department for Transport (2012g)

Figure 5: English local authority motorways and A road maintenance expenditure, 1999/2000 to 2010/11 (2010/11 prices)



Source: Department for Transport (2012d)
Note: The accounting method changed from UK Generally Accepted Accounting Practice in 2008/9 to the International Financial Report Standard in 2009/10.

Figure 6: English local authority B, C and unclassified road maintenance expenditure, 1999/2000 to 2010/11 (2010/11 prices)

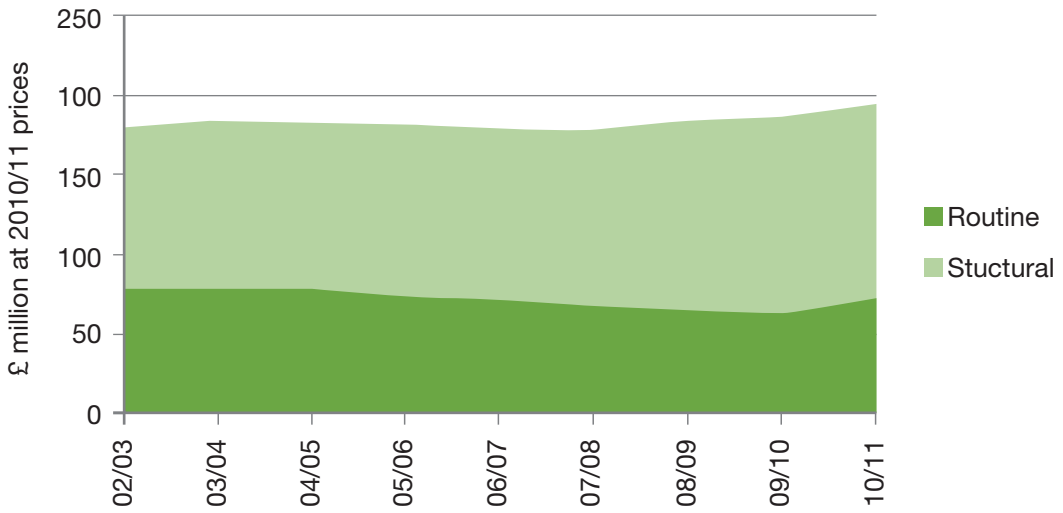


Source: Department for Transport (2012c)
Note: The accounting method changed from UK Generally Accepted Accounting Practice in 2008/9 to the International Financial Report Standard in 2009/10.

In Wales over the same period (2002/3 to 2010/11) there was an increase in maintenance spending (in real terms) of 2.8%, comprising an 8% fall in

structural maintenance and a 21% increase in routine maintenance spending. Between 2010/11 and 2012/13, a 10% reduction in the road maintenance budget is planned.[9]

Figure 7: Welsh road maintenance revenue expenditure, 2002/3 to 2010/11 (2010/11 prices)



Source: STATSWALES (2012c)

Capital spending on road maintenance is reported as part of a total for roads, street lighting and safety. This has seen a recent downturn (9% between 2008/9 and 2010/11), with a further 20% reduction forecast between 2010/11 and 2012/13.[10]

9 STATSWALES (2012b)
10 STATSWALES (2012a)

5. The Maintenance Backlog

Since 1995 the Asphalt Industry Alliance has carried out an annual survey of road maintenance needs and expenditure among local highway authorities in England and Wales. The 2012 survey[11] secured responses from 70% of these, and estimated the shortfall in the local road maintenance budget for these authorities in England and Wales to be £788 million, with over a quarter of spending on reactive maintenance, including £90 million spent filling 1.68 million potholes.

Around 90% of local authority respondents believed maintenance underfunding could pose a threat to road users' safety. Funding had been decreasing for the previous three years, and the lack of a long-term funding programme was impairing the efficient planning of maintenance activities, with reactive maintenance believed to cost up to 20 times more than well-planned programmes to achieve similar ends.

Moreover, poor road conditions result in compensation claims that diminish the funds available for maintenance and repairs. A recent set of Freedom of Information requests by Britannia Rescue[12] produced an estimate of 54,000 claims for 'pothole compensation' over the last two years, resulting in payouts of £4.8 million – enough to repair 96,000 potholes.

It was estimated that there has been a funding shortfall of as much as £1 billion a year since 2000. The cost of clearing the backlog maintenance was estimated to cost £9.7 billion, and even if local authorities had the required funding and staff, it would take 11 years to eliminate.

11 Asphalt Industry Alliance (2012)
12 Britannia Rescue (2012)

6. Funding Prospects

The autumn 2010 Comprehensive Spending Review[13] proposed a substantial cutback in public expenditure in order to reduce the net deficit in the public accounts and eventually reduce the national debt. The government also announced that "to deliver this, we are revolutionising the way local authorities receive transport funding."

"In the past, central Government dictated to local communities how and on what they should spend their transport funding. This will no longer be the case as local communities will now be free to decide what their own priorities are and will be able to set their budgets according to local, not national priorities. That is why we are moving from 26 grant streams to just four grant streams:-

- a local sustainable transport fund (capital and revenue);
- major schemes (capital);
- block funding for highways maintenance (capital); and
- block funding for small transport improvement schemes (capital)."

This means that non-capital local road maintenance grant aid is provided through the main Local Government Formula Grant administered by the Department for Communities and Local Government. As such, non-capital road maintenance expenditure will have to compete with most other local service programmes.

The funding proposals for transport will reduce overall spending by 15% in real terms, making savings of 21% from our resource budget and an 11% reduction in capital spending. The figures that relate to local road maintenance are shown in Table 1.

13 HM Treasury (2010)

Table 1: 2010 Comprehensive Spending Review for local government – roads

Expenditure (£ million)	Baseline 2010/11	2011/12	2012/13	2013/14	2014/15	Change (real)
Local government road maintenance – capital	871	806	779	750	707	
Local government transport – resource	473	378	401	413	420	-28%

Source: Department for Transport (2010)

The way in which the 2010/11 baseline figure for capital is estimated makes comparison with later years difficult, but it is clear from the 2011/12 to 2014/15 numbers that there is a significant (perhaps 18%+ real) reduction in local government capital spending on road maintenance.

However, it is stated in the Comprehensive Spending Review that "the Department believes that it is essential that we continue to prioritise highways maintenance, reflecting its economic and social importance to local communities and safeguarding the largest single local public asset."

The settlement of approximately £3 billion over the four years assumes "significant scope for efficiencies, for example through combining purchasing power of local authorities to drive down prices", although the scale of these is not revealed.

The funding for resource expenditure on highway maintenance will depend on the priority it gets in local authority budgets, but if it changes in line with overall resource allocation, it will see a 28% reduction between 2010/11 and 2014/15.

These reductions are significantly greater than for the Department for Transport's (DfT's) budget as a whole.

The priorities in the DfT's current business plan[14] are to:

- deliver the Coalition's commitments on high-speed rail;
- deliver a sustainable and customer-focused railway;
- support sustainable local travel;
- invest in our (strategic) roads to promote growth, while reducing congestion and tackling carbon;
- promote sustainable aviation;
- reform the Coastguard and search and rescue helicopter capability; and
- implement the Department's key cross-cutting reform priorities.

14 Department for Transport (2012b)

The business plan does not mention the condition or maintenance of local roads, which carry 175 billion vehicle km (two thirds) of England's road traffic[15] and practically all local bus services. The list of indicators for sustainable local travel[16] similarly makes no reference to the physical or traffic conditions on local roads, being confined to:

- bus subsidy per passenger journey;
- proportion of trips under 5 miles taken by (i) walking or cycling and (ii) public transport;
- proportion of bus services running on time; and
- bus passenger journeys.

While it might be argued that the condition of the 300,000 km of non-trunk roads in England is a matter for local highway authorities, it is difficult to square this with the Department's desire to know whether the percentage of local buses reported as running on time was 80% or 81% in 2011/12.

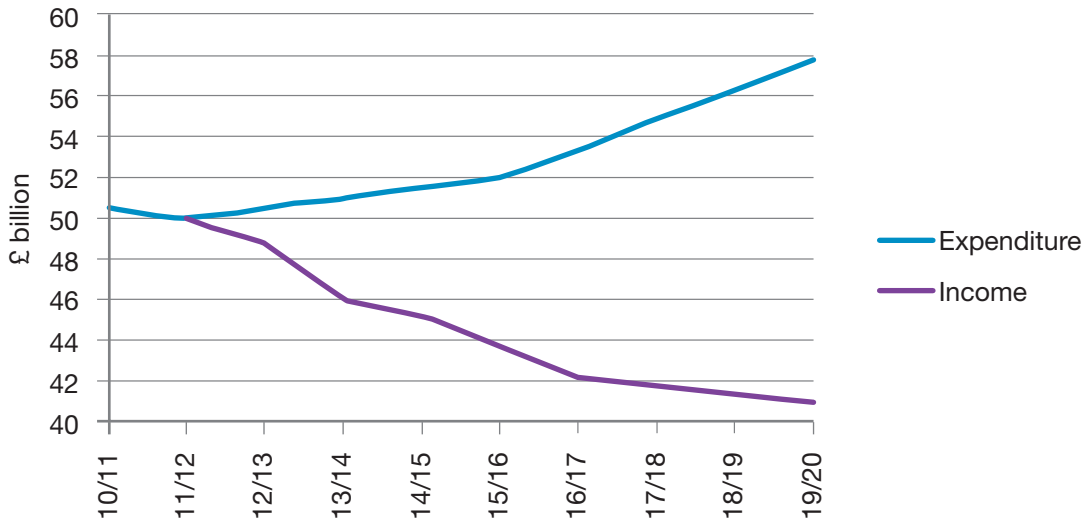
The Local Government Association has recently published an analysis of funding prospects for its various services (in England and Wales) over the period to 2019/20.[17] This has required a series of assumptions that are thought to present a fair picture of what would arise if present government policies are maintained over that period.

Income is expected to fall from £50.5 billion in 2010/11 to £41 billion in 2019/20 (a reduction of 19% in cash terms and 23% in real terms[18]) as a result of falling central government grants from £27.9 billion in 2010/11 to £24.2 billion in 2014/15 (planned), and thereafter to £17.6 billion by 2020 (assumed). This is offset, to a limited extent, by increases in other income streams (mainly council tax and national non-domestic rates).

In parallel, projections of expenditure were made for nine major service areas– one of which was highway roads and transport – again involving a range of assumptions that include efficiency improvements, and which are claimed to err on the side of caution. This produces an increase from £50.5 billion in 2010/11 to £57.75 billion in 2019/20. Putting these together, a funding gap starts to emerge in 2013 and steadily widens to £16.75 billion in 2019/20 – see Figure 8.

15 Department for Transport (2012j)
16 Department for Transport (2012h)
17 Local Government Association (2012)
18 This appears to assume a low figure for inflation

Figure 8: Local authority net expenditure and income prospects in England and Wales (out-turn prices)



Source: Local Government Association (2012)

It is expected that spending on some services will grow while spending on others will decrease. The main source of spending growth is social care, which is projected to increase its share from 39% to 61%, followed by environmental services (including waste), which is projected to grow from 10.5% to 16%. This will increase pressure to reduce budgets in other service areas including transport and roads.

Spending on highways and transport was treated as 'concessionary fares' and 'other'. Concessionary fare expenditure was increased by inflation – despite the anticipated increase in the numbers of eligible people – so was very conservative. 'Other' expenditure was adjusted for inflation and the increase in vehicle miles forecast in the National Road Traffic Forecasts.[19]

This meant that spending on transport and highways would decrease, as a proportion of the total, from 7% to 4%. Applying this to total expenditure results in a (cash) reduction from £3.54 billion in 2010/11 to £2.3 billion in 2019/20.

If the 2019/20 figure is reduced to match forecast income (at the same proportion of the total), it falls to £1.65 billion in 2019/20. If proportionate savings are not made in other service areas (notably social care), it is likely that the outcome will be even worse.

In 2010/11, local authority expenditure on the maintenance of motorways and A roads in England was £1.01 billion (£626 million structural and £384 million

19 Department for Transport (2012a)

routine), and on minor roads was £2.06 billion (£1.30 billion structural and £735 million routine).[20] In Wales, maintenance expenditure in 2009/10 was £85 million (£12 million structural and £73 million routine).[21]

Expenditure on concessionary fares was £906 million in England in 2010/11[22] and £67 million in Wales.[23] These figures total £4.13 billion, which is somewhat higher than that in the Local Government Association analysis. Thus the total is split approximately 75:25 for maintenance:concessionary fares.

Even if it were within local authorities' discretion, the scope to ease pressure on the highway maintenance budget by reducing the cost of concessionary fares would be rather limited.

20 Department for Transport (2011c)
21 STATSWALES (2012c)
22 Department for Transport (2012b)
23 Welsh Assembly Government (2010)

7. Conclusions

There is a substantial backlog of local road maintenance in England and Wales, with too high a proportion spent on reactive maintenance (and user compensation) and too little on efficient planned maintenance. Maintenance activity has been falling recently, and with present spending plans is set to decline further. This will be evident in the slow deterioration in the condition of these valuable transport assets – recently evidenced by the winter rashes of carriageway potholes.

The 2010 Comprehensive Spending Review foreshadowed a significant reduction in local authorities' budgets for the maintenance of the roads in their care, with no clear indication of how the efficiencies required to mitigate this are to be obtained.

A preliminary assessment by the Local Government Association of funding prospects for local services paints an even direr picture – with road maintenance being heavily squeezed between a growing gap between available funds and overall local service needs, and pressure on transport budgets from the bigger ticket services of social care and the environment.

If present spending plans are unchanged, the prospect for local authority roads in England and Wales (and these include 84% of the A road network[24]) is one of steadily deteriorating asset quality, a deterioration in the cost effectiveness of road maintenance spending, and poorer conditions for all types of road users.

24 Department for Transport (2012g)

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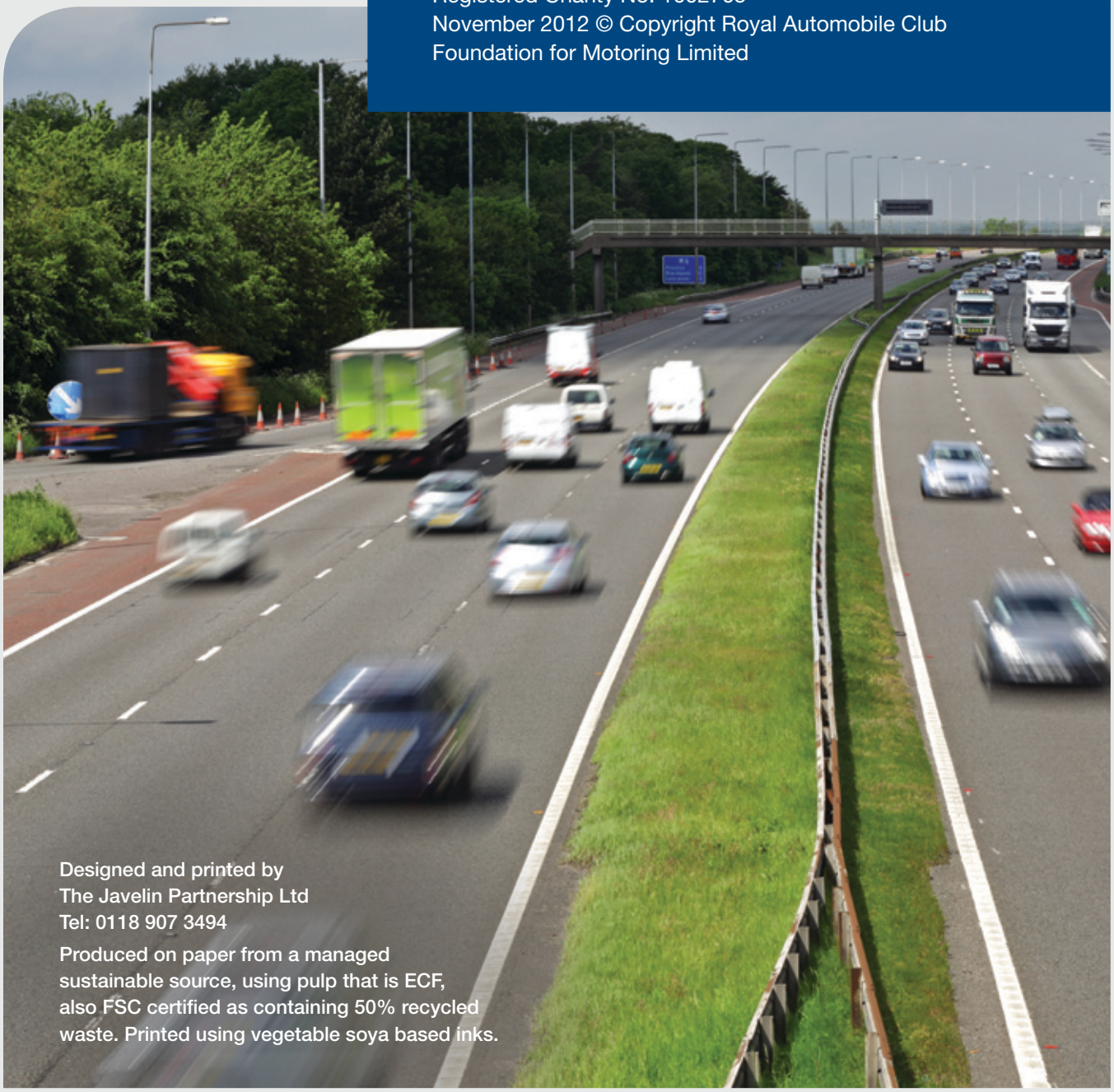

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