



House of Commons  
Transport Committee

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# Out of the jam: reducing congestion on our roads

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**Ninth Report of Session 2010–12**

*Volume I: Report, together with formal  
minutes, oral and written evidence*

*Additional written evidence is contained in  
Volume II, available on the Committee website  
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## The Transport Committee

The Transport Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Department for Transport and its Associate Public Bodies.

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The Reports and evidence of the Committee are published by The Stationery Office by Order of the House. All publications of the Committee (including press notices) are on the internet at <http://www.parliament.uk/transcom>. A list of Reports of the Committee in the present Parliament is at the back of this volume.

The Reports of the Committee, the formal minutes relating to that report, oral evidence taken and some or all written evidence are available in a printed volume. Additional written evidence may be published on the internet only.

### Committee staff

The current staff of the Committee are Mark Egan (Clerk), Marek Kubala (Second Clerk), David Davies (Committee Specialist), Tony Catinella (Senior Committee Assistant), Edward Faulkner (Committee Assistant), Stewart McIlvenna (Committee Support Assistant) and Hannah Pearce (Media Officer).

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## Summary

For car drivers on their way to work, for lorry drivers delivering goods from the warehouse to the shop, or for families going on holiday, the road network is a single continuous entity. But when it comes to the operation of the network, this is not the case: responsibility for managing different parts of the network in England is currently split between the Secretary of State, through the Highways Agency, and local highway and traffic authorities. This complicates road and traffic management: but ensuring that the road network runs smoothly is vital to the prosperity of the nation and congestion on the road network should be seen within the wider context of a general transport policy.

Our previous inquiry *Transport and the Economy* cited evidence that showed that the rising cost of congestion would cost the UK economy an extra £22 billion per annum by 2025. One option for reducing road congestion—road pricing—has been ruled out by the Government. Extensive investment on new roads is also unlikely given the current economic climate. In our inquiry we looked at other ways in which road congestion could be reduced by focusing on improvements to road and traffic management.

There is also no single cause of road congestion. Problems may occur on any road, in any part of the country, at any time of the day or night, depending on traffic conditions, the design of the road or junction, planned or emergency road and street works, accidents or incidents. Congestion can be very localised, or can involve the strategic road network. Our inquiry highlighted the diverse nature of factors contributing to congestion and showed that solutions for tackling congestion involve using a varied range of techniques and policies in the most appropriate contexts, and in a co-ordinated and coherent way, in order to get the most out of our road network. They include, among other things:

- maximising road capacity, making better use of information and communication technology;
- minimising disruptions on the road;
- better links between agencies and authorities with responsibility for various sections of the road network;
- the sharing of road management best practice;
- providing more reliable information for travellers;
- and improved driver behaviour, based on better understanding of and adherence to the *Highway Code*.

We have suggested numerous ways in which the Government can get the most out of the existing road network. The Government has taken steps in this direction in relation to the major roads managed by the Highways Agency, but more should be done to help ensure that local authorities co-ordinate their road and traffic management activities with other highways authorities, and have access to existing technology and make use of current best practice. The Government's commitment to localism needs to be seen in the wider strategic context so that traffic management can be effective across the country.



# 1 Introduction

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1. The cost of road congestion in the United Kingdom is astonishingly high. The Eddington Transport Study of 2006 was widely quoted in evidence; this estimated that a 5% reduction in travel time for all business travel on the roads could generate around £2.5 billion of cost savings, for example relating to missed appointments and delayed delivery times.<sup>1</sup> The Department for Transport's (DfT's) written evidence estimated that the cost of congestion to business is set to rise by £10–12 billion over the period from 2003 to 2025 (expressed in 2002 prices). Adding in the value of the lost time experienced by other travellers raises this figure to £23–24 billion per annum.<sup>2</sup>

2. Tackling congestion should be viewed in the wider context of transport policy; indeed, it is one of the main priorities for the DfT. Its Business Plan for 2011–15 sets out numerous aims in this area:

- to improve traffic flow and remove bottlenecks on the strategic road network;
- to introduce Heavy Goods Vehicle (HGV) road user charging;
- to review the operation and structure of the Highways Agency;
- to switch to more effective ways of making roads safer;
- to encourage sustainable local travel and economic growth by making public transport (including light rail) and cycling and walking more attractive and effective, reducing carbon emissions;
- to tackle the causes of local traffic congestion, and giving more flexibility to local authorities to tackle traffic problems;
- to reform the management of road works.<sup>3</sup>

Missing from this list, however, is road pricing (other than for HGVs), which some organisations continue to argue would be the most effective means of reducing congestion.<sup>4</sup> We decided to look at how, without road pricing, the Government could better manage the existing road network and the traffic that uses it to reduce congestion. The range of policy interventions at national level is mirrored at the level of local highway and traffic authorities. Transport for London, for example, outlined the Network Operating Strategy that it is developing, in recognition of the fact that “the efficient management and operation of the road network is of significant economic importance”.<sup>5</sup> Many local highway authorities have developed network management plans covering similar ground.

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1 Ev 104 and Ev 113

2 Ev 120

3 [dft.gov.uk/about/publications/business/plan2011-15](http://dft.gov.uk/about/publications/business/plan2011-15)

4 For example, Ev w36, Ev w48

5 Ev 187

3. Our inquiry was launched in autumn 2010. We sought written evidence on:

- the extent to which the Government and local authorities should intervene to alleviate congestion, and the best means of doing so;
- the extent to which road user culture and behaviour undermine effective traffic management, including the relevance of *The Highway Code* to road users;
- intelligent traffic management schemes that can help to alleviate congestion, such as the ‘managed motorway scheme’ on the M42;
- the effectiveness of legislative provisions for road management under the New Roads and Street Works Act 1991, and the Traffic Management Act 2004;
- and the impact of bus lanes and other aspects of road layout.<sup>6</sup>

4. We held four oral evidence sessions and received 56 written submissions: we thank all those who gave written and oral evidence. We also visited a National Grid road works on Regents Street, London and the Transport for London’s Street Traffic Control Centre in Southwark, London. We would like to thank both organisations for facilitating such interesting visits, and for their time in explaining their activities. We would also like to thank our specialist adviser, Mike Talbot.<sup>7</sup>

## Roads: who’s in charge?

5. As far as many road users are concerned the road network is a single entity. But responsibilities for managing the network are currently split between different bodies. The Secretary of State has responsibility for overall Government policy on roads, puts the relevant legislation in place, sets the strategic framework for new developments in traffic management, and establishes financial parameters. The Highways Agency is an executive agency of the Department for Transport (DfT) and, on behalf of the Secretary of State, operates, maintains and improves the strategic road network—most motorways and all-purpose trunk roads—in England.<sup>8</sup> Local highway and traffic authorities—County Councils, Metropolitan Borough Councils, Unitary Authorities, London Boroughs and Transport for London—are responsible for all other public roads (including non-trunk ‘A’ road, ‘B’ and ‘C’ roads) and a small number of short, motorway standard ‘A’ roads in major urban areas.<sup>9</sup> Integrated Transport Authorities (ITAs) (which replaced the six English Passenger Transport Authorities in 2009) have full responsibility for local transport plans in their cities and can modify governance arrangements within their areas.

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6 The Government has decided not to introduce road pricing on existing roads, except in relation to road use by Heavy Good Vehicles, and as a consequence the Inquiry did not cover this issue. The Committee also chose not to study the issue of parking, but might return to this issue at a later date.

7 Mr Talbot made formal declarations of interests, which can be found in the formal minutes of the Transport Committee, Session 2010-12, Appendix B.

8 Although the strategic road network comprises only 3% of the network, a third of all road traffic in England and over two thirds of heavy freight vehicles use it.

9 B Roads are numbered local roads with lower traffic densities than A Roads and are usually no longer than 15 miles. C roads are the lowest trafficked of the classified roads but many roads are unclassified.



## What is congestion?

6. In order to investigate how congestion can be reduced on our roads, we first had to understand what is meant by ‘congestion’. Many of our witnesses pointed out that congestion means different things in different contexts, a view summarised by Garrett Emmerson from Transport for London:

It can mean unreliable journeys in terms of the length of time that journeys will take, taking 20 minutes one day, 40 minutes the next and so on; it can mean that journeys are just too slow; or it can mean that in times of exceptional disruption, road works or special events and things like that, journey are very different from the way they normally are.<sup>10</sup>

7. Congestion is not restricted to specific types of road, but, as Iain Reeve from Surrey County Council told us, “it can just as easily be in one of our towns with a main A road running through it as it can be on the M25 or a large motorway”.<sup>11</sup> Congestion is also not confined to vehicles, although they are the principal focus of this Report; there are clearly circumstances where pedestrian congestion is a problem, for example in busy town centres, as was mentioned during our final oral evidence session. Garrett Emmerson told us about the issue of pedestrians disobeying traffic signals and the associated problems of enforcement, which could lead to more delay and congestion.<sup>12</sup> While recognising that congestion can be defined in different ways it was clear from the evidence that it is a concern both to those who operate, and those who use, the road network. But is it really getting worse? The DfT’s statistics show that congestion has fallen on both local and strategic roads over recent years.<sup>13</sup> While the DfT explained the drop in part due to “various interventions on the road”—with the accumulated effect of schemes such as managed motorway schemes, junction improvements, and better management of incidents—it stated that “the recent recession will also undoubtedly have had an effect with the latest estimates showing overall traffic to have fallen by 1.8 % since 2007”.<sup>14</sup> In other words, once the economy picks up, congestion levels are also likely to increase. Without significant improvements in road and traffic management, or a fresh look at road pricing, congestion may increase again.

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10 Ev 54

11 Ev 36

12 Ev 58

13 Ev 119 and Ev w7

14 Ev 19

## 2 Maximising the capacity of existing road space

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### Shared space

8. People travel not only by car, but by other modes of transport, including bus, bicycle, motorcycle, and on foot; and goods are transported by lorries, vans and other vehicles. Each mode of transport has its own specific requirements, and tensions can arise between road users sharing scarce road space. David Brown, of the Passenger Transport Executive Group (Pteg), described the multiplicity of travel patterns using different modes as “a complex mix that contributes towards overall traffic congestion”.<sup>15</sup> Making adequate provision for specific groups of road users is an important part of managing the road network effectively. For example, bus lanes and other bus priority measures are tools that local authorities deploy to help make bus services more reliable and to ease congestion by managing traffic flows. We received more evidence in favour of priority measures for buses than against: ITS UK (“ITS” refers to Intelligent Transport Systems) wrote that “a double-decker bus carries the equivalent of 50+ cars but occupies the space of fewer than 5 cars”.<sup>16</sup> Passenger Focus carried out research published in March 2010 which showed that “improving punctuality is the highest priority for bus passengers”; and their “Bus Passenger Survey” in July 2010 found that while “overall passenger satisfaction with their bus journey ranged from 84 per cent to 92 %”, the proportion of passengers satisfied “was generally lower for the length of time spent waiting for the bus (68–82%) and whether the bus arrived on time (67–84%).”<sup>17</sup>

9. David Brown, of PTE described the way in which South Yorkshire used Government funding to tackle congestion by supporting bus use:

We put that money into measure to support bus travel but also to reduce overall congestion. That was successful and led to increases in funding. Now, despite the fact that background traffic levels have increased over that four-year period, the average journey in the peak is lower than it was four years ago because we targeted that money, which is against a national outcome but was delivered on a local sub-regional level.<sup>18</sup>

Evidence also showed that well-designed bus lanes do not delay other traffic. Peter Nash, of Stagecoach, told us about an example in Newcastle, when traffic flow was measured before and after a bus lane was introduced: “The traffic flow was exactly the same afterwards as before, but the buses jumped the queues”.<sup>19</sup> We also heard about the benefits of allowing other vehicles to use bus lanes at certain times, but that it depends on the location. David Brown, of PTE, said:

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15 Ev 18

16 Ev 85

17 Ev w15

18 Ev 20

19 Ev 22

In places like South Yorkshire, we have differences between Sheffield and Doncaster. In Doncaster, we have introduced bus lanes as additional road capacity, purely for buses, cyclists and taxis, whereas in Sheffield, in certain areas, that is more difficult just because of topography. Therefore, we have had to concentrate on traffic light priorities in Sheffield. So it does vary depending very much on the individual locations.<sup>20</sup>

**10. Our recent inquiry, *Bus Services after the Spending Review*, concluded that bus services are an important and valued form of transport for many people, enabling them to participate in employment, education and voluntary services, and to access health services and shops. Bus lanes are an important means of supporting local transport, and if well designed, bus priority measures can also make a substantial difference to our congested roads.**

11. Bus lanes can provoke strong feelings both for and against and this was exemplified by the debate on the M4 bus lane, a controversial 3.5 mile bus lane on the eastbound carriageway of the M4 motorway, between Heathrow Airport and central London. The lane was opened as a pilot in June 2001 by the then Deputy Prime Minister, John Prescott, and was reserved for buses, coaches, motorbikes, emergency vehicles and licensed taxis (but not minicabs). It was suspended in December 2010 and the road width has reverted to all-traffic use. The bus lane will be reinstated temporarily for the 2012 London Olympics as a 'Games Lane' for accredited Olympic athletes, officials and others, after which it is likely to be scrapped permanently.

12. The Campaign for Better Transport described the M4 bus lane as “a particular example which can help as part of overall traffic management” and wrote that:

One year after it opened, the Transport Research Laboratory looked at the bus lane and compared journey times before and after it opened. Their findings showed how effective the bus lane was at cutting peak-time congestion [...] Despite claims that the bus lane was always empty, TRL found that ‘7% of the vehicles on the M4 into London use the bus lane, but they contain 21% of the people, including drivers.’ One in five people entering London via the M4 did so via the bus lane.<sup>21</sup>

However, Ministers refuted this point; Norman Baker MP said that “the bus lane was not largely used and was used particularly for coaches” and Mike Penning MP told us that “[i]t was not doing the job it was designed to do and was creating a more congested area before the elevated section of the M4, which is why we made the decision, after consultation, to remove it”.<sup>22</sup>

In written evidence, the Department said:

Since the suspension of the M4 Bus Lane on 26 November 2010, journey times have shown an improvement in line with our modelled predictions. Initial investigations currently show an improvement in average daily journey times of approximately 40

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20 Ev 20

21 Ev w21

22 Ev 63

seconds from M4 Junction 4 to J1 in an eastbound direction. However, further in-depth analysis will be carried out during 2011 to validate these early conclusions.<sup>23</sup>

13. It is clearly too early to tell whether or not the decision to scrap the M4 bus lane has speeded up traffic flow, although there are early indications of modest improvement. **We recommend that the Government publish early next year a detailed assessment of traffic flow on the M4 in the year since the bus lane was scrapped. If the evidence shows that the bus lane contributed to faster movement—taking account of all travellers—it should be reinstated.**

14. A wider range of road users affects congestion on local roads. Christopher Peck of the CTC, the national cyclists' organisation, told us that "you can carry 14,000 cycles per hour per lane, as opposed to 2,000 per hour per lane for a car".<sup>24</sup> Living Streets made the point that many streets are places for experiencing and living in, rather than simply a means of moving to and from a destination.<sup>25</sup> Car clubs and car sharing schemes are on the increase; Mike Penning MP told us that "we are a nation that loves its car"<sup>26</sup> but schemes such as these can meet that need, while making better use of existing road space.<sup>27</sup>

15. Making the most of the road capacity for all road users requires active management of the road network by the highway authorities and they need the appropriate tools to do that. The Traffic Management Act (TMA) was intended to prompt local highway authorities to tackle congestion effectively and to give them additional powers to do so. Part 6 of the TMA provides for the rationalisation and extension of civil enforcement of parking, bus lane and other moving traffic contraventions. However, it is only in force in relation to parking. While there is other legislation covering bus lane enforcement—and, in London, other moving traffic contraventions such as in relation to box junctions, banned turns and access controls—the free movement of traffic across the road network outside London is hindered by the inability of local authorities to enforce moving traffic offences. Mark Kemp, of the Association of Directors of Environment, Economy, Planning and Transport (ADEPT) spoke of its success in London:

You can see these things working in London and, to some degree, some of the benefits they have had have come from these powers. But, quite clearly, there is a win to be had in getting that part of the Act through so that local authorities can take on that responsibility should they wish to do so. I know that some of the major cities around the country are keen to do that.<sup>28</sup>

**16. We can see no reason why Part 6 of the Traffic Management Act 2004 should not be fully commenced to enable local authorities to deal more effectively with moving traffic contraventions and we recommend that the Government bring this part of the Act into force, by 2013.**

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23 Ev 124

24 Ev 7

25 Ev 175

26 Ev 61

27 Ev 82 and Ev w21

28 Ev 15

## Managed motorways

17. Maximising the capacity of existing road space can help to alleviate congestion and the managed motorway scheme is one means of achieving this. Since 2006, a pilot ‘Active Traffic Management’ scheme has been operating on part of the M42 south of Birmingham, which involves traffic being allowed to drive on the hard shoulder, under controlled conditions, at busy times of the day. The scheme involves information signs, ramp metering<sup>29</sup> and an incident management system that allows operators to open or close any lane to traffic and to reduce the speed limit, in order to help alleviate congestion or to clear an incident.

18. Our evidence was predominantly in favour of the managed motorway scheme. In written evidence, the Institute of Engineering and Technology (IET) described the merits of the M42 pilot scheme:

The evidence of its success is well documented, which includes a 24% reduction in average journey times, 27% improvement in journey reliability and a rollout which was 40% cheaper than building an extra lane. Personal injury accidents also decreased from 5.1 to 1.8 per month.<sup>30</sup>

Andy Graham, of the ITS UK, told us that “many of the stakeholders who were concerned about it at the start of the project over the three years it has been monitored have all believed it to be a success”.<sup>31</sup> Nick Reed, from the Transport Research Laboratory, told us:

From the studies we have done, we find that people generally behave quite conservatively. They follow the signs; they do what is being asked of them by the managed motorway information. That really does help to improve the traffic flow—the traffic situation—and increased throughput has been observed on the active traffic management scheme on the M42.<sup>32</sup>

19. Nick Croft of the Association of Chief Police Officers (ACPO) generally supported managed motorways but went on to say that

on the M42 around the Midlands, most of the junctions are very close, so we do not tend to get very long tailbacks. Our only concern would be where we have four lanes of stationary traffic over 12 miles between junctions. It is how you get the emergency services to people. If it is a matter of life or death where, very unfortunately, minutes can make the difference between someone living or dying where their airway is blocked, for instance, we need to get people there quickly. There is just, I suppose, an element of caution for us to say how we make sure we can do that. There are ways round it, but we just have to make sure that when we go for those schemes, we are going into them with a full knowledge of how we access the route at times of crisis.<sup>33</sup>

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29 Ramp metering involves the use of traffic lights on a slip or ramp road, to control the flow of vehicles onto a motorway.

30 Ev 161

31 Ev 30

32 Ev 15

33 Ev 52

20. The DfT's written evidence described its intention to introduce managed motorway schemes on other motorways:

As part of our future spending programme, we will be taking forward a number of managed motorway schemes across the country. The M42 pilot of hard shoulder running showed that the measure can improve reliability and reduce the number of accidents, delivering a substantial proportion of the benefits of conventional road-widening solutions, while securing cost savings of at least 40%.<sup>34</sup>

Indeed, the future spending programme includes introducing the scheme to sections of the M62, M4, M6, M1, M25 and M60 between now and March 2015, which represents the majority of approved major road investments for this period.<sup>35</sup> It illustrates a major change in emphasis from widening motorways to using the existing network more intensively, perhaps also reflecting the criticisms made by the National Audit Office of the poor cost-effectiveness of the current M25 widening scheme:

The Agency should have given greater consideration to hard shoulder running from the outset of its project. Even in late 2008 and early 2009, when the Agency had satisfied itself on the general benefits and savings of hard shoulder running, we believe it should have given great consideration to the approach before its final decision to let the widening contract. [...] We estimate there were potential construction and financing savings to consider of £400–700 million (12–21 per cent) over the private finance widening.<sup>36</sup>

**21. We agree with the Government that the 'managed motorways' approach should be implemented on other parts of the strategic road network, but are realistic in recognising that the approach may not alleviate the whole problem of congestion. Also, we share concerns with the police about safety on stretches of motorway where junctions are widely spaced and where the use of the hard shoulder by motorists could prevent emergency vehicles from reaching accidents. The Government needs to address how to manage congestion on stretches of motorway where the 'managed motorway' approach might not be appropriate. In addition, we expect the Government to monitor the effectiveness of the managed motorway approach as it is extended more widely, with particular reference to cost and safety issues.**

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34 Ev 123

35 <http://www.highways.gov.uk/roads>

36 National Audit Office, *Highways Agency: procurement of the M25 private finance contract*, HC 566 Session 2010-11, p 31

## 3 Information

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### Information for managing the network

22. The road network can be managed in a proactive way, by the use of Intelligent Traffic Management (ITM) Schemes, which use electronic equipment and communication networks to provide data to inform the decisions of traffic managers. The M42 managed motorway scheme, discussed above, is an example of an ITM scheme. Other examples include dynamically controlled traffic light phasing, variable message signs, dynamic car parking information on signs and bus passenger information. Some local authorities have taken up such schemes. For example, Andy Graham, of the ITS UK, told us about the SCOOT system, which controls the timing of traffic lights in urban areas in a way that responds to factors such as prevailing traffic flow, incident detection and bus priority:

[T]he SCOOT system has been used all around the UK, in Edinburgh and Worcester. Southampton is a good example. It has been sold to other countries like Toronto and other places in Canada. There are many systems and services that you could use to improve traffic co-ordination that have demonstrable benefits of perhaps 20% reduction.<sup>37</sup>

23. Local authorities are subject to financial constraints, with some also suffering a reduction in the number of staff who have expertise in traffic signing and signalling.<sup>38</sup> Anthony Sharp, former President of the Institute of Highway Engineers (IHE), told us that this shortfall in staff—estimated at 29% in an IHE study, Project Brunel—means that there is now not enough resource to identify appropriate tools and locations for intelligent traffic schemes.<sup>39</sup> The DfT funded an ITS Toolkit, which included a catalogue of Intelligent Transportation System (ITS) applications which could be used in different contexts, described the applications and promoted the benefits of such technology to local authorities. This is no longer being funded. Andy Graham, from the Vehicle Highways Interest Group of ITS UK, told us that the DfT should do more to promote Intelligent Traffic Management for the benefit of local authorities:

I think the Department were doing a good job until a couple of years ago. They had a project called the ITS Toolkit [...] It is no longer there; it is archived but out of date. I think the Department has a good role to play in communication [...] We need to have a very clear picture of the tools that are available, but I think, more importantly, you have to glue them together and you have to procure them at the lowest possible cost.<sup>40</sup>

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37 Ev 30

38 Ev 31

39 Ev 31

40 Ev 34

Mr. Graham went on to highlight the benefits for local authorities in joining forces to buying a system together, thereby reducing overhead costs.<sup>41</sup> Mike Penning MP told us that “working with local authorities is the key and that works reasonably well”<sup>42</sup> but said:

At present no funding has been allocated for the active management of the ITS Toolkit, although it remains available for local authorities to access and was updated in spring 2010. As resources permit, I will consider the future of the Toolkit, including alternative models for delivery which could involve local authorities.<sup>43</sup>

24. Urban Traffic Management and Control (UTMC) refers to both traffic management systems developed for towns and cities in particular, and a unified set of recommended standards, especially for the interfaces between the systems so that they can be joined together. Common standards and protocols help highways authorities specify the appropriate systems for their particular traffic management needs, and facilitate the development of systems by industry. Andy Graham described UTMC systems as

a good toolkit, but it needs to be glued together. It needs some lubrication and perhaps some money in certain places, but it also needs a bigger picture plan of how it all fits together, because there are too many little things in the jigsaw puzzle without a picture on the box.<sup>44</sup>

The UTMC Development Group (UDG) maintains and develops the standards and promotes the exchange and dissemination of good practice. The UDG receives funding from the Highways Agency and membership subscriptions. Norman Baker MP drew our attention to the Directory of UTMC booklet, which “demonstrates what has happened across the country and how different towns and cities have approached the co-ordination of information in a different way”.<sup>45</sup> He also commented on the benefits of ITS systems:

The DfT has, for 14 years, been pursuing the urban traffic management control mechanism to encourage the use of intelligent traffic control. That has been quite useful and has been rolled out in over 100 cities in the UK [...] The ability of technology to change dramatically how we approach road transport generally, but also public transport, is a very exciting topic. It has the potential to make better use of the network by getting cars and vehicles to move more freely.

Both the ITS Toolkit and the UTMC play a crucial role in the connecting of ITS systems within and across local authorities. DfT’s written evidence also extolled the virtues of the consistent use of established technologies: “These services can be provided individually, but greater benefits can be gained by integrating them into a UTMC system”.<sup>46</sup>

**25. The Government clearly has a role to play in working with highway authorities to identify the latest forms of intelligent traffic management systems and how such**

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41 Ev 34

42 Ev 63

43 Ev 125

44 Ev 31

45 Ev 64

46 Ev 123



systems can be used effectively and promoting joint procurement projects, principally through bodies such as the UTMC Development Group. We are disappointed, therefore, that the main means by which local authorities could identify suitable intelligence traffic management options, the ITS Toolkit, is now unfunded. In the absence of an up-to-date ITS Toolkit best practice is likely to be lost, and local authorities will be less likely to benefit from Intelligent Traffic Management schemes in helping to tackle congestion. The very nature of ITS, the need to maximise value for money and the need to make the most of limited, skilled resources make coordination between local authorities especially important. We recommend that the Government should renew its funding of the ITS Toolkit, or a successor project aimed at assisting highway authorities in identifying and procuring the most up-to-date and appropriate intelligent traffic management systems and in accessing available technology. The Government should work more closely with those involved in Intelligent Traffic Management systems, including the Highways Agency and local authorities, to ensure that there is greater collaboration and sharing of best practice.

26. Local authorities need to be aware of the effect that the use of satellite navigation devices (sat navs) have on the road network, especially those that have the capacity to use real-time information, of which there are currently 4 million in active use.<sup>47</sup> Vehicles can be sent down inappropriate roads by sat navs, a problem described to us by Mark Kemp, of ADEPT:

[A]t the moment there are algorithms within the sat navs that give you shortest journey, quickest journey—whichever the solution is that you want. What they don't give you is the most appropriate journey in terms of the highway network and managing the network properly. As an example, if you have an accident on the A14, there may be times when, rather than letting people go through Ipswich because that is where that sat nav is telling them, they would be better off sitting on the A14 for a short time. Making those decisions, I think, is critical in taking the next step in terms of incident management.<sup>48</sup>

27. Another issue affecting traffic management is how to incorporate information on road and street works into the picture alongside other traffic information and then how best to use that information for the benefit of road users. Roger Culpin of the Joint Authorities Group raised this issue:

Except for emergency works, which we would expect to hear within two hours, we would not know if anyone has gone in to start work probably until a day or so after works have already started, so that does not allow us to have computer systems that will automatically have the big screen that would say, 'Road works have started here.' [...] We are at the will of the utility and their contractor when they want to go in to do those works. There is no opportunity for what I would call real-time street work display, which would assist the sat nav companies and the likes of those informing motorists of congestion, and even bus companies to that extent.<sup>49</sup>

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47 Ev 34

48 Ev 16

49 Ev 29

28. Information is needed by local authorities to manage their networks on a day to day basis, for example in using ITM schemes. But they also need to understand how effectively they are carrying out that network management overall, to meet their responsibilities under the Traffic Management Act to measure their network management performance. Halcrow, the consultants who carried out the evaluation of the Traffic Management Act for the DfT in 2010, wrote:

Despite the [network management] duty being in place for more than six years and the fact that it includes the specific requirements for local traffic authorities to monitor their effectiveness and assess their performance, such monitoring regimes are not in place. There is no excuse for this.<sup>50</sup>

Our evidence showed some authorities with structured performance measures in place: Transport for London, for example, set out their six measures that “collectively quantify the performance of the road network in terms that road users understand”.<sup>51</sup> However, if the problems caused by congestion are going to be addressed nationwide, then all highway authorities should be assessing their own performance to monitor what works in their area and where improvements could be made. Local authorities are required to publish traffic management performance measurements as part of the network management duty under the Traffic Management Act 2004, and there is a sanction in the TMA where an authority fails in this duty. The Secretary of State can give the highways authorities directions on what they must do to improve, and ultimately can appoint a traffic director to take charge of network management.

**29. Highway authorities are legally obliged to monitor how they perform their traffic management functions: however, most fail to do so. This is an unacceptable situation which the DfT must address. The DfT should be more proactive in calling on local authorities to publish their traffic management performance measurements. We recommend that the Government require all highway authorities to publish traffic management performance measurements, by the beginning of 2013 at the latest.**

## Information for drivers

30. Much of our evidence argued that the consistency of the time taken to make a regular journey is as important as, if not more important than, the average time it takes to make that journey.<sup>52</sup> The predictability of a journey time can depend on being able to access accurate, up-to-date information, in order to decide whether to travel in the first place, when to travel, what route to take and the likely impact of changes in conditions *en route*, along with accompanying options of alternative routes.<sup>53</sup> We made this point in our recent Report, *Keeping the UK moving: The impact on transport of the winter weather in December 2010*, recommending that in adverse weather conditions, greater use should be made of

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50 Ev w49

51 Ev187

52 For example, Ev w8

53 Ev 111 and Ev 49

roadside information displays and in-car information systems to provide motorists with real time information about road conditions and disruption.<sup>54</sup>

31. In general, however, there is a danger of information overload, with drivers becoming too distracted by a multiplicity of in-car travel information, particularly from the more sophisticated sat navs. Radio information, including from the ‘traffic programme’ (TP) button on modern car radios which automatically switches radios, CDs and other devices to traffic bulletins, is often quicker, safer and more accurate than travel information which has to be read on a screen. Yet Paul Watters of the AA told us that research among their members showed that only 22% used the TP button on regular journeys even though 80% had that facility.<sup>55</sup> **We recommend that a leaflet should be sent to drivers, when they apply for their tax disc or driving licence, to highlight existing sources of detailed travel information—including information provided by the Highways Agency—and to remind drivers to use the ‘traffic programme’ (TP) button, which cuts into the radio to give accurate, up-to-date travel information.**

32. The Highways Agency already provides detailed real-time travel information on the internet and elsewhere but this only covers the strategic road network. Information about roads managed by local highway authorities is harder to come by. The importance of this information to the freight industry was highlighted by Malcolm Bingham of the Freight Transport Association:

The decision-making process for a freight operator to make a 300-mile detour or not is critical because of the expense he is going to incur in doing that. Therefore information is vital. We have good information on the strategic road network...[although] there are gaps even in that... [but]... there are massive gaps in local authority areas and we struggle to get information.<sup>56</sup>

Such real-time information is crucial for the freight industry, to ensure that deliveries are made on time and are not delayed because of congestion.

Iain Reeve, of Surrey County Council acknowledged the difficulty:

The information is fragmentary. Surrey has a website that tells you what is happening in Surrey, but if you go outside our borders we cannot help you. No one is going to look at three or four websites as they work out their end-to-end journey across more than one county boundary. There is a lot of work we need to do in this area.<sup>57</sup>

33. The Highways Agency and local authorities need to work together to provide better and more comprehensive real-time information. In his written evidence, Dr David Metz, former Chief Scientist at DfT, noted that “There is a significant amount of activity in both public and private sectors aimed at providing better information to travellers, but the uptake is slow.” He went on to suggest a research initiative to understand more

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54 Reference to *Keeping the UK moving: The impact on transport of the winter weather in December 2010*, para 58

55 Ev 39

56 Ev 39

57 Ev 40

comprehensively the behavioural responses to traffic information and to explore a joint public private approach to deployment. Garrett Emerson of Transport for London described what TfL has done to “make virtually all our traffic data information publicly available for apps designers and operators [...] working particularly closely with some of the satellite navigation providers to try to integrate our traffic information with the information [...] from their users and providers”.<sup>58</sup> Mike Penning MP referred to the services available to the freight industry where “their delivery times are timed within literally a five minute slot—sometimes even less than that. So they have to have the technology. That is very difficult to put into a car”.<sup>59</sup>

34. There are clearly both technological questions about collating and supplying consistent information across administrative jurisdictions, but also institutional questions about the ownership, availability and cost of such data.<sup>60</sup> The private sector is involved already in providing information and it is not necessarily the role of Government to support financially the provision of information over and above what is produced by the Highways Agency. However, if information has a public benefit because it can be used directly or indirectly for managing the network, as well as providing information to individual drivers, then there remains a case for Government interest. **The DfT should: decide what real-time travel information should be made available from local authorities and the Highways Agency to motorists and what should be provided by the private sector; identify barriers to collating and disseminating information; and develop a strategy for delivering that information, including the route for overcoming those barriers and the scope for public/private collaboration on deployment, giving examples of best practice.**

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58 Ev 60

59 Ev 64

60 Ev 60

## 4 Minimising the number and impact of events on our roads

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### Road and street works

35. There are two types of road repair works: those carried out by the highway authorities, who have a duty to maintain their roads under Part 4 of the Highways Act 1980; and those carried out by public utilities and cable companies, which have to comply with the New Roads and Street Works Act 1991. When the 1991 Act was passed, only a few utilities—many of which were only recently out of the public sector—were allowed to dig up the road; when the Traffic Management Act 2004 was introduced, the number of companies had grown, especially in the telecoms sector. At the same time major programmes of mains replacement and leakage reduction were under way in the gas and water sectors. The TMA was, in part, a response to both the increasing number of companies and to the increasing frequency of their works. Parts 3 and 4 of the TMA give highway authorities greater powers to improve coordination of works and to minimise unnecessary disruption caused by poorly-planned works. Authorities have more control over where and when works can and cannot take place; they can put in place longer embargoes to protect streets that are repeatedly dug up; and they have greater enforcement powers.

36. Witnesses did not call for more road and street works legislation, but wanted scope to improve the way existing legislation is used. The TMA requires local authorities to co-ordinate various works on streets and, under Section 60 of the TMA, utilities are legally obliged to co-operate with local authorities.<sup>61</sup> John Pettigrew of National Grid told us there was “a spectrum of implementation across local authorities”, with different authorities applying the law in different and sometimes inconsistent ways, “which makes our ability to minimise the impact on congestion more difficult”.<sup>62</sup> Roger Culpin, of the Joint Authorities Group, said that “communication is the key” between local authorities and utilities companies, to ensure they work together to minimise congestion.<sup>63</sup> There are currently examples of best practice being disseminated by different groups. The Greater London Authority’s evidence described TfL’s development of “incentives for works promoters to apply best practice and reduce the amount of time they spend digging up roads and/or disruption traffic”.<sup>64</sup> National Grid outlined its work in sharing best practice:

We share best practice with companies across the industry, through regional Highway Authorities and Utilities Committee (HAUC) conferences and National Joint Utilities Groups (NJUGs) Street Works Forums. We are fully supportive of NJUG’s submission to this inquiry.<sup>65</sup>

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61 Ev 38

62 Ev 23. We did not receive many submissions from local authorities on this issue and so do not have specific examples of variations between local authorities.

63 Dave Turnbull, of the National Joint Utilities Group, described TfL’s “workathons”, where streets are closed and different utility companies are invited in to carry out routine work at the same time, rather than sequentially (Ev139).

64 Ev 188

65 Ev 129

NJUG’s written evidence described its Annual NJUG Awards, which “provide examples of best practice, which are converted into case studies and shared across industry”<sup>66</sup> and highlights its work with other groups in sharing best practice:

NJUG has driven a number of voluntary initiatives delivering real benefits through a step-change in the quality and impact of street works, including improved safety, quality, sustainability, communication and reduced disruption, as well as extensive sharing of best practice.<sup>67</sup>

**37. Useful work is being undertaken to develop and promote good practice in minimising the number and impact of road and street works. We recommend that the DfT, working with the Highway Authorities and Utilities Committee (HAUC), should ensure that examples of best practice are disseminated to highway authorities and utility companies.**

38. The Traffic Management Act, and the Permit Scheme Regulations made under it, provided for a new system for highway authorities to manage street works from April 2008, to enable authorities to be more proactive in the management and control of activities taking place on their roads. Permit schemes provide for utilities to book occupation of the street for an allocated period of time, for a specific purpose. Conditions can be attached to permits that impose constraints on the how the work is carried out and they can allow the local authority to direct the timing of the work. To date, permit schemes have been introduced only in London, Kent and Northamptonshire. In London the scheme applies to all roads; in the other two areas permits relate only to certain roads (Northampton’s permit scheme went live in January 2011 and focuses on strategic roads, amounting to around 19% of their road network).<sup>68</sup>

39. The limited number of schemes and the short time in which they have been in existence means that there is not yet a consensus on what constitute the essential elements of a good permit scheme. The Chartered Institution of Highways and Transportation(CIHT) supports the permit scheme:

[B]y applying the Permit Schemes a greater degree of congestion reduction has been achieved (Kent County Council verbal statement) and despite an increase in costs to the community, all the Permit Fees costs may be ‘passed on’, there should be a corresponding reduction in congestion costs.<sup>69</sup>

Norman Baker MP was also enthusiastic about the permit scheme:

I am very keen to push the permit scheme arrangement, which has been successful. The initial findings in Kent, which has adopted it, are that roadworks have decreased 26%. That was the initial finding; 1,389 days in the last year have been saved on roadworks. The London figure is a 32% reduction as a consequence of the permit schemes there. You may know that, recently, seven further London boroughs have

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66 Ev 137

67 Ev 137

68 Ev 139

69 Ev 118

signed up to permit schemes in the last few weeks. That is a way of driving performance, co-ordinating roadworks better and making sure that there is ownership at local authority level for those particular works.<sup>70</sup>

40. The National Joint Utilities Group (NJUG) had concerns about some local authorities' operation of permit schemes, citing the London example, which "is not targeted to prioritise works on the most traffic-sensitive parts of the network," but requires permits for all works in all streets of those local authorities that have introduced it, regardless of whether the street is busy, so is "unlikely to reduce congestion, as intended whilst imposing significant additional costs on utilities and customers".<sup>71</sup> In contrast, it described the Kent scheme that concentrates on the most congested roads, thereby prioritising those works, and resulting in "a 50% reduction in complaints about street and road works".<sup>72</sup>

41. The Local Government Technical Advisers Group (TAG) commented that permit schemes do not remove all the operational problems connected with certain types of works:

[I]f a Distribution Network Operator (DNO, or Electricity Company) makes a supply to a property, then the DNO are responsible for obtaining the permit to open the road and lay the cables. If the supply is to a lighting or traffic sign then the permit would relate to 'Works for Road Purposes' and the highway authority becomes responsible for seeking the permit, but without any ability to control or influence the work programme of the DNO.<sup>73</sup>

National Grid's evidence highlighted the inconsistency in the way in which key performance measures are available for highway works covered by permits schemes to demonstrate that highway authorities are being even-handed in the treatment of works promoters: "In order to ensure effectiveness Key Performance Measures (KPMs) need to be developed and applied equally to all works promoters including Street Authorities".<sup>74</sup> NJUG stated that differing schemes add additional costs to utilities, customers and local authorities, and result in inadvertent non-compliance because of variations between schemes. John Pettigrew, of National Grid, also highlighted inconsistencies in their application and the impact they are having on congestion.<sup>75</sup> He argued that an independent assessment of the effectiveness of the London and Kent schemes should be carried out, as was agreed by the previous Government.<sup>76</sup>

42. It is clear from our evidence that while there is a good deal of support for permit schemes and some promising early results, questions about their impact remain. It is therefore important that permit schemes are monitored and reviewed, to give local authorities relevant data and examples of best practice. NJUG recommended that "mechanisms are in place to share best practice so that individual local authorities do not

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70 Ev 65

71 Ev 139

72 Ev 139

73 Ev w130

74 Ev 130

75 Ev 29

76 Ev 139. We did not receive evidence on specific examples of permit schemes in operation.

all ‘reinvent the wheel’” when devising permit schemes.<sup>77</sup> The DfT’s stated that “local authorities will be responsible for evaluating their performance”<sup>78</sup> and the Government is bringing forward proposals by April 2012 to allow schemes in England to go ahead without the Secretary of State’s approval.<sup>79</sup> Norman Baker MP told us that “[l]ocal knowledge certainly is best in terms of the specific solution for each individual congestion point or each individual high street. Obviously a local council know its high street better than the DfT, which has probably never even seen the high street”.<sup>80</sup>

43. The wider adoption of permit schemes by local authorities could result in the emergence of a single ‘best-practice’ approach, or a limited number of approaches—say for predominantly urban and rural areas—to managing street works. However, devolving permit schemes to local authorities could lead to significant variations between the schemes, resulting in a patchwork of different local authority approaches to street works, which could prove particularly burdensome to the utility companies. It is the role of Government to ensure that where there is variation between local authorities’ approaches to permit schemes, that variation is warranted given the potential cost implications. **The Government should commission an independent assessment of the London and Kent permit schemes, as was agreed by the previous Government. This assessment should assess whether the initial permit schemes are following the right approach and make recommendations about improvements, in order to inform other local authorities considering implementing their own permit schemes. The Government should also put in place arrangements to monitor the uptake of permit schemes and the variations between local authorities’ approaches.**

44. Another option for managing street works is lane rental, which was provided for in the Transport Act 2000 and which involves utilities “renting” lanes when they carry out works in the street. DfT’s written evidence describes its proposals “to pilot a ‘lane rental’ approach for the most traffic sensitive roads (legislation brought forward by December 2011)”<sup>81</sup> and Norman Baker MP told us that lane rental would “give an incentive directly for utilities to co-ordinate their works because they would have to share the cost of the lane rental rather than having to have the scarce bit of road dug up again and then bearing the whole cost of that particular operation”.<sup>82</sup> On 22 August 2011, the DfT published a consultation and draft guidance document for local authorities, outlining how lane rentals can be implemented.

45. The Greater London Authority (GLA) and London Councils support the lane rental scheme,<sup>83</sup> with the GLA arguing that:

lane rental would incentivise the streetworks industry to deliver real behavioural change and encourage it to change working practices, develop innovative working

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77 Ev 141

78 Ev 122

79 Ev 122

80 Ev 64

81 Ev 122

82 Ev 66

83 Ev 188 and Ev 193



methods (eg more joint working and shared contractors) and new technology (eg ‘no dig’ technologies; more sophisticated bridging and plating systems; application of new materials for trench reinstatement that do not need 24 hours to ‘cure’) to reduce the footprint and duration of works.<sup>84</sup>

Halcrow also argued in favour of lane rental:

By developing the lane rental scheme in such a way that drives a better consideration of the planning of works it will place the ownership for minimising unnecessary delay and obstruction back with the undertaker. [...] By focussing on works and/or reinstatement category and an estimate of traffic volume, it will drive the correct behaviour from the undertaker to reduce the duration of works. Additionally, including punitive lane rental charges that tackle unnecessary occupation relating to defective workmanship and/or multiple phase works will reinforce that correct behaviour.<sup>85</sup>

46. In their 2003 Report into local roads, our predecessors were not enthusiastic about lane rental schemes:

We do not believe that lane rental offers a sensible way to reduce disruption caused by street works. The works undertaken by utilities are necessary. The objective of any charging scheme should be to charge for inefficiency in carrying out the work, not for carrying out the work in the first place. The overrun charging system already provides a mechanism to achieve these objectives and should be made to work properly.<sup>86</sup>

A number of witnesses in this inquiry also had reservations about the widespread use of lane rental. NJUG wrote that lane rentals would be an additional charge imposed on utilities for every day they occupy the highway, regardless of how efficiently the work is undertaken, and that

given the myriad of regulation already available and the numerous voluntary measures introduced by NJUG, we do not believe that lane rental will necessarily deliver significant additional benefits over and above the existing legislation, whilst increasing utility costs considerably.<sup>87</sup>

John Pettigrew summarised the inherent problem of the lane rental scheme:

If there is a gas leak, we have to go and respond to it and we have to dig up the road to repair the pipe. Quite often that job will be a two-day job. However efficiently you do it, it is a two-day job. Therefore, to have to pay for those two days in addition to fixed penalty notices and overrun charges provide no incentive on us to look at the

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84 Ev 188

85 Ev w49

86 Transport Committee, Fifth Report of Session 2002-03, *Local Roads and Pathways*, HC 407, para 112

87 Ev 140

ways we are working. It just seems to penalise us for having to do what we have a statutory duty to do.<sup>88</sup>

**47. Our predecessors were not convinced about the merits of lane rentals, and we are yet to be convinced that the scheme is the best way of tackling congestion from street works. We recognise the potential of lane rental to target more directly changes in the behaviour of utility companies, which will potentially reduce disruption. However, we also recognise the fact that there will be costs attached, which will be passed on to customers. We want reassurance that the scheme achieves the right balance. The Government should monitor the London lane rental scheme, in order to assess its wider application.**

48. Utility companies emphasised the discrepancy between the treatment of work carried out by utilities, and work carried out by local authorities themselves, notably in relation to performance and sanctions. NJUG supported the adoption of an independent road works commissioner, as in Scotland, who is able to penalise both utilities and local authorities for failure to coordinate and cooperate, writing that the commissioner role “has proved to be effective at encouraging a more collaborative approach to reducing disruption”.<sup>89</sup> **The Government should study ways of ensuring that local authorities’ own works on roads are subject to the same rules and penalties as the utility companies’ works, so as to produce the same improvements in reducing disruption. In such circumstances, the Government should explore the possibility of ways of ensuring that resulting fines are not simply a transfer of resources from local authority department to another, rather than being a real incentive to change.**

## Incidents

49. Incidents, in the form of crashes, broken-down vehicles and shed loads, are seen as one of the key sources of unreliability on strategic and local networks. Jack Semple, of the Road Haulage Association (RHA) spoke about the time the police take to investigate road accidents:

We understand that there needs to be a proper investigation when there is an accident, but there needs to be a much clearer idea about the impact that an extended closure has. We would be interested to see what the benefit is that the judicial system and society gets from a major closure against doing the job more quickly, which appears to happen elsewhere in Europe.<sup>90</sup>

A review into the investigation and closure procedures for motorway incidents was carried out by the DfT, the Association of Chief Police Officers (ACPO), the Highways Agency and the Home Office, to investigate how the duration of motorway closures due to incidents could be reduced, in order to keep motorways moving.<sup>91</sup> The review has ten recommendations, including exploring the role of emergency responders and other parties

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88 Ev 29

89 Ev 137

90 Ev 4

91 DfT, *Review of Investigation and Closures Procedures for Motorway Incidents – Preliminary Report*, May 2011

in motorway incidents (other than the police and the Highways Agency), analysing the causes of regional variations, producing more accurate and useful information on delays, producing a collection of case studies and good practice models, exploring the use of technologies in incident management, and providing more police training for on-road and collision investigation. Of particular concern is the significant regional variation of motorway closure, despite the similarity of accident types, due to the regional and national autonomy that police forces have, which results in individuals applying and interpreting procedures differently, and due to a lack of the dissemination and sharing of good practices.<sup>92</sup> The DfT plan to carry out further analysis to help to understand the causes of regional variations by December 2011.<sup>93</sup> The DfT's written evidence stated that "we are committed to ensuring that any improvements identified from the review are taken forward by December 2012."<sup>94</sup> Supplementary evidence submitted by the DfT revised that date and stated that:

The majority of the reviews recommendations are expected to be completed by the end of the year, and we remain on track to deliver on a further business plan commitment to set up and implement measure[s] to reduce congestion by incidents by December 2012.<sup>95</sup>

**50. We support the Highways Agency in its joint initiative with the police and the Home Office, to speed up the time taken to clear major roads, following an incident. We particularly support the Highways Agency's work in analysing the regional variations of motorway closures. The review was published in May 2011, but some of the recommendations will not be taken forward until December 2012. There needs to be continued commitment from all parties, with maintained urgency in addressing all of the outcomes of the review.**

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92 *Ibid*, p20

93 Ev 127

94 Ev 122

95 Ev 127

## 5 The relevance of the *Highway Code* and road user behaviour

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51. The overwhelming view from the evidence we received was that aspects of poor road user behaviour lead to increased congestion, particularly in two key respects. Firstly, by directly causing incidents and accidents, often linked to safety issues; and secondly, by inappropriate road use, which is not necessarily unsafe, but which adversely affects the flow of traffic. Assistant Chief Constable Nick Croft cited road rage, ‘undertaking’ and bad lane discipline as all making incidents and accidents more likely to happen, thereby adversely affecting the general flow of traffic<sup>96</sup> and Nich Brown, of the Motorcycle Action Group gave the example of when vehicle users are told that a two-lane road will narrow into one lane 800 metres ahead, and everyone attempts to get into the open lane at once, instead of filtering alternatively and keeping the traffic flowing.<sup>97</sup> The Minister, Mike Penning MP, said he was concerned about how to ensure that drivers were taught not just to pass a driving test, but to drive responsibly:

Whether it is with young people or older people, they should drive appropriately. Have they been educated? Do they have the skills to do that and does the test produce that for them? My personal view is that at the moment the test is better than it was, but we are still teaching people to pass a test, not giving them skills so that they do not drive inappropriately on our roads.<sup>98</sup>

52. Some of the more innovative local authorities have established road safety policies that highlight road use behaviour. Surrey County Council, for example, highlights its DriveSMART initiative:

We should work with and not against motorists. So our road safety policy focuses more on helping people to be safe rather than on penalising them for unsafe driving. We also work closely with Surrey Police to tackle inconsiderate driving. This includes tackling actions which might not be unsafe but which do annoy or cause distress to residents—for example inconsiderate parking. A couple of years ago we introduced an initiative called DriveSMART as a joint programme with Surrey police. This aims to improve safety and reduce inconsiderate driving mainly by education and encouragement, although we will take enforcement action when justified. DriveSMART includes poster campaigns and advice on good driving.<sup>99</sup>

53. The DfT launched an annual £4 million Road Safety Partnership Scheme, which invites bids from all local highway authorities in England. The scheme promotes joint partnership among road safety professionals, schools, the youth service, the voluntary sector and health sector and encourages the dissemination of best practice across local areas. **Welcome though the Road Safety Partnership Scheme undoubtedly is, we question whether there**

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96 Ev 50

97 Ev 4

98 Ev 67

99 Ev 97

are sufficient funds for highway authorities to take up successful schemes more widely, especially when road safety funds are no longer ring-fenced and local authorities are under financial pressure. Furthermore, we again urge the Government to prioritise work on making the driving test more rigorous, in order to ensure that young drivers are better trained and safer. We made recommendations on this in March of this year and our predecessors also made recommendations in 2007. We are not persuaded that the Government is prioritising this issue and we will return to it in our forthcoming inquiry into the new strategic framework for road safety.

54. The Department publishes the *Highway Code*, which sets out legislation and guidance applying to all road users, including pedestrians and cyclists, as well as motorists. We scrutinised the role that the *Highway Code* could play in improving road user behaviour. The Institute of Highway Engineers argued that there was no problem with the contents of the *Code*, but road users do not always keep up with changes to road signs, guidance on the law after they have passed their driving test and, as a result, “the *Highway Code* is ... largely ineffective as a means of engaging with the vast majority of road users”.<sup>100</sup> It is not only motorists who do not adhere to the *Highway Code*. Majeed Neki of Living Streets told us about the problem of some cyclists’ road behaviour:

We would very much support the role of cycle training and encouraging responsible cycling that meets the interests of all road users, including pedestrians. [...] We recognise there is a minority of cyclists who engage in antisocial cycling behaviour, such as failing to stop at crossings, riding on pavements, etc. We advocate vigorous and renewed enforcement of that, but we also want to see it within the broader picture of conditions on the roads for cyclists and pedestrians.<sup>101</sup>

55. Cadence Driver Development advocated a simplified version of the *Highway Code*:

Much of what is written could be extracted to form additional modules, thereby enhancing the novice driver curriculum and could be used to form a simplified, user-friendly and pocket-sized legal guide, with the emphasis on ‘legal’ as this would assist drivers in knowing their responsibilities. It would be cost-effective to send copies directly to schools, colleges, libraries and local government offices. The general public could receive their copies at the same time as their applications for a Driving Licence or at the time of annual VED [Vehicle Excise Duty] renewal.<sup>102</sup>

Evidence from ITS UK also suggested ways of making the *Highway Code* more relevant:

It needs to be disseminated and generally publicised in a way that it is seen as having direct and immediate relevance on a daily basis. The use of web, ‘podcast’, ‘apps’, and other ‘new media’ should be considered in the dissemination of such messages.<sup>103</sup>

The Driver and Vehicle Licensing Agency (DVLA) website is the first port of call for anyone renewing their car tax disc and for applying or renewing their driving licence.

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100 Ev 107

101 Ev 8

102 Ev 184

103 Ev 83

While there are direct links to sites including 'Direct Gov', 'Think! Road Safety' and the Department's own website, there is no link to the *Highway Code* website. Such a link would be simple to include and would reach a large number of road users.

**56. The Department for Transport should take steps to make the *Highway Code* more readily available to all road users, in particular more experienced drivers and cyclists. The Government should work with the various road user groups to promote better adherence to the *Highway Code*. The DVLA website should clearly link to the *Highway Code*, for all those applying for or renewing a driving licence. A leaflet drawing attention to the Code, highlighting any recent changes, should be posted to drivers with tax disk or licence renewal letters and other correspondence. The Department should consider options for a free *Highway Code* 'App', which gives useful and new information about The Highway Code, and other ways in which new communication media could be utilised for this purpose. These cost-effective recommendations would go a long way to disseminate information included in the *Highway Code* and help improve driver behaviour.**

## 6 Responsibility for managing the road network

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### Current situation

57. The responsibilities and powers of various highways authorities are set out in the Highways Act 1980 (broadly covering the maintenance and improvement of the roads), the Road Traffic Regulation Act and Road Traffic Acts (managing the use of roads), and the New Roads and Street Works Act (managing works taking place in roads, in particular those by utility companies). The Traffic Management Act 2004 (TMA) provided the legal basis for traffic officers who have powers relating to the management of traffic on the Highways Agency's roads, and, as we have seen, gave additional powers and duties to local traffic authorities to increase their role in the practical management of their highways.

58. The divisions of responsibility outlined above do not reflect the way that roads are used and problems exist when a major road is managed by several authorities. Major roads provide an end-to-end service, and a highway authority will usually have a consistent approach in managing and improving such a road, both along its length and at its junctions with the more local roads, to ensure that it can be used safely and to avoid congestion wherever possible. However, where a road is split between different authorities, there will not necessarily be a consistent strategy for the whole route. Each authority can set its own priorities that could put their local interests above the wider national or regional good. Such a piecemeal approach, both to managing and improving the network, could have adverse safety and efficiency consequences. Ian Reeve told us of such difficulties in managing the road network in Surrey:

Surrey is in a unique position. We have a very large portion of the motorway network. A third of the M25 runs through Surrey. Nearly half of our traffic is on motorways and trunk roads, which is much higher than the average. The motorway and trunk road network is very important to us and we know it causes problems on the local road network.<sup>104</sup>

59. Congestion does not respect administrative boundaries. Robin Shaw, of the Chartered Institution of Highways and Transportation (CIHT), described the incongruity between the Highway Agency's mandate to maintain only the strategic road network and most people's daily journey requirements, which cover more than the strategic road network.<sup>105</sup> Professor Blythe, from the Institute of Engineering and Technology (IET) said there needed to be

a more strategic view of connecting the whole road network together, ensuring that we have more seamless travel and use the best possible technologies and other techniques to manage congestion and the discontinuities in our road networks.<sup>106</sup>

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104 Ev 44

105 Ev 44

106 Ev 44

60. The A46 is an example of a main road with different managing authorities: it runs between Bath, Somerset, and Cleethorpes, North East Lincolnshire, although parts of the old road have been bypassed or replaced by motorway development. Three sections of the road are classified as trunk roads and are managed by the Highways Agency but the other sections are the responsibility of several local authorities.<sup>107</sup> Many local authorities do not have the finances or expertise on their own to carry out sophisticated transport planning and the implementation of significant traffic management schemes. James Coates, from the Chartered Institute of Logistics and Transport UK (CILT UK) told us:

[A] lot of local authority areas are far too small for sensible transport planning, which is what congestion relief is partly depending on. You need sensible arrangements at sub-regional level, and we have to hope that the Local Enterprise Partnerships (LEPs) and the local authorities will work together and that in some of the big cities they will use the powers to create integrated transport authorities and so on, but we wait to see.<sup>108</sup>

61. This concern about how the management of major routes covering several authorities would be dealt with in the absence of regional planning mechanisms, was also raised by Stephen Glaister of the RAC Foundation:

There are a very large number of very large roads which, for funding purposes, do not come under the direct control of the Highways Agency. If I give you an example, the A12 is a major road going from the boundary of London all the way up to the ports at Felixstowe and Harwich. That road was, for funding purposes, the responsibility of the East of England Regional Development Agency (RDA). I am entirely unclear about what is going to happen about the accountability on that road, we surely can't expect the local communities through which it goes to deal with the proper stewardship of that major highway. I think that kind of thing is repeated all over the country.<sup>109</sup>

62. The Government appears not to have an answer to this problem in its evidence, but wrote in general terms that “the Government is placing localism at the heart of the transport agenda, and taking measures to empower local authorities when it comes to tackling these issues in their areas”.<sup>110</sup> There are certainly benefits in local authorities working together and there are processes in place that facilitate the uptake of good practice, such as the national and regional traffic manager forums. However, as Phil Blythe, from the Institute of Engineering and Technology, told us, the Government needs to take a more proactive approach for localism to work:

Localism is fine. It allows the local authorities that are proactive and have expertise in-house to go away and do some great things, but it leaves a large proportion of the

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107 HC Deb, 5 July 2011, col1163w

108 Ev 12

109 Ev 12

110 Ev 121



local authorities as also-rans who really do not have the capacity, capability or knowledge to take up those benefits. They are the ones that will suffer.<sup>111</sup>

The Local Transport White Paper, published in January 2011, refers to the role of Local Enterprise Partnerships (LEPs) identifying strategic transport priorities across their areas, engaging with, among others, the Highways Agency and the DfT:

We are inviting LEPs immediately to demonstrate their potential to play a positive strategic role by engaging with local transport authorities and partnering bids to the Local Sustainable Transport Fund [...] The Department of Transport will seek to work directly with a small number of Local Enterprise Partnerships towards agreeing a joint approach to the worst congestion hotspots in the major urban areas affecting both the local and national strategic networks within the Local Enterprise Partnership area.<sup>112</sup>

63. Tension can exist because, in making their own transport decisions, highway authorities can have adverse consequences on congestion experienced by other highway authorities. This is most likely in conurbations where the local roads can run across several authorities and the Highways Agency network can itself run through the area, creating a closely interlinked network. Congestion is a strategic problem that can only be tackled effectively if roads management authorities work together. In our report on the winter weather in 2010 we recommended that local authorities should share their transport winter resilience plans in draft to ensure that resilience issues are managed strategically.<sup>113</sup> We have seen in this inquiry that this principle of collaboration should extend to other aspects of road and traffic management. The written evidence from Urban Traffic Management and Control noted that there are some successful partnerships between authorities, in particular “authorities with a historical connection (Kent/Medway, Hampshire/Southampton/Portsmouth, Dorset/Poole, etc), and authorities in a metropolitan area, for public transport (where the Passenger Transport Executive can lead/coordinate)”.<sup>114</sup> However, these successful partnerships are few and far between and the DfT still needs to clarify how regional transport priorities will be resolved. Our previous Report, *Transport and the Economy*, highlighted the Prime Minister’s response to questioning about regional planning arrangements by our Chair, Louise Ellman MP, during a meeting of the Liaison Committee:

He agreed to take a personal interest in ensuring that regional perspectives and regional prioritisation regarding transport were not lost as a result of the changes.<sup>115</sup>

**64. We recommend that the DfT should be more proactive in ensuring that highway authorities work together to manage the road network. Indeed, the Prime Minister agreed to take a personal interest in ensuring that regional perspectives are maintained.**

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111 Ev 45

112 Department for Transport, *Creating Growth, Cutting Carbon: making sustainable local transport happen*, Cm 7996, January 2011, p 27

113 Transport Committee, Fifth Report of Session 2010-11, *Keeping the UK moving: The impact on transport of the winter weather in December 2010* Transport Select Committee, HC 794, para 41

114 Ev 75

115 Transport Committee, Third Report of Session 2010-11, *Transport and the Economy*, HC 473, para 110

**Working with the Local Government Association and other relevant institutions—such as the Chartered Institution of Highways and Transportation (CIHT), the Chartered Institute of Logistics and Transport (CILT) and the Institute of Highway Engineers (IHE)—it should ensure that best practice, in the way local authorities manage the impact of their road management decisions on surrounding areas, is collated. Such information could be published online, to inform local authorities and to facilitate the exchange of best practice between them. The DfT cannot wash its hands of the strategic management of the road network by simply devolving that responsibility to new and untested Local Enterprise Partnerships.**

### **Alternative approaches**

65. Capita Symonds proposed that there should be a “Managed Route Network”, formed from the strategic road network operated by the Highways Agency and a significant number of the more important all-purpose roads managed by local authorities. The approach would include two strands of congestion relief measures—road and traffic management, and influencing behaviour—which are described in the firm’s written evidence. Capita Symonds stated that this new approach “means abandoning many historically based policies and the thinking behind them, but there is strong evidence to show this will save money and deliver wide ranging benefits”.<sup>116</sup>

66. Part 2 of the Local Transport Act 2008 already enables Integrated Transport Authorities (these are the former Passenger Transport Executive in the six metropolitan areas, but ITAs can also be created by groups of other authorities) to modify governance arrangements within their areas. For example, the constituent authorities could effectively pool some of their road and traffic management powers and delegate them to the Integrated Transport Authority, although this would still not bring the Highways Agency’s network under the same umbrella.

**67. We can see some benefits in Capita Symonds’ “Managed Route Network” proposal, but we envisage there being significant governance issues in separating the ownership and management of a local road and in agreeing who would manage (and provide finance for) such a network. We recommend that a working party should be formed, composed of the Government, the Highways Agency, representatives from local authorities, including ITAs and the private sector, to make recommendations to Ministers about how to establish a broader managed network, in order to tackle road congestion more efficiently than is possible today.**

68. One attempt to bring about a more unified traffic management system within the current framework is demonstrated by an innovative project set up by the DfT, the Highways Agency and Surrey County Council. The Integrated Demand Management project is designed to co-ordinate the traffic management of the national road network, principally the M25, and the corresponding local road network. Surrey’s written evidence describes the potential impact of the project:

If successful, this demonstration project would deliver a low-cost toolkit of traffic management measures which could be applied more widely across the country.<sup>117</sup>

As a consequence of the Spending Review 2010, the Integrated Demand Management project has not yet secured ongoing funding and is on hold, pending further discussions. Iain Reeve, from Surrey County Council, told us of the current position of the scheme:

We are in dialogue with the Department for Transport at the moment to see if we can resurrect it, particularly if we can make it a cheaper project because we recognise there are funding difficulties, but we believe this area is absolutely crucial. [...] The project as it was before was £25 million to £40 million, which I do not think is affordable. What we are looking for is something rather cheaper.<sup>118</sup>

**69. We urge the Government to take up this opportunity to fund Surrey County Council and the Highways Agency's joint working partnership, with their revised Integrated Demand Management scheme. There is a good case to be made for such funding—provided that the promoters can show that the scheme is delivering a measurable and cost-effective impact on congestion—not least in encouraging other local authorities to work in a collaborative way with the Highways Agency and the DfT. The DfT must prove that it is fulfilling its leadership and co-ordinating role, and financial support for this initiative would be a positive application of that role.**

## The Highways Agency

70. As part of the spending review settlement, the Secretary of State has commissioned an independent review of the Highways Agency, which will study its effectiveness, efficiency and performance measurement. Of particular relevance to this inquiry is the fact that it will look specifically at the better management of traffic congestion and traffic incidents by the Agency. The review is to be led by Alan Cook, the non-executive Chairman of the Highways Agency Board, and his findings will be presented to the Secretary of State in October.

71. The question of better collaboration between the Highways Agency and local highway authorities has already been mentioned and was one that recurred during our inquiry. Graham Dalton, Chief Executive of the Highways Agency, told us about the work the Highways Agency does with local authorities, not just on immediate transport issues, but in long-term planning, which has consequences for traffic flow:

[I]t is around the planning regime and meeting long-term planning and the role that the Agency has in consultation with local authorities, previously with regional assemblies, and hopefully with LEPs once they are established, on guiding and shaping development, because motorway junctions especially and trunk road junctions are very attractive places for developers to put in either commercial or retail development.<sup>119</sup>

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117 Ev 97

118 Ev 37

119 Ev 48

He also talked about discussions that the Highways Agency and local authorities have on agreeing planning consents to encourage alternative transport, such as bus services to serve out-of-town business parks.<sup>120</sup>

**72. The DfT must ensure that it maintains its role as the strategic overseer of the road network. The Government review of the Highways Agency should consider the Agency's role in assisting and supporting local highway authorities, making the most of the Agency's knowledge and experience. This could include sharing best practice on the management of major roads, including access to available technology, the impact on roads of planning decisions, and collaborating in research and supporting the development of common technical standards. The review should also look at how the Highways Agency's collaboration with local authorities can be improved, in order to integrate more comprehensively the management of the road network as a whole.**

## 7 Conclusion

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73. Congestion costs the economy billions of pounds every year. It is not restricted to specific roads at certain times, but can happen on any road, at any time of the day. It can be very localised, or can involve the strategic road network, and different contexts require different strategies of road management. In general, although there is little appetite for more legislation to reduce congestion, there were calls for the existing legislation to be used more effectively and for the remaining parts of the Traffic Management Act to be implemented. In 2004, the Traffic Management Act was expected to promote a change in culture in local authorities' approaches to road and traffic management. There has been some change but, seven years on, the picture remains patchy: there are examples of improved practice, but also plenty of room for improvement. Now is an opportunity for the Government to reiterate the message about proactive, comprehensive and coordinated traffic and network management that underpins the Act.

74. There is a risk, particularly with staff being shed by central and local government, of expertise in road and traffic management, particularly in Intelligent Traffic Management and the use of new technology, being lost. There is a considerable level of interest and commitment to better road and traffic management among the professional institutions, industry and interest groups but this requires leadership and coordination from the centre. Implementing our recommendations would require modest investment in this area, but this would be a small price to pay for helping to reduce congestion while leaving the management of local roads in the hands of local authorities. The current review of the Highways Agency provides the Government with an opportunity to achieve this.

75. Many of our recommendations are about ensuring local highway authorities co-operate with each other, and with the Highways Agency, in ensuring that the road network is managed effectively as a single entity, rather than as a patchwork of hundreds of isolated units. The DfT has a crucial role as a strategic overseer, promoting and disseminating examples of good practice and ensuring that local authorities undertake their road and traffic management functions successfully. The Government is looking to the Local Government Association (LGA) to do more in this respect, and as this is a new role for the LGA in this field, the Government should work with the association in the initial stages, to help it develop that role.

76. We have also indicated how the Government could do more—much more—to improve driver behaviour, particularly by making the driving test more rigorous and publicising the *Highway Code* and the TP traffic information button on car radios more effectively. Tackling congestion involves a range of actions, many of which depend on local authorities to implement, but central Government has the primary responsibility for demanding and achieving improvements. As in many other transport contexts, the current Government's commitment to localism must not provide a pretext for the DfT to abnegate this responsibility.

## Conclusions and recommendations

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### Maximising the capacity of existing road space

1. Our recent inquiry, *Bus Services after the Spending Review*, concluded that bus services are an important and valued form of transport for many people, enabling them to participate in employment, education and voluntary services, and to access health services and shops. Bus lanes are an important means of supporting local transport, and if well designed, bus priority measures can also make a substantial difference to our congested roads. (Paragraph 10)
2. We recommend that the Government publish early next year a detailed assessment of traffic flow on the M4 in the year since the bus lane was scrapped. If the evidence shows that the bus lane contributed to faster movement—taking account of all travellers—it should be reinstated. (Paragraph 13)
3. We can see no reason why Part 6 of the Traffic Management Act 2004 should not be fully commenced to enable local authorities to deal more effectively with moving traffic contraventions and we recommend that the Government bring this part of the Act into force, by 2013. (Paragraph 16)
4. We agree with the Government that the ‘managed motorways’ approach should be implemented on other parts of the strategic road network, but are realistic in recognising that the approach may not alleviate the whole problem of congestion. Also, we share concerns with the police about safety on stretches of motorway where junctions are widely spaced and where the use of the hard shoulder by motorists could prevent emergency vehicles from reaching accidents. The Government needs to address how to manage congestion on stretches of motorway where the ‘managed motorway’ approach might not be appropriate. In addition, we expect the Government to monitor the effectiveness of the managed motorway approach as it is extended more widely, with particular reference to cost and safety issues. (Paragraph 21)

### Information

5. The Government clearly has a role to play in working with highway authorities to identify the latest forms of intelligent traffic management systems and how such systems can be used effectively and promoting joint procurement projects, principally through bodies such as the UTMC Development Group. We are disappointed, therefore, that the main means by which local authorities could identify suitable intelligence traffic management options, the ITS Toolkit, is now unfunded. In the absence of an up-to-date ITS Toolkit best practice is likely to be lost, and local authorities will be less likely to benefit from Intelligent Traffic Management schemes in helping to tackle congestion. The very nature of ITS, the need to maximise value for money and the need to make the most of limited, skilled resources make coordination between local authorities especially important. We recommend that the Government should renew its funding of the ITS Toolkit, or a successor project aimed at assisting highway authorities in identifying and procuring

the most up-to-date and appropriate intelligent traffic management systems and in accessing available technology. The Government should work more closely with those involved in Intelligent Traffic Management systems, including the Highways Agency and local authorities, to ensure that there is greater collaboration and sharing of best practice. (Paragraph 25)

6. Highway authorities are legally obliged to monitor how they perform their traffic management functions: however, most fail to do so. This is an unacceptable situation which the DfT must address. The DfT should be more proactive in calling on local authorities to publish their traffic management performance measurements. We recommend that the Government require all highway authorities to publish traffic management performance measurements, by the beginning of 2013 at the latest. (Paragraph 29)
7. We recommend that a leaflet should be sent to drivers, when they apply for their tax disc or driving licence, to highlight existing sources of detailed travel information—including information provided by the Highways Agency—and to remind drivers to use the ‘traffic programme’ (TP) button, which cuts into the radio to give accurate, up-to-date travel information. (Paragraph 31)
8. The DfT should: decide what real-time travel information should be made available from local authorities and the Highways Agency to motorists and what should be provided by the private sector; identify barriers to collating and disseminating information; and develop a strategy for delivering that information, including the route for overcoming those barriers and the scope for public/private collaboration on deployment, giving examples of best practice. (Paragraph 34)

### **Minimising the number and impact of events on our roads**

9. Useful work is being undertaken to develop and promote good practice in minimising the number and impact of road and street works. We recommend that the DfT, working with the Highway Authorities and Utilities Committee (HAUC), should ensure that examples of best practice are disseminated to highway authorities and utility companies. (Paragraph 37)
10. The Government should commission an independent assessment of the London and Kent permit schemes, as was agreed by the previous Government. This assessment should assess whether the initial permit schemes are following the right approach and make recommendations about improvements, in order to inform other local authorities considering implementing their own permit schemes. The Government should also put in place arrangements to monitor the uptake of permit schemes and the variations between local authorities’ approaches. (Paragraph 43)
11. Our predecessors were not convinced about the merits of lane rentals, and we are yet to be convinced that the scheme is the best way of tackling congestion from street works. We recognise the potential of lane rental to target more directly changes in the behaviour of utility companies, which will potentially reduce disruption. However, we also recognise the fact that there will be costs attached, which will be passed on to customers. We want reassurance that the scheme achieves the right

balance. The Government should monitor the London lane rental scheme, in order to assess its wider application. (Paragraph 49)

12. The Government should study ways of ensuring that local authorities' own works on roads are subject to the same rules and penalties as the utility companies' works, so as to produce the same improvements in reducing disruption. In such circumstances, the Government should explore the possibility of ways of ensuring that resulting fines are not simply a transfer of resources from local authority department to another, rather than being a real incentive to change. (Paragraph 48)
13. We support the Highways Agency in its joint initiative with the police and the Home Office, to speed up the time taken to clear major roads, following an incident. We particularly support the Highways Agency's work in analysing the regional variations of motorway closures. The review was published in May 2011, but some of the recommendations will not be taken forward until December 2012. There needs to be continued commitment from all parties, with maintained urgency in addressing all of the outcomes of the review. (Paragraph 50)

### The relevance of the *Highway Code* and road user behaviour

14. Welcome though the Road Safety Partnership Scheme undoubtedly is, we question whether there are sufficient funds for highway authorities to take up successful schemes more widely, especially when road safety funds are no longer ring-fenced and local authorities are under financial pressure. Furthermore, we again urge the Government to prioritise work on making the driving test more rigorous, in order to ensure that young drivers are better trained and safer. We made recommendations on this in March of this year and our predecessors also made recommendations in 2007. We are not persuaded that the Government is prioritising this issue and we will return to it in our forthcoming inquiry into the new strategic framework for road safety. (Paragraph 53)
15. The Department for Transport should take steps to make the *Highway Code* more readily available to all road users, in particular more experienced drivers and cyclists. The Government should work with the various road user groups to promote better adherence to the *Highway Code*. The DVLA website should clearly link to the *Highway Code*, for all those applying for or renewing a driving licence. A leaflet drawing attention to the Code, highlighting any recent changes, should be posted to drivers with tax disk or licence renewal letters and other correspondence. The Department should consider options for a free *Highway Code* 'App', which gives useful and new information about The Highway Code, and other ways in which new communication media could be utilised for this purpose. These cost-effective recommendations would go a long way to disseminate information included in the Highway Code and help improve driver behaviour. (Paragraph 56)

### Responsibility for managing the road network

16. We recommend that the DfT should be more proactive in ensuring that highway authorities work together to manage the road network. Indeed, the Prime Minister agreed to take a personal interest in ensuring that regional perspectives are



maintained. Working with the Local Government Association and other relevant institutions—such as the Chartered Institution of Highways and Transportation (CIHT), the Chartered Institute of Logistics and Transport (CILT) and the Institute of Highway Engineers (IHE)—it should ensure that best practice, in the way local authorities manage the impact of their road management decisions on surrounding areas, is collated. Such information could be published online, to inform local authorities and to facilitate the exchange of best practice between them. The DfT cannot wash its hands of the strategic management of the road network by simply devolving that responsibility to new and untested Local Enterprise Partnerships. (Paragraph 64)

17. We can see some benefits in Capita Symonds’ “Managed Route Network” proposal, but we envisage there being significant governance issues in separating the ownership and management of a local road and in agreeing who would manage (and provide finance for) such a network. We recommend that a working party should be formed, composed of the Government, the Highways Agency, representatives from local authorities, including ITAs and the private sector, to make recommendations to Ministers about how to establish a broader managed network, in order to tackle road congestion more efficiently than is possible today. (Paragraph 67)
18. We urge the Government to take up this opportunity to fund Surrey County Council and the Highways Agency’s joint working partnership, with their revised Integrated Demand Management scheme. There is a good case to be made for such funding—provided that the promoters can show that the scheme is delivering a measurable and cost-effective impact on congestion—not least in encouraging other local authorities to work in a collaborative way with the Highways Agency and the DfT. The DfT must prove that it is fulfilling its leadership and co-ordinating role, and financial support for this initiative would be a positive application of that role. (Paragraph 69)
19. The DfT must ensure that it maintains its role as the strategic overseer of the road network. The Government review of the Highways Agency should consider the Agency’s role in assisting and supporting local highway authorities, making the most of the Agency’s knowledge and experience. This could include sharing best practice on the management of major roads, including access to available technology, the impact on roads of planning decisions, and collaborating in research and supporting the development of common technical standards. The review should also look at how the Highways Agency’s collaboration with local authorities can be improved, in order to integrate more comprehensively the management of the road network as a whole. (Paragraph 72)

# Formal Minutes

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**Tuesday 6 September 2011**

Members present:

Mrs Louise Ellman, in the Chair

Steve Baker  
Jim Dobbin  
Mr Tom Harris  
Julie Hilling  
Kwasi Kwarteng

Mr John Leech  
Paul Maynard  
Iain Stewart  
Graham Stringer  
Julian Sturdy

Draft Report (*Out of the jam: reducing congestion on our roads*), proposed by the Chair, brought up and read.

*Ordered*, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 76 read and agreed to.

Summary agreed to.

*Resolved*, That the Report be the Ninth Report of the Committee to the House.

*Ordered*, That the Chair make the Report to the House.

*Ordered*, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

Written evidence was ordered to be reported to the House for placing in the Library and Parliamentary Archives.

[Adjourned till tomorrow at 9.30 am

## Witnesses

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### Tuesday 29 March 2011

Page

**Hugh Noblett**, Head of Training, Cadence Driver Development, **Nich Brown**, General Secretary, Motorcycle Action Group (MAG), and **Jack Semple**, Director of Policy, Road Haulage Association Ev 1

**Robin Heydon**, Officer, Cambridge Cycling Campaign, **Christopher Peck**, Policy Co-ordinator, CTC, the national cyclists' organisation, and **Majeed Neki**, People and Places Campaign Coordinator, Living Streets Ev 6

**Mark Kemp**, senior member, Transport Committee, ADEPT, **James Coates**, member of Public Policies Committee, Chartered Institute of Logistics and Transport in the UK (CILT), **Stephen Glaister**, Director, RAC Foundation, and **Nick Reed**, Senior Human Factors Researcher, Transport Research Laboratory Ev 11

### Tuesday 10 May 2011

**David Brown**, Director General of South Yorkshire PTE, pteg, and **Peter Nash**, Policy Adviser, Stagecoach Ev 18

**Dave Turnbull**, Legal Director, National Joint Utilities Group, **John Pettigrew**, Chief Operating Officer of UK Gas Distribution, National Grid, and **Roger Culpin**, Chair, Joint Authorities Group Ev 23

**Simon Beasley**, Chair, Urban Traffic Management and Control, **Andy Graham**, Chair, Co-operative Vehicle Highways Interest Group, Intelligent Transport Society, and **Anthony Sharp**, Former President, Institute of Highway Engineers Ev 30

### Tuesday 7 June 2011

**Paul Watters**, Head of Public Affairs, AA, **Iain Reeve**, Head of Strategy, Transport and Planning Services, Surrey County Council, and **Malcolm Bingham**, Head of Road Network Management Policy, Freight Transport Association Ev 36

**Professor Phil Blythe**, Chair, Transport Policy Panel, Institute of Engineering and Technology, **Robin Shaw**, Chairman of Learned Society, Chartered Institution of Highways and Transport, and **Mike Mackinnon**, Director, Capita Symonds Ev 43

**Graham Dalton**, Chief Executive and **Simon Sheldon-Wilson**, Director of Traffic Management, Highways Agency and **Assistant Chief Constable Nick Croft**, South Wales Police, the Association of Chief Police Officers (ACPO) Ev 47

## Tuesday 14 June 2011

**Garrett Emmerson**, Chief Operating Officer, London Streets, Transport for London, and **Nick Lester**, Corporate Director of Services, and **Cllr Catherine West**, Chair, Transport and Environment Committee, London Councils Ev 54

**Mike Penning MP**, Parliamentary Under-Secretary of State, and **Norman Baker MP**, Parliamentary Under-Secretary of State, Department for Transport Ev 61

## List of printed written evidence

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1	Urban Traffic Management & Control Development Group (UDG)	Ev 73
2	Joint supplementary evidence from the UDG and IHE	Ev 77
3	Intelligent Transport Society (ITS (UK))	Ev 80, Ev 86
4	Transport Research Laboratory (TRL)	Ev 93
5	Surrey County Council	Ev 96, Ev 97
6	ADEPT	Ev 98
7	Cambridge Cycling Campaign	Ev 100
8	Institute of Highway Engineers (IHE)	Ev 103
9	Passenger Transport Executive Group (pteg)	Ev 108, Ev 111
10	RAC Foundation	Ev 113
11	Chartered Institution of Highways and Transport (CIHT)	Ev 116
12	Department for Transport	Ev 119, Ev 124
13	National Grid plc	Ev 127, Ev 134
14	National Joint Utilities Group (NJUG)	Ev135, Ev 141
15	Stagecoach Group plc	Ev 145
16	Road Haulage Association	Ev 148
17	Capita Symonds	Ev 150
18	Chartered Institute of Logistics and Transport (CILT)	Ev 154, Ev 158
19	Institution of Engineering and Technology	Ev 159
20	AA	Ev 162
21	Joint Authorities Group (UK)	Ev 165
22	CTC, the national cyclists' organisation	Ev 170
23	Freight Transport Association (FTA)	Ev 173
24	Living Streets	Ev 175
25	Motorcycle Action Group (UK)	Ev 178
26	Cadence Driver Development	Ev 181
27	Greater London Authority	Ev 186
28	Association of Chief Police Officers	Ev 191
29	London Councils	Ev 193

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## List of additional written evidence

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(published in Volume II on the Committee's website [www.parliament.uk/transcom](http://www.parliament.uk/transcom))

1	Leonard Wells	Ev w1
2	David Nelsey	Ev w2
3	English Heritage	Ev w3
4	Ken Todd	Ev w3
5	David Metz	Ev w7
6	London TravelWatch	Ev w8
7	Passenger Focus	Ev w14
8	Martin Cassini	Ev w17
9	Campaign for Better Transport	Ev w17
10	<i>liftshare</i>	Ev w21
11	Motor Industry Research Association (MIRA)	Ev w23
12	Local Government Technical Advisers Group (TAG)	Ev w24
13	Network Rail	Ev w29
14	Kapsch TrafficCom	Ev w30
15	Michael Coles	Ev w33
16	Green Light Group (GLG)	Ev w36
17	Donald Bowler	Ev w38
18	Stephen Plowden	Ev w39
19	City of London Corporation	Ev w41
20	Jonathan Smith	Ev w43
21	Tony Wyer	Ev w44
22	Transport Planning Society	Ev w44
23	Halcrow	Ev w48
24	Chris Leithead	Ev w53
25	Sustrans	Ev w55
26	Motor Cycle Industry Association (MCI)	Ev w61
27	Cycle Sheffield	Ev w65
28	Nottinghamshire County Council	Ev w65

## List of unprinted evidence

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The following written evidence has been reported to the House, but to save printing costs has not been printed and copies have been placed in the House of Commons Library, where they may be inspected by Members. Other copies are in the Parliamentary Archives ([www.parliament.uk/archives](http://www.parliament.uk/archives)), and are available to the public for inspection. Requests for inspection should be addressed to The Parliamentary Archives, Houses of Parliament, London SW1A 0PW (tel. 020 7219 3074; email [archives@parliament.uk](mailto:archives@parliament.uk)). Opening hours are from 9.30 am to 5.00 pm on Mondays to Fridays.

- 1 Additional material from Michael Coles
- 2 Enclosures from Tony Wyer

## List of Reports from the Committee during the current Parliament

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### Session 2010–12

Ninth Report	Out of the jam: reducing congestion on our roads	HC 872
Eighth Report	Bus Services after the Spending Review	HC 750
Seventh Report	Taxis and private hire vehicles: the road to reform	HC 720
Sixth Report	The Coastguard, Emergency Towing Vessels and the Maritime Incident Response Group	HC 948
Fifth Report	Keeping the UK moving: The impact on transport of the winter weather in December 2010	HC 794
Fourth Report	The cost of motor insurance	HC 591
Third Report	Transport and the economy	HC 473
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# Oral evidence

## Taken before the Transport Committee

on Tuesday 29 March 2011

Members present:

Mrs Louise Ellman (Chair)

Jim Dobbin  
Mr Tom Harris  
Kwasi Kwarteng

Mr John Leech  
Paul Maynard  
Iain Stewart

### Examination of Witnesses

*Witnesses:* **Hugh Noblett**, Head of Training, Cadence Driver Development, **Nich Brown**, General Secretary, Motorcycle Action Group, and **Jack Semple**, Director of Policy, Road Haulage Association, gave evidence.

**Q1 Chair:** Good morning, gentlemen, and welcome to the Transport Select Committee. Would you please give your name and the organisation you are representing for our records? I will start at the end here.

**Hugh Noblett:** Hugh Noblett, Cadence Driver Development.

**Nich Brown:** Nich Brown, Motorcycle Action Group.

**Jack Semple:** Jack Semple, Road Haulage Association.

**Q2 Chair:** Thank you. What would you say are the main causes of congestion and how does congestion affect the members of your organisation? Who would like to start on that one?

**Hugh Noblett:** If I may start, possibly, it is the problems of driver behaviour and a lack of knowledge, possibly, of the Highway Code practice which is the main problem. We were on the motorway yesterday and there was a gantry sign saying "Please do not hog the middle lane", and yet almost every driver apart from us was ignoring it, which was causing problems to all other road users.

**Q3 Chair:** Mr Brown, would you like to tell us what you think are the main causes of congestion?

**Nich Brown:** In our opinion, the main cause is simply the volume of independent travel that is undertaken by vehicles that are larger than necessary for a trip. Whereas we understand that not everybody has a choice of vehicle to use, because the statistics show us that most car journeys have less than two people in the car, that is a lot of road space that is being used not necessarily for any good purpose.

It affects our members in two respects. First, with motorcycles, because they are very manoeuvrable vehicles, which take up a lot less road space and are able to use parts of the road that other vehicles are not necessarily using, it means that we are able to percolate through the traffic reasonably well. It is the higher level of risk that is caused to us through volumes of larger vehicles, especially where those larger vehicles don't have good visibility for the driver, whether it is a car with large A-pillars obscuring the view ahead or a goods vehicle where, because it has a solid trailer, it is not able to see all the way round it. Our members have to be very

conscious of where they position in the road so that they can be seen.

**Jack Semple:** I would say it is the volume of traffic for the available road space, particularly the number of cars on the road. If you look at the 34 million vehicles, most of them are cars. It is the time when people travel, particularly again cars, and the way we have structured aspects of the economy.

Looking at the existing infrastructure, the number of accidents we have obviously has a big impact on the predictability of journeys and the amount of time on major roads that it takes for the police to clear an accident, if it is a major incident. In urban areas, in particular, there is frustration at the extent of roadworks and the congestion that that adds.

Also, we are getting more and more concerned about the local plans and the creeping reduction in available road capacity. In terms of roadworks and road maintenance, I think the deterioration of the road network condition, particularly in local roads, is storing up some real problems of congestion for the future.

**Q4 Chair:** Is congestion affecting UK competitiveness?

**Jack Semple:** From my members' point of view, undoubtedly. I don't think the congestion has deteriorated. It may even have eased slightly in the last couple of years with the recession. But, for example, just to take London, we have members who would say that a medium-sized lorry in the school holidays probably does about £100 to £120 more productive work simply because of the reduction in congestion that exists in London because of the school holidays. We don't take goods down to a baseline of no congestion, but if you factor in the major and predictable congestion, that adds fuel cost, driver cost and vehicle cost. In terms of just the road haulage industry and transport of freight, a huge amount of costs is a result of predictable congestion and it affects the cost of moving goods in the UK.

**Q5 Chair:** The Government have said that they are considering a lorry road user charge scheme. Are you aware of exactly what is being proposed?

**Jack Semple:** We have an idea.

**Q6 Chair:** Is there anything you can tell us about it? Do you think it will be effective?

**Jack Semple:** I think it will make little difference to congestion.

**Q7 Chair:** Did you say “a little” or “little”?

**Jack Semple:** Little.

**Q8 Chair:** “A little”?

**Jack Semple:** Little, if any, difference to congestion. I think it will make no discernible difference to congestion. The lorry road user charge will exist primarily to impose a charge on foreign trucks for using our roads and to make the tax difference between foreign trucks and UK trucks a little more even. I think that is the purpose of what the Government has in mind. So, in terms of congestion, it will do little. Actually, I am not sure that any form of charge would do a great deal, because the lorries are there to provide a service to business and you don't run a lorry, in London for example, unless you have good reason to do so.

**Q9 Iain Stewart:** I noticed in Mr Noblett's recent evidence that one option you suggest for alleviating congestion is to improve traffic light phasing to ease flow rather than obstructing it. In urban areas, do you think that, on average, the current phasing of traffic lights does hinder and cause congestion?

**Hugh Noblett:** I think it does.

**Q10 Iain Stewart:** You think at the moment it does.

**Hugh Noblett:** I think it would assist traffic flow to get the light phasing right and possibly vary it, depending upon the traffic flow and the time of day. Maybe overnight deliveries might assist. Certainly, overnight deliveries might well reduce the daytime congestion, obviously with the heavy lorries. I find personally that, certainly in the rural areas, where lorries are restricted through the speed limit and the laws, you get somebody overtaking very slowly and then you get a build-up of congestion behind those lorries. Obviously, they have delivery time problems as well as delivery times in the suburban areas. I think traffic light phasing might well assist. I am not saying it is the entire answer, but I think it might help.

**Q11 Paul Maynard:** This is a question addressed to Mr Semple. Listening to all three witnesses so far, you have clearly been keen to point out how different modes of transport dominate or utilise road space. In the case of Mr Semple, I was interested by your statistic about how there were 35 million vehicles, of which only a small minority were HGVs. Can I just probe that a little further? Thinking of the bottlenecks on our motorway network, what proportion of traffic using a bottleneck at peak hour, in your view, would be HGV versus passenger vehicles?

**Jack Semple:** It depends very much on the location and the bottleneck. It is very hard to generalise on that. In some areas it will be greater than others. The industry does what it can to avoid bottlenecks, particularly on the motorway network. But one point I would highlight is that the HGV is at work, doing its work, whereas the car driver is going

to and from work, so he has a very much more period-specific movement. The truck is on the road for up to nine or even 10 hours a day doing its job, and it may be that it has no alternative but to be on the road at that time to get from one place to another.

**Q12 Paul Maynard:** Would you agree, though, that one of the major delays motorists find or one of the frustrations they experience is when they are travelling along, say, a three-lane motorway and there are two lorries going at 50 mph or 51 mph, one slowly overtaking the other, causing quite a long backlog very quickly on some of our high density motorways? Would you agree that that is an observable problem?

**Jack Semple:** I am not sure that I would describe it as a problem particularly on motorways. I think it is an issue. One of the lorries is likely to be doing 56 mph because that is the governed speed of the truck. You have a lot of long-term roadworks where the Highways Agency controls the traffic speed at about 50 mph. The traffic moves efficiently in terms of the volume of traffic moving through the roadworks and there would be an argument for saying that that is the case also on motorways without roadworks.

Having said that, to have a truck pulling out and staying running parallel when he is doing the same speed as the truck in the inside lane is not acceptable, particularly on roads such as the A14, where you have a dual carriageway. We are very strongly opposed to that. It is not acceptable for a driver to run parallel to the driver inside. Quite often, it is a foreign driver, but quite often it is also a UK driver. We are urging, and we are again going to be urging, our members to make sure that drivers don't do that. It is a small minority, most of the time, on dual carriageway roads.

**Q13 Paul Maynard:** How could that be stopped? Is that self-discipline?

**Jack Semple:** I think it is industry discipline. We have to get to the stage where it is unacceptable in the haulage industry for that to happen.

**Q14 Mr Leech:** How important are speed limits in increasing or decreasing congestion, and is it the speed limit or is it people's lack of adherence to the speed limit that causes the congestion?

**Hugh Noblett:** If I may answer this one, I think it is a variable system. In my work, the big issue is that, yes, you require speed limits to control society to a certain extent. But, of course, if you find an empty set of roadworks and you have a 50 mph zone on it, then, of course, people are going to disrespect it or ignore it. Therefore, the variable speed limits do work because they segregate traffic. But I still think it creates an awful lot of frustration because they can't see the reason for the roadworks, particularly if there is no work force around.

We have a classic example on the A46, up in the Midlands, where obviously they are doing the transport. People are trying to do as much work as they can to get the traffic to flow better, but you still have a safety issue up there. Yet, if it is empty at 3 o'clock in the morning, you still have a speed limit imposed. Certainly, on the motorways, it does work in places.



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**Q15 Mr Leech:** I wasn't specifically thinking about variable speed limits on motorways. I was thinking about 20 mph zones as opposed to 30 mph zones and people going in and out of the different speed limits or between 30 mph and 40 mph.

**Hugh Noblett:** I think it comes down to human behaviour and the attitude towards them. The attitude is one of the hardest things I am dealing with as an individual coach with our company. I think it is getting the attitude changed, which is a monumental task.

**Q16 Mr Leech:** What I think you are saying is that people moving from a 20 mph zone to a 30 mph zone, or the other way round, should not have any impact on congestion as such.

**Hugh Noblett:** Exactly.

**Q17 Mr Leech:** Does anyone else have a view on that?

**Nich Brown:** Speed limits are meant to be appropriate to the place that they are governing. 20 mph zones, if they are done correctly, by definition, are areas where vehicular traffic is being discouraged anyway. So congestion within those areas should not be an issue if the local authority has set the speed limit right and set its usage policy right.

Similarly, with other urban speed limits, it is a question of what the available road space is very often, because our towns were not built for large volumes of vehicle traffic. They were built for horse and cart and foot. With smaller modes of travel like bicycles and motorcycles, there is less of an issue. The larger vehicles tend to spend a lot of time stationary, which obviously wastes a lot of fuel and doesn't get anybody anywhere very quickly.

But I agree with Hugh that this is very much down to driver behaviour and it is as much about choosing the right mode of transport for a journey or even deciding whether that journey is necessary at that particular point in time. But, as we have more and more vehicles on the road, unless we build more and more roads, there will be more and more problems. Even if we do build more and more roads, all that does is to encourage more traffic to go on them. I think that is fairly well proven.

**Jack Semple:** The one area of congestion as far as trucks are concerned that is avoidable is when you get a good A road and lorries are limited to 40 mph. That causes unnecessary delay for the transport industry and a lot of frustration for following drivers, but apart from that I wouldn't disagree.

**Q18 Mr Leech:** Can I ask what your definition of a good A road is?

**Jack Semple:** If you look at roads such as the A1 or the A9, and there are a number of link roads in Somerset, for example, where you have a speed limit for trucks that was designed for a different age, where commercial vehicles were completely different. The trunking agreement at one time up to Liverpool on the M6 was 28 mph for a lorry because that was the employer-driver agreement. We have moved on from that, and there are a lot of roads where a 50 mph limit would be much more appropriate and safer.

**Q19 Mr Leech:** Can I just ask why you think it would be safer?

**Jack Semple:** Because drivers get very frustrated following a 40 mph lorry on an A road.

**Q20 Mr Leech:** You think that slow lorries encourage bad behaviour from other motorists.

**Jack Semple:** I think there is an argument there. The Conservative Party, in opposition, made the point that they were concerned that there was a road safety risk in lorries doing an unnecessarily slow speed—much slower than other vehicles on the road.

**Hugh Noblett:** Can I come in on this one and support Jack? I know him personally outside, but that doesn't matter. We have a gentleman who drives a lorry for a well-known company next door to us. One of his biggest issues, in fact, is the lack of knowledge of the British Highway Code, and the lack of ability to read English in a basic form is one of the problems as well. They can't read road signs either—bridges etc. We are coming down to probably the fundamentals.

**Nich Brown:** I think another issue is the setting of rural speed limits on single carriageways. A lot of those carriageways have now been limited to 50 mph. A lot of trucks, because they are governed to a maximum of 56 mph, if they are carrying a heavy load, and because the kind of roads they are on very often have steep inclines on them, can't necessarily achieve the maximum speed. You generally end up, then, with a lot of cars behind those vehicles that can't move forward. That creates a tailback and a lot of frustration.

The trouble with fixed speed limits is that they are a very blunt instrument, whether we are talking about congestion or safety. A local authority setting a 50 mph limit on a rural single carriageway is working to a set of criteria. Local people may agree or disagree with how they have interpreted those criteria. But, ultimately, what we have there is a speed limit that has been set for a set of circumstances that won't always prevail. You get a lot of frustrated traffic that can't move forward because the speed limit is a blanket speed limit and it is actually perfectly safe to exceed the speed that has now been set in some circumstances. But, of course, because it is a fixed speed limit—

**Q21 Chair:** So it is the fixed nature of that.

**Nich Brown:** It is the fixed nature. We don't have the technology yet to allow for changing circumstances.

**Q22 Kwasi Kwarteng:** There are quite a lot of problems and we all recognise those, but, apart from road pricing, which is an obvious route, are there any simple solutions that you think the Government have overlooked that you have found in your experience? Is there any low hanging fruit, as it were, in regard to this situation?

**Nich Brown:** For motorcycles, we have something that is high on our agenda, which is access to bus lanes. When I was working in local government, I was one of the officer team that allowed access to bus lanes in Bristol. That experiment was proven to be a success. Motorcycles have continued to use bus lanes in Bristol now since the early 1990s.

The difficulty is that the numbers involved in proving the safety case for that are so low that a lot of the experiments come out as statistically uncertain. But there have been a number of experiments since and there have not been major catastrophes. There has been an awful lot of opposition to it, and there is an awful lot of resistance, at political and officer level in some local authorities. Our feeling is that, if motorcycles were allowed access to bus lanes, and that was the common practice and people were trained to expect it and to use them properly, that would make a big difference in urban congestion for our users.

The other thing that we would say, to pick up a point that has been made before, is that a lot of people travel at the same time for the same purpose because of school or for work. If we have a more flexible approach to where we work and when we start and finish work, that can take a lot of stress off the roads at particular times of day.

**Jack Semple:** I agree with that last point. The RHA also wants greater access to priority lanes, high occupancy vehicle lanes, bus lanes, whatever. In that context, you should look at an HGV as a freight bus. There is not an alternative; it is generally well loaded; it is not a single-occupancy vehicle. This is a case that is gaining some influence in local government and we have had some success with that on the basis that it improves movement of HGVs, doesn't particularly impact on buses and slightly improves movement of cars as well.

The underlying principle is that we should make more use of available space. The most glaring example is the M6 toll, where we have built this swathe of tarmac through the countryside to relieve congestion on the M6 and it is grossly unused. We have put one proposal in our paper to pump-prime the movement of lorries over there. If there is a major incident between 4 and 11, I think it is, on the M6, why not have an agreement with the operator of the M6 toll, open up the tolls and move the cars along there on some shadow tolling agreement?

**Q23 Chair:** How often does that happen?

**Jack Semple:** It doesn't happen at all at the moment.

**Q24 Chair:** How often is there an incident in the situation where you would like this?

**Jack Semple:** There is congestion quite frequently, but I think every other week there is a major incident. Could I make two other very brief points? I think there is a lot of work that can be done by road authorities and the Highways Agency in improving the efficiency and the speed with which they undertake repairs, taking on board the fact that when they are closing a road or part of a road there is a major impact on the economy—and on pollution, for that matter.

We have had examples on the A303 where we have persuaded the Highways Agency to change a closure at Willoughby Edge from six to eight weeks down to two weeks. There was a closure on the A38 last night at a place called Edithmead that was supposed to run for five nights. We objected and they are doing the work in one night. A lot of work can be done like that. We are encouraged with the response we are starting to get from the Highways Agency, but more

could be done by the HA and, I believe, also by local road authorities around the country.

Finally, with regard to the police, we understand that there needs to be a proper investigation when there is an accident, but there needs to be a much clearer idea about the impact that an extended closure has. We would be interested to see what the benefit is that the judicial system and society gets from a major closure against doing the job more quickly, which appears to happen elsewhere in Europe.

**Q25 Kwasi Kwarteng:** Just following up on what you were saying about Europe, have we had any successes in this area in the last 20 or 30 years or are there things that we were bad at that we are now good at? Has there been any improvement in any aspect of this problem?

**Chair:** Have there been any improvements?

**Jack Semple:** With regard to the movement through major roadworks and improved traffic flow, I have the impression that major roadworks are managed better than they were. Local street works, my members tell me, are still a major cause of inefficiency, and they feel things could be managed better.

**Nich Brown:** I would agree with the point that was made about the major roadworks.

**Q26 Chair:** Mr Brown, can you give us any examples of where things have been done better?

**Nich Brown:** Yes. I think it comes down to the way that the Highways Agency manages the approach to major roadworks. It is very heavily engineered now. There are a lot of cones, there is a lot of advance warning and the traffic flow is managed much better than it was.

What you find, conversely, is that, on more local roads, especially where you have two lanes running into one, we still have this problem of behaviour where vehicle users will see a sign saying that the road is about to narrow 800 metres ahead and immediately everybody gets into the lane that they know they will be allowed to use, instead of filtering alternately when they get towards where the obstruction is. There is definitely a road user behaviour issue there. It would be completely inappropriate to try to use those heavy engineering methods that the Highways Agency are able to use on the trunk roads. There are a number of human behavioural educational aspects to this about people thinking about how they use the available road space.

**Q27 Chair:** At the moment I am just trying to focus on examples of where things have actually been done better—the achievements on that system.

**Nich Brown:** I think anywhere on the trunk road system where there are planned major roadworks, things work better now than they did.

**Q28 Chair:** Mr Noblett, can you give any examples of where things have improved?

**Hugh Noblett:** I still believe it comes down to individual behaviour in terms of how we are dealing with—

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**Q29 Chair:** Is there an example you can give us of where things have improved?

**Hugh Noblett:** Pardon?

**Chair:** I am looking for examples of where the situation has improved.

**Hugh Noblett:** A typical example would be where you get this rather greedy or selfish behaviour where you might well get a business driver, who will come down the outside—

**Chair:** But where is it improving? Can you give examples of where it has improved?

**Jack Semple:** The managed motorway programme has been put in without a huge amount of disruption.

**Q30 Jim Dobbin:** My constituency has the M62 going right through the middle of it and I have some very large distribution parks—one in particular. Heavy goods vehicle congestion has been the bane of my life over the past number of years because the heavy goods vehicles always leave the motorway at the wrong junction and they end up going through the local community every two minutes over a period of 24 hours. Even when the Highways Agency put up massive signs saying, “Do not use junction 19. Use junction 18”, which will avoid the local communities, they never did that. We had to put weight restrictions on and chicane the route to the distribution park. How do you resolve a situation like that? Utilities have just moved in to lay some new lines and they have had to lift the chicane and it is back as bad as ever again. How do you get that co-operation from drivers?

**Jack Semple:** Forgive me, I am unfamiliar with that specific instance and I would like to follow up with it. Was there any communication through a freight quality partnership or through the users of the industrial park?

**Jim Dobbin:** Yes, that was attempted.

**Jack Semple:** I would be interested to see how successful that was and what the process was. Normally, we would suggest that you negotiate with the shippers and receivers of the goods, as well as with the hauliers, as to what route to follow. Could I follow up as to what happened in your example, where the process worked and the extent to which it didn't work and might it work better?

**Q31 Jim Dobbin:** Just to follow that through, don't you think a solution to this would be to get more freight off the roads? Do we need more interchanges?

**Jack Semple:** There are no more trucks than there were. In fact, there are fewer trucks than there were 20, 40, 50 years ago, despite the fact that the economy and the population have grown and so on. There are tensions, inevitably, and it is a question of managing those tensions as best we can. The distribution park on the one hand is providing employment and is ensuring that the people in that area and elsewhere get food and clothes to wear, and we need the vehicles to deliver.

Even were you to move substantially larger volumes by rail—and there is always a degree to which one goes by one mode or the other—you would build in substantial cost. You still have to deliver the last mile, where the people are, by truck. You can shadow the

motorway network by rail, but at the end of the day you have to take the goods to and from the rail-head.

**Q32 Iain Stewart:** In looking at a whole range of options for behavioural change and for management change, I am just trying to put it all in context. What overall reduction in congestion or, looking at it another way, what increase in road capacity are we looking at attaining here? The reason I am asking is this. Can we solve congestion on our roads just by all these measures in the round, or do we also have to look at additional road capacity?

**Nich Brown:** I think it very much depends on what your definition of congestion is. For most people the definition of congestion is, “I can't move as fast as I want to.” But, looking at it more objectively, there are definitely geographical locations and times of day where the traffic is practically gridlocked or moving much more slowly than is optimal. We can identify ways in which we can move people and goods around more intelligently, but it is probably unlikely that you will ever get to a stage where everybody is entirely happy that the road ahead of them is clear.

**Jack Semple:** I would say that we do need more road capacity. We need to ensure that the capacity that we have is managed more effectively than it is at the moment, but I think we do need more capacity. A number of the measures that are identified in the Department for Transport's paper in January are good ideas. We have always thought we need a fresh approach to working, to what generates the traffic. But the concern of a lot of industry going forward, if George Osborne is successful, as he said last week, in bringing back manufacturing—and you might add the process industry—to the country, is that, in terms of lorries, for example, we are going to be seeing more demand for transport although we will be reducing global carbon emissions, because we will be producing more locally and, hopefully, in a green manner.

Long term, it is very difficult to see a reduction in demand for transport, but we have to work for that. No Government seems to want to have substantial improvement in road capacity, but I think we need some improvement and we need better management of what we have.

**Q33 Chair:** You see that as the solution to congestion on the roads: more capacity and better management is required.

**Jack Semple:** More capacity, better management, and better management of the reason why people travel. For example, there is less traffic on a Friday; everybody notices that now. There is less travel on a Friday because more people are working at home. If we can have a more intelligent use of the roads, that has to be an important step forward, given that most vehicles on the roads are cars with one person in.

**Q34 Paul Maynard:** What benefits do you think have been brought to improving traffic management by the gradual proliferation of Highways Agency traffic officers on the roads?

**Hugh Noblett:** Coming back to driver behaviour, which is my forte, you have to change the attitude of

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the individual motorist. Locally, we find very large lorries having great difficulties. They block the roads up; they have a job to do; they have deliveries to do and they have to follow on to the next delivery. So you still get congestion even in a minor way.

**Q35 Paul Maynard:** What benefit have Highways Agency traffic officers brought to the roads?

**Jack Semple:** Our members have no great problems with the traffic officers. They encourage the police to call the recovery operator promptly in the case of an accident, which is always useful. We have suggested to the Highways Agency, and we have had a positive response to this, that they look at, say, the top half dozen incidents involving trucks on the motorway network each week and produce a report about what has caused it so that truck operators and motorists can see what the problem is and perhaps the traffic officers can assist with that.

**Q36 Paul Maynard:** You mentioned earlier the issue of post-accident road management. I was just wondering whether you can give us any examples of how they manage them better in Europe. Am I right in

thinking that, in Germany, they prioritise much more highly the reopening of the road rather than the judicial investigative aspects?

**Jack Semple:** That is my understanding. There was an awful accident on the M25 a week or two ago, for example, when a car transporter went over the road. But the M25 was closed for the best part of a day. The question is what the net cost-benefit analysis is of that. My understanding is that that wouldn't happen in Germany and I think they have a very robust approach to the judicial process in Germany.

**Hugh Noblett:** May I return to the roadworks problem? This is slightly out of my remit, but I believe that rolling roadworks is now law in France, and maybe in Europe. Instead of blocking off five or 10 miles of roadworks where nothing appears to be being repaired, in Europe, you get one piece of road blocked and then it goes on to the next one. That is also another reason probably for reducing the congestion. Rolling roadworks, I believe, is the law overseas.

**Chair:** Thank you very much, gentlemen, for coming and answering our questions.

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#### Examination of Witnesses

*Witnesses:* **Robin Heydon**, Officer, Cambridge Cycling Campaign, **Christopher Peck**, Policy Co-ordinator, CTC, the national cyclists' organisation, and **Majeed Neki**, People and Places Campaign Coordinator, Living Streets, gave evidence.

**Q37 Chair:** Good morning, gentlemen. Welcome to the Committee. Could you give us your name and your organisation, please? This is for our records. I will start at the end here.

**Majeed Neki:** I am Majeed Neki from Living Streets.

**Christopher Peck:** Chris Peck from CTC, the national cyclists' organisation.

**Robin Heydon:** Robin Heydon, Cambridge Cycling Campaign.

**Q38 Chair:** Thank you very much. Is congestion a problem for cyclists and pedestrians?

**Majeed Neki:** It very much is a problem for pedestrians, from our point of view. We relate this problem to the lack of an integrated transport strategy. We need to consider congestion reduction and traffic management as part of a broader picture of reducing motor traffic volumes, encouraging modal shifts to healthier and more active modes and, in the longer term, integrating transport and spatial planning more effectively together to create compact mixed use neighbourhoods that are easier to get around.

**Q39 Chair:** But is congestion a problem for cyclists and pedestrians?

**Majeed Neki:** Yes. It affects streets as places as well as corridors for movement—things like air pollution and the social effect.

**Q40 Chair:** Could you focus on whether congestion is a problem for cyclists and pedestrians and explain to me the nature of the problem?

**Majeed Neki:** Yes. The first point of the problem is that congestion affects streets as places as well as corridors for movement. That affects the pedestrian experience quite profoundly. The second problem is that pedestrians, in the real world, are traffic flow. Pedestrian flow is traffic flow; everyone is a pedestrian at some point. The concept of congestion and the concept of traffic management that we need to have needs to include things like—

**Q41 Chair:** I understand what you are saying; you are painting a picture, but I want you to focus on the question. Could you give me examples of circumstances in which congestion is a problem for cyclists and pedestrians, if indeed you think it is? What is the nature of the problem experienced?

**Majeed Neki:** Congestion is detrimental to the pedestrian experience. It puts people off walking. The congestion in pedestrian flows is a problem for pedestrians as well in things like lack of adequate crossing provision. That actually creates congestion for pedestrians as well.

**Q42 Chair:** Thank you. Mr Heydon, do you have any views on that? Is congestion a problem for cyclists and pedestrians?

**Robin Heydon:** Absolutely, congestion is a problem. We have significant cycle congestion in some locations in Cambridge. I am assuming by "traffic" you mean all traffic: pedestrians, cyclists and motorised vehicles.

For example, there are entrances to most of the commons and, because the commons have cattle on

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them, there are cattle grids, and most of those cattle grids are just one cattle grid wide. So there is a place for pedestrians and there is a place for cyclists. But, with the amount of cycling we have now in Cambridge, we have a significant problem of having two-way traffic going through, effectively, a single lane road. That is a significant cause. The other problem, of course, is that there are lots of big metal boxes on the road that restrict the movement of low carbon emitting vehicles.

**Q43 Chair:** Do cyclists cause the congestion? Mr Peck, do you have a view on that?

**Christopher Peck:** We would certainly argue they don't. Evidence from Holland suggests that you can carry 14,000 cycles per hour per lane, as opposed to 2,000 per hour per lane for a car. As we have already heard, the average loading of a car is between 1.2 and 1.6, depending on the time zone and the type of trip. Additionally, Transport for London have done some recent research which suggested that the value of a bicycle was 0.2 of that of a car when they do their traffic modelling of roads in London. Certainly, it has a much lower impact on congestion than personalised motor vehicles. Of course, the other benefit of cyclists, which has been outlined in the previous session and was picked up by Transport for London, is that they can filter through traffic. Of course, they can be grouped in very large numbers at the front of traffic and there are advanced stop lines that are now used in many places. This keeps them out of the way of motor traffic, allows them to filter through it and doesn't cause a problem to other road users.

I would very much suggest that cyclists do not contribute to congestion. Indeed, they are a major solution to it. In places where congestion has got very bad, we noticed that cycling levels have increased. A lot of people have moved from car to bike as a means of reducing their own susceptibility to congestion and delays that are caused to their trips.

**Q44 Chair:** Does the Highway Code help people who don't drive, or is it just for drivers?

**Christopher Peck:** Part of the problem is that the Highway Code isn't adhered to very well. It certainly could be improved for vulnerable road users such as pedestrians and cyclists, and, indeed, horse riders. I think it is still very much tipped towards drivers. There is a lot of stuff in there about how cyclists and pedestrians should take extra care in certain circumstances.

Yes, it also reflects that drivers have to be aware of cyclists and pedestrians, but certain rules—such as Rule 170, which says that pedestrians have priority at side roads when they have started crossing—are very rarely observed by many drivers.

Certainly, with regard to Rule 163, which advocates that when overtaking a cyclist you give as much room as you give a car, I think our members would agree that that happens very rarely amongst the majority of drivers. Of course, there are a lot of drivers who do overtake correctly, but a significant minority do overtake far too closely, causing both a hazard and a discomfort to cyclists.

**Robin Heydon:** I would say that cycling here I signalled right, put my hand out and hit the white van that was overtaking me. The law or the recommendation, I believe, is that you should give as much space as a vehicle. I believe a vehicle is around 5½ feet to 6 feet wide and my arm is not that wide.

**Q45 Iain Stewart:** With the advent of “Boris bikes” and other similar schemes, we are hopefully going to see a significant increase in people using cycles as a means of transport—a lot of people who will not probably have been on a bike since childhood. Do you think there is a danger that a significant number of new cyclists will not have good road awareness of cycling in congested urban areas, and is there a need for a better education of cyclists on how to use bikes properly in urban areas?

**Robin Heydon:** Absolutely. I can't speak highly enough of, for example, Bikeability, which is aimed at schoolchildren. There are three different levels. I am sure you are well aware of that scheme. I am very happy that the Department for Transport is continuing funding that at least for the next four years.

My concern, though, coming back to your question, is, what about adults? There are, as you say, plenty of adults now taking up adult cycling. Yet, for example, Cambridge County Council have just announced that they are going to cancel all of their cycle training for adults. I can't see how, when the volume of cycling traffic in Cambridge and Cambridgeshire is increasing significantly, cancelling a training budget for adult cyclists, getting them confident on the road, is a good thing.

**Christopher Peck:** I would very much endorse that view. Child cycle training has been very, very effective. It is very highly regarded by children. Adult cycle training has also been very effective. As Robin points out, in certain areas they are cutting the funding for adult cycle training.

In London, there is a much more substantial budget for adult cycle training and it has been very well received. It is a key part of both the Barclays cycle hire scheme that you refer to, and the Cycle Superhighways scheme, which has been implemented by the Mayor. Both of those are supported by a lot of adult cycle training. They are going out to businesses and they are recommending cycle training to those users.

On your point about safety, there is a concern there, but I would suggest that, where we see very high increases in cycling and places where there is a lot of cycling, the risks to cyclists tend to be lower than in places where there is less cycling. For instance, in the Netherlands, the risk of cycling is twice as low as it is here. That is a contribution of infrastructure and so on.

In the UK, places like York and Cambridge have a much lower risk per cyclist of being injured than other places where cycling is much lower. We think that is partly because driver behaviour improves or drivers become more used to cyclists. They may not enjoy having cyclists coming at them at all crazy angles, but they have become better at anticipating cyclists. The evidence from the DfT is that the majority of all crashes between cyclists and drivers are deemed by

the police to be the fault of the driver. So it is improving driver awareness as well as improving the training of cyclists on which we need to focus.

**Q46 Chair:** Mr Neki, do you want to add anything to that on cycle safety?

**Majeed Neki:** We would very much support the role of cycle training and encouraging responsible cycling that meets the interests of all road users, including pedestrians. We advocate a broad modal shift towards active travel. We recognise there is a minority of cyclists who engage in antisocial cycling behaviour, such as failing to stop at crossings, riding on pavements, etc. We advocate vigorous and renewed enforcement of that, but we also want to see it within the broader picture of conditions on the roads for cyclists and pedestrians.

**Q47 Mr Harris:** First of all, can I just point out that I am probably the only person around this table who has passed all three levels of my Bikeability? I have the badges somewhere; I am not quite sure where.

On the Highway Code, it seems that your criticism of it, Mr Peck and Mr Heydon, is that drivers don't obey it rather than the Code itself being a problem. If drivers aren't giving enough space when they are overtaking cyclists, that is the fault of the driver, isn't it, rather than the Code itself?

**Robin Heydon:** The question really is, is it the fault of the driver or is it the fault of the situation that the driver is in? What if the road is narrow? There are plenty of examples I can give in Cambridge. For example, at the end of Madingley Road, there is a beautiful cycleway segregated from the traffic, which goes right into a bottleneck which is one car and a little bit wide. The cycleway feeds into that bottleneck, basically putting the cyclist in the way of the cars. The question I would ask is this: is the infrastructure of the roads designed to help cyclists?

**Q48 Mr Harris:** That is not the question I am asking. Is the Highway Code a problem? Is it the way the Code is written? Is the agency that compiles the Code a problem? Or is it simply the fact that drivers don't read the Highway Code? I have to tell you I passed my driving test in 1982. I have not read the Highway Code since then, and I expect I am not all that unusual. But is the Code itself a problem or is it lack of adherence to its rules?

**Robin Heydon:** I would say that the Code itself starts from the premise of car drivers. For example, the first thing it says for cyclists is "Wear a helmet." Oh my God, it's so scary out there that you've got to put some piece of plastic on your head that does no good whatsoever.

**Q49 Mr Harris:** If you were to take a show of hands in this room, you would find that most people are drivers. Surely, it's a sensible notion to construct a Highway Code that caters primarily to those people who use a particular form of transport. Given that the vast majority of journeys are undertaken by drivers in their cars, isn't it sensible to assume that the Highway Code, therefore, will cater primarily to drivers and to car drivers?

**Robin Heydon:** Sir, I am going to disagree with that hypothesis that the majority of journeys are made by car. In Cambridge, in 2009, 49,956 cars crossed the River Cam every day; 50,822 bicycles and pedestrians crossed the River Cam. The cars are a minority.

**Q50 Chair:** Mr Heydon, isn't Cambridge a special case? Isn't Mr Harris's general point a good one?

**Robin Heydon:** No. Cambridge is what we should be aiming for.

**Q51 Mr Harris:** No, hold on a second. Whatever aspirations you have for Cambridge being the template for the rest of the country, the fact is Cambridge is not typical. I went, as a Minister, to all the cycling cities that Cycle England were funding. None of them was typical of your average town or city in this country. The vast majority of people drive. There are more two-car families in this country than there are families with no cars. All I am saying is would it not be surprising if the Highway Code were not to cater—let me put it that way—for drivers primarily rather than cyclists, for example, or horse riders?

**Robin Heydon:** I think it should be catering for both. If we are going to encourage a country where sustainability of transport is a goal, then you've got to encourage sustainable transport modes, and cycling is one of those sustainable transport modes.

**Q52 Mr Harris:** We are clearly coming to this point from different directions. Isn't the Highway Code a guide for road users to deal with the road as it is today in 2011? It is not some kind of aspirational document of what we want life to be like in the next century. It is about how to cope with the roads today.

**Robin Heydon:** Yes, I agree. But, as mentioned by Christopher Peck, there is a rule in the Highway Code that says, when a pedestrian is crossing a junction, they have priority over side traffic. Even in Cambridge not many car drivers abide by that.

**Q53 Mr Harris:** Can we conclude, then, that the Code itself is not the problem; it is the fact that drivers either don't read it or, if they do read it, they don't adhere to the rules? So it is not the Code itself; it is the users. Is that correct?

**Christopher Peck:** I think it depends on the rules. There are some rules which we are very happy with but there is a lack of adherence to them. There are other rules we feel could be improved. Obviously, there are aspects of the Code with which we agree.

**Q54 Chair:** But Mr Harris's point is that the Highway Code does relate to cyclists as well. Would you agree with that?

**Christopher Peck:** It does, but, backing up what Mr Heydon said, we feel that cyclists, pedestrians and horse riders are very much secondary in the Highway Code. Many local authorities adopt a hierarchy of road users which puts pedestrians and people with disabilities top and cyclists and other non-motorised users below.

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**Q55 Mr Harris:** Can I address one other issue because I think the CTC evidence to the Committee suggested that there clearly is a problem with cyclists being intimidated and sometimes physically assaulted by car drivers or their passengers? What do you say to the argument we constantly hear—Mr Neki referred to this—that if, in central London for example, cyclists even occasionally stopped at red lights, that would help develop a more positive relationship between them and drivers, who have no option but to stop at red lights, otherwise they may lose their licence? You understand what I am saying. There is this resentment, and it is sometimes perhaps irrational, but how often does the CTC tell its members to adhere to red lights and not to go through red lights?

My understanding from way back is that cyclists will justify going through red lights, especially in a built-up area, because they have got a lorry at their back. That is not true because, if you go into central London, the vast majority of cyclists that go through red lights are not being pursued by a lorry. What advice do you give to your members?

**Chair:** Cyclists and red lights—who is going to give us the answer?

**Christopher Peck:** I don't think very many of our members are really the problem here. The Cyclists Touring Club are very much the AA of the cycling organisations.

**Mr Harris:** I am sure.

**Christopher Peck:** But what I would say is I do think that, as you said, this is perhaps an irrational thought that is going through people's mind. It is a very obvious form of law-breaking, but there is a lot of law-breaking among all road users on the roads. 48% of cars are breaking the 30 mph speed limit, 2.5% of drivers—

**Q56 Chair:** Is there more or less law-breaking from cyclists compared with drivers?

**Christopher Peck:** To put it in perspective, in London, over a 10-year period we had evidence from Transport for London which said that about 4% of the pedestrians who were injured following a vehicle jumping a red light involved crashes with cyclists. Cyclists were 5% of surface trips in London. The rest of the injuries to pedestrians involved motor vehicles, of which about half of that were cars and the rest taxis and buses and so on. There were 47,932 fixed penalty notices for drivers jumping red lights in 2005. The only thing that stops them sending out more of these is simply the lack of staff to send out the fixed penalty notices.

**Q57 Mr Harris:** That is exactly the reason why cyclists don't get fixed penalties.

**Christopher Peck:** What we would like to see—

**Chair:** I think we are straying into difficult areas there. Mr Harris, do you want to pursue it further?

**Mr Harris:** I am fine, thanks.

**Q58 Paul Maynard:** Mr Neki, in your evidence from Living Streets, you talked about some of the examples of what were called naked streets. We are looking today at effective traffic management. Would

you argue that perhaps the most effective traffic management is to have less management, reduced management, or perhaps even no management at all?

**Majeed Neki:** I think we need to be quite careful when we are considering this issue, when approaches like that are being yoked to things like removing pedestrian crossings, which I think needs to be considered very carefully in the interests of all road users. But I would say that taking an integrated approach to the management of traffic makes sense.

For example, on Kensington High Street, the traffic was slowed down, there were more informal crossing spaces and there was therefore less need to segregate different road users such as pedestrians and motor vehicles. It is easier for people to cross the road ad hoc rather than having to wait for ages with congestion building up, and there has been a 47% reduction in pedestrian casualties as a result. I certainly think that, while it needs to be appropriate for the needs of that place and the users of that area need to be consulted, it can certainly have a part to play.

**Q59 Paul Maynard:** Do you feel that motorists improve their driving habits in such an environment more than cyclists improve their cycling habits in an identical environment?

**Majeed Neki:** Evidence from the British perspective is of quite short standing and there will need to be quite a lot more research on this. But I think that a cultural change needs to happen over a number of years, and part of that is going to be needing to try out more of these schemes and evaluate them properly.

**Q60 Paul Maynard:** Where it has been tried in Blackpool, the problem we have found is that, while motorists improve their behaviour, cyclists see it as a green light to over-exceed the normal rules of the road that they might otherwise have adhered to. That causes particular concern for the more vulnerable pedestrians, who may have a visual or other impairment. How do you think this perhaps well-meaning idea can be finessed to ensure more effective street management and better protection for vulnerable pedestrians?

**Majeed Neki:** In relation to the point about cyclists, as I have already said, Living Streets advocates more vigorous enforcement of that very small minority of cyclists who engage in antisocial cycling behaviour. But the second point, more widely, is that we advocate that schemes like this or any redesign of streets should be done completely in conjunction with the whole range of road users in that area. If you do that properly, you get fewer controversies, as there have been in Kensington, because there is joint working from the start and you find places that people are happier to use across the board. That is what we advocate.

**Q61 Paul Maynard:** In Kensington, how have those with visual impairments been involved within the system, as it were? What have they done to help the blind?

**Majeed Neki:** As I understand it, they have reached an agreement in Kensington and Chelsea where there

is a lot more involvement of visually impaired groups. I understand there was a lot of controversy over that as certain agreements made that an example of a noted shared space approach.

What Living Streets wants to stress is that it is a spectrum of approaches. There is no necessary reason why a level surface needs to be introduced straight away into every area. That is not what this is about. It is about looking at the broad spectrum of streets as corridors for movement but also places, and deciding on solutions that are appropriate to each place in consultation with the people using them.

**Q62 Jim Dobbin:** This is an interesting discussion. As a driver of 50 years—I suppose I am giving my age away there—I am becoming less and less confident on the road, especially driving in the City of London. I feel under threat at times, and it is basically from cyclists and motorcyclists because you don't know where they are coming from.

Don't you think that there is probably the need for some national campaign of understanding for road users? Don't you think it is time that that happened? It appears to me that we are all in competition for that road space at the present time and it is quite unsafe. The point has been made about the Highway Code. I see cyclists day after day going through red lights and breaking the Highway Code. All I am suggesting is that it may well be that all road users need to go through a process of minor education.

**Christopher Peck:** We would be very happy to see a campaign and associated enforcement of all road traffic law, because, as vulnerable road users, both cyclists and pedestrians have the most to gain from an improvement in road traffic behaviour and adherence to traffic law. I come back again to the 30 mph speed limits. 48% of cars are observed to be breaking them. It is all road users who are to blame here.

Cyclists can be obvious. The anarchic behaviour of cyclists upsets people, but, when it comes to red light jumping, I think there is a very interesting thing. There has been some research which looked at why cyclists jump red lights, and Mr Harris referred to some of it. Perhaps some cyclists excuse their behaviour—they are escaping danger or they are doing it in order to make progress without interfering with anyone else; whereas when drivers jump red lights they accelerate through the end of an amber phase, putting everyone at risk. They speed up to go through, and it doesn't look as bad.

**Chair:** Could I just remind you that our focus today is congestion and what causes congestion or might alleviate it?

**Jim Dobbin:** I just wanted to make the point that I feel I am a threatened driver. I have lost my confidence.

**Majeed Neky:** I think a road user environment where that kind of competition that you mention is encouraged is exactly what we need to change with better street management solutions. I would like to return for a second to the discussion on the Highway Code.

**Chair:** In relation to congestion.

**Majeed Neky:** If it is to be reviewed and improved, I think road traffic incidents would be reduced and the

smooth flow of traffic would actually be encouraged if it was to state clearly, strongly and up front the rights and responsibilities of all road users and set that out clearly. I think that is a role it needs to play.

**Q63 Chair:** Is there any actual evidence that if more people walked or cycled, there would be less road congestion?

**Robin Heydon:** I can only speak from the context of Cambridge. Cambridge is a very congested city. There are many people who want to drive, but we have had a significant increase in the number of people travelling into Cambridge.

When we look at traffic, I think we have to decide whether we are just focusing on the people in the big metal boxes moving at 14 mph average speed, or whether we are looking at everybody moving through the city. In Cambridge, there has been a significant increase in the number of people cycling and the number of people using the bus services, but no increase at all in the number of people using cars. From a car perspective, you could argue that congestion has not improved—that congestion is exactly the same as it was 10 years ago.

**Q64 Chair:** It has not improved congestion but it has not made it worse.

**Robin Heydon:** From a car perspective. But, from a prosperity point of view, the number of people travelling into the city, the number of people able to access jobs—

**Q65 Chair:** That is not the question. I am asking a very specific question. Is there any actual evidence that increased walking and cycling reduces congestion?

**Robin Heydon:** Yes.

**Q66 Chair:** You are saying in Cambridge, yes.

**Robin Heydon:** In Cambridge, we have gone through, I think, four or five phases now of the Core Traffic Scheme, which has basically been reducing—

**Q67 Chair:** No. Can you just give me the answer whether it has or it has not?

**Robin Heydon:** It has.

**Q68 Chair:** Is there actual evidence from anywhere else in the country that it reduces congestion?

**Christopher Peck:** In London, for instance, we have had the congestion charge. That has meant there are 60,000 fewer drivers, from the year 2000, entering central London every morning. It is down from about 150,000 to around 85,000 to 90,000. Those people have gone on to other modes and we have seen a big increase in cycling. There has been over 100% increase in cycling over that period. There have been increases in bus use. These multimodal things depend, as it were, on people transferring from bus to walking.

**Q69 Chair:** There, it is cycling combined with public transport which you are saying has reduced it.

**Christopher Peck:** In some cases, yes, a lot of people coming to rail, but also a doubling of cycling into central London.



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**Q70 Chair:** Would traffic flow more freely if there were fewer traffic lights? That is one of the suggestions that has been put forward to us.

**Majeed Neki:** As I said before, that needs to be looked at incredibly carefully.

**Q71 Chair:** I know that, but I am asking for examples. Is there any actual evidence that, by reducing the number of traffic lights, you would have more free-flowing traffic and not more accidents?

**Majeed Neki:** We are certainly not aware of any, which is why we are concerned about this happening without evidence.

**Q72 Chair:** I just want examples. I am not looking for the general philosophy. We have all that in the written submission. It is examples.

**Robin Heydon:** I have an example on the northern entrance of Cambridge. At Histon Road, there is a new junction which has been put in because of recent development. It takes approximately four minutes for pedestrians or cycles to cross basically four lanes' worth of traffic. That has significantly increased cycle congestion at that location because of those traffic lights. I am not saying we should remove them, because if you remove them, you get the situation that we have at the A14 slip road at Horningsea. Between Horningsea and Fen Ditton, they have just spent a significant sum of money to widen the cycleway but they have not put traffic lights in, which basically means that a cyclist or a pedestrian has to wait five minutes for a gap in the traffic.

**Q73 Mr Harris:** Mr Peck, I want to pursue this line of inquiry about the congestion charge in London. This is a genuine inquiry because I don't have the

information to hand. There has been a reduction in the number of cars that have come into London since the congestion charge was introduced, which has also led to a modal shift to either cycling or public transport. It sounds like a counterintuitive question, but does the fact that there are fewer cars mean that there is less congestion? In other words, has some of that road space been taken up by other modes of transport?

Presumably, we measure congestion by the average speed of a journey within a particular area. How has the average speed of a car journey changed since the introduction of the congestion charge and can we use that measure to decide whether or not that has been successful?

**Christopher Peck:** I don't have the exact data for you. I am sure Transport for London could provide it or I could provide it at a later date. I believe the average speed in central London of vehicle traffic is about 9 mph and in Greater London it is 18 mph. I don't believe that has changed all that much, but I would come back to what Mr Heydon said. All the traffic must be considered under the Traffic Management Act 2004. We must consider all traffic to be part of that.

I know that part of the movement after the congestion charge was, yes, to reallocate some of that road space to bus priority and also to pedestrian priority, to increase phasing time for pedestrians, who are also victims of congestion in terms of busy pavements around here. You will see a lot of people waiting to cross to Oxford Street or wherever. So I do believe there has been an improvement in traffic flow in central London as a consequence of the congestion charge, and the reduction of private car use has undoubtedly contributed to that.

**Chair:** Thank you very much for coming and answering our questions.

### Examination of Witnesses

*Witnesses:* **Mark Kemp**, senior member, Transport Committee, ADEPT, **James Coates**, member of Public Policies Committee, Chartered Institute of Logistics and Transport in the UK, **Stephen Glaister**, Director, RAC Foundation, and **Nick Reed**, Senior Human Factors Researcher, Transport Research Laboratory, gave evidence.

**Q74 Chair:** Good morning, gentlemen, and welcome to the Transport Committee. Please could you give your name and organisation? This is for our records. We will start at the end.

**Stephen Glaister:** My name is Stephen Glaister. I am Director of the RAC Foundation, which is an independent research charity.

**James Coates:** My name is Jim Coates. I am a member of the Public Policies Committee of the Chartered Institute of Logistics and Transport. I am sorry that is a mouthful.

**Mark Kemp:** My name is Mark Kemp. I am representing the Association of Directors of Environment, Planning and Transport—ADEPT. I am Chair of the National Traffic Managers Forum.

**Nick Reed:** My name is Nick Reed. I am a researcher at the Transport Research Laboratory.

**Q75 Chair:** How does bad driving affect congestion?

**Mark Kemp:** I think there are plenty of examples of poor driving behaviour causing congestion,

particularly when you talk about the urban environment. Abuse of the yellow boxes, improper parking, people not leaving space at traffic signals and those sorts of things certainly cause congestion and lock up the system at peak times. That is the critical thing. Congestion tends, in most parts of the country, to be a peak issue rather than an issue throughout the day. There is the other issue around tailgating and therefore shunts happening as people are braking on the faster roads around the network, and then you have planned and unplanned incidents which will then cause congestion.

**Stephen Glaister:** One of the important considerations as our roads get close to their capacity is the damage to traffic flow caused by incidents, as was just referred to. To the extent that major and minor accidents are caused by bad driving, it is a very significant source of congestion.

I am sure we have all experienced the effect of major accidents on motorways, which causes the road to be closed for a very long period of time. If anything can

be done to reduce the incidence of those and the length of those incidents, that would be enormously helpful in reducing congestion.

**James Coates:** I suppose the other thing is that lane discipline on motorways is often not very good. You find that there are too many vehicles in the fast lanes and not enough people using the slow lane. One of the results of the managed motorway system on the M42 was that by controlling speeds, opening up the hard shoulder and having an influence on lane discipline they got a more even spread of traffic over the whole capacity of the motorway and that increased the throughput. That is a way in which clever traffic management arrangements can cajole drivers into doing things that they ought to be doing but aren't.

**Q76 Chair:** Mr Reed, do you want to add anything to that on the impact of actual driving on congestion?

**Nick Reed:** Yes. Mr Kemp mentioned tailgating leading to potential incidents. It also leads to sharp braking, which can cause shockwaves in the traffic flow and the phantom tailbacks that I am sure we have all experienced from time to time where there is no specific cause of the congestion, but the shockwave from vehicles braking heavily causes other vehicles to brake behind them and so flow is interrupted.

**Q77 Chair:** Has the Traffic Management Act made congestion better? Has it improved congestion?

**Mark Kemp:** The Traffic Management Act has been very helpful for local authorities in that it has enabled officers to raise the profile of transport and transport issues within the authority for members. Certainly, the requirement on the lead authority to consider traffic congestion and the expeditious movement of traffic as a whole authority has been very important.

One of the areas where we have a little bit of a problem is where we have two-tier authorities and therefore the planning authority, which is senior to the highway authority in terms of the planning consideration, doesn't necessarily have the same requirements. There is a challenge there for us in terms of the dilemma between economic growth and planning considerations and the impact of congestion on the network.

**Q78 Chair:** Is the localism agenda a good or bad thing in relation to dealing with congestion?

**James Coates:** The Chartered Institute, on the whole, is rather in favour of the localism agenda and getting back to the situation where local authorities are as powerful and independent as they were in the 19th century, when Liverpool, Manchester, Leeds and Birmingham wouldn't have come to Whitehall for a grant to build a new town hall; they got on with it. But there is an important proviso.

**Q79 Chair:** Can we take it at the localism agenda of today and not go back two centuries?

**James Coates:** What worries us, I think, about the localism agenda is that it might be half-hearted. The Government may say they want more responsibility to be devolved to local authorities, but they are not giving local authorities the powers and the means to do it. They won't have enough resources. If they want

to raise the money locally, which I happen to think would be much more sensible than getting it from the centre, they may find that they are capped or they are told they have to freeze their rates. That may be okay at the moment as a temporary measure, but in the long run you want local authorities to have access to the business rate, then there is a local democratic decision whether they want to spend more on things or not, and local authorities can get on with it.

The other thing that I suppose slightly worries us is that the localism agenda seems to have got rid of the regional tier. We have the LEAs, and we are not quite sure how they are going to turn out. But a lot of local authority areas are far too small for sensible transport planning, which is what congestion relief is partly depending on. You need sensible arrangements at sub-regional level, and we have to hope that the LEAs and the local authorities will work together and that in some of the big cities they will use the powers to create integrated transport authorities and so on, but we wait to see.

There is a fourth point, if I could make it, which is that central Government can't wash its hands of local transport problems. We are rather worried that central Government might just say, "It is nothing to do with us." Indeed, I think, when the Secretary of State gave evidence to this Committee before Christmas, he more or less said that. "Stop asking me questions about that," he said. "This is a matter for local authorities." But there are certain things with which central Government still has to concern itself. One is the legislation and powers. Another is some degree of uniformity in managing traffic, because motorists from different parts of the country don't want to be confronted with something totally unfamiliar; there has to be some central regulation. And central Government is responsible for the national motorway network.

Perhaps now is not the moment for me to make this point, but congestion on the motorways at the peak period is caused to a very large extent by what local authorities are or are not doing, not by what the highways authorities do.

**Stephen Glaister:** Just to add to Mr Coates's answer, which I entirely agree with, there is clearly a very big distinction between the strategic routes and the local road network. Presumably, there is a network for which central Government is and will remain entirely responsible and accountable, currently defined by the Highways Agency.

Our worry is the area between the Highways Agency and the local authority. There are a very large number of very large roads which, for funding purposes, do not come under the direct control of the Highways Agency. If I give you an example, the A12 is a major road going from the boundary of London all the way up to the ports at Felixstowe and Harwich. That road was, for funding purposes, the responsibility of the East of England RDA. I am entirely unclear about what is going to happen about the accountability for that road, but in terms of dealing with management and capacity improvements on that road, we surely can't expect the local communities through which it goes to deal with the proper stewardship of that major

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highway. I think that kind of thing is repeated all over the country.

**Q80 Paul Maynard:** I asked these questions to the first panel, which you may have seen earlier, but I just wanted to compare it with your answers. What improvements to effective traffic flow do you think have arisen from the increased number of Highways Agency traffic officers on our roads?

**Stephen Glaister:** I am not sure I have evidence to cite about the effect over time on the motorways. Just to go back to the same example, what I do know is that, after an inquiry into the functioning of the A12, Essex County Council provided some funds to put traffic officers on to the A12 where they hadn't been in the past, because typically, I think, they are only on motorways. That has been looked after by a partnership between the county council, the police and the Highways Agency. It has been enormously successful.

One of the big problems on that road, like many others, is that when you have major incidents there is no alternative route and the road just stops for hours on end. The traffic officers have been very effective in clearing the incidents up more quickly and managing the incident while it is being cleared up. I think the partnership was very keen to continue with that arrangement in spite of the withdrawal of central Government funding recently. I think there is some evidence from that particular example of what we would all expect—if you give some care and attention to the day-to-day management of a busy road, you can actually make it function a lot better, and traffic officers have been effective in that case.

**Q81 Paul Maynard:** Do any of the panel have any evidence or knowledge of what occurs in Europe in terms of clearing up after accidents to reopen roads? Is there anything they do differently from which you feel we could learn? You may not know anything at all.

**Stephen Glaister:** I can offer something as a result of some work that was published about a year ago, which was comparing performance in different parts of this country. Different police authorities have different ways of dealing with this subject. Some authorities will have trained officers who will go to the site, who can take photographs straight away. Other authorities will use a specialist photographer who may be at the other end of the county when an accident happens. Different police authorities are differently effective in dealing with accidents quickly, which tells me that if everybody adopted best practice, there could be an improvement.

**Q82 Paul Maynard:** Finally, Dr Reed, I read your evidence about bus lanes quite carefully. Would you be able to identify any key variables that made a bus lane more effective than a bus lane that did not work, because there seemed to be a lot of varying experience and I could not identify what made one work and the other fail?

**Nick Reed:** The bus lane aspect of the written evidence wasn't part of my contribution. From what I

understand, the length of the setback is a key aspect and that is very location-specific.

**Q83 Paul Maynard:** What do you mean by "setback"?

**Nick Reed:** The distance between the end of the bus lane and the junction so you can allow traffic to turn left at that junction.

**James Coates:** Can I answer something on your question about bus lanes? I am not an expert on traffic management but I listen to people who are. Yes, I think there is that point. If you have a bus lane going all the way up to the traffic lights, that would reduce the capacity of the junction for all the other traffic. So, normally, that doesn't happen; normally it is set back. One of the bits of evidence you have been given makes the point that, if you reduce the other capacity too much so that traffic tails back, the buses can't get into the bus lane in the first place. That has happened, for instance, on the Holloway Road in Islington. There is a double bus lane there, but quite often at the junctions the buses are held up by the other traffic and they can't get through.

My main conclusion from all that is that you have to be very clever and expert in how you do it. You have to tailor the bus lane to the circumstances.

**Q84 Paul Maynard:** The main lesson is that there are no lessons about bus lanes.

**James Coates:** There are. There are examples where bus lanes have been extremely successful in improving the speed of the journey for bus passengers. Where that has been done as part of an overall strategy, because of the improvement in the service, more people are travelling by bus and fewer by car, and therefore that has, in some instances, even reduced the congestion to the cars as well as to the buses.

**Q85 Chair:** Are you saying, Mr Coates, that bus lanes can in fact help?

**James Coates:** Bus lanes are very important.

**Q86 Jim Dobbin:** I am interested in this giving power back to the local area—localism. It is my understanding that, in Europe, they manage their utilities and the repair of those facilities much better. We see examples here all the time of the water company coming and ripping up the roads and repairing them, and then the gas people will come in and do exactly the same over a period of a few months. Do you think the Government and local government should look at how to solve this?

**James Coates:** The Government have legislated on that, and local authorities now have new powers and responsibilities for managing roadworks. I am not an expert on how that is working, but one hopes it makes an improvement. Perhaps Professor Glaister can say something on it.

There was an earlier question about the congestion in London after the congestion charge was introduced, and I think the answer to that was that traffic fell and congestion was considerably reduced at first, but now it has grown back and the speeds are just as low as they were before the congestion charge was

introduced. The main reason that Transport for London gives for this is that roadworks have disrupted the traffic and caused this great slowing down. Of course, there is a problem in old cities like London that a lot of the old Victorian infrastructure is crumbling and has to be replaced. In some countries like Germany, they have put them all under the pavements so that when you have to replace them you don't dig up the carriageway, but we haven't done that.

**Stephen Glaister:** I think that the Traffic Management Act has been a step in the right direction. It has been helpful, and the permitting system that goes with that has been helpful. But I think there is probably a long way to go to get to the best outcome.

As I understand it, there is little mechanism for local authorities to persuade the utilities to put more effort into those physical situations where there is a lot of congestion on the very important routes as opposed to a back street. Essentially, the permit system is blind as to whether it is a minor road or a major road. I think, at the end of the day, the only thing that will solve that is if there is a financial incentive on the utilities to put more effort into the places where it really matters, and, at the moment there isn't that incentive.

I am very interested, as I believe the Mayor of London is, in the idea of lane rental, where the utility, like everybody else, should pay for the amount of road space that they use in doing their legitimate business and delivering services. That charge should relate to the value of the particular piece of road and therefore to the amount of congestion they are causing. That will give them financial incentives to put more people in and to plan and do all the things they could do to get the roadworks done more quickly rather than less quickly.

To achieve that, to get the utilities to accept that, we have to persuade the utility regulators to allow the cost of lane rental into their legitimate cost of doing business, provided they do that economically and efficiently, as the phrase goes. At the moment we have a difficulty because the financial incentives are not aligned. Until they are aligned, I don't think we will make a lot of progress.

**Q87 Jim Dobbin:** I understand that, to be able to tackle local flooding, they determined that a local authority would be the lead agency. Isn't that clearly what we want here? In other words, the local authority would lead all these other agencies, the utilities and so on, and co-ordinate those plans?

**Stephen Glaister:** In the sense that it would take a lead in planning everything and deciding when things got done, that kind of thing, if they had the resources and powers to do that, that may be a way forward. I am not sure they have either at the moment, though, do they? Do they have the powers?

**Q88 Jim Dobbin:** I understand that, as far as co-ordinating action against local flooding is concerned, the local authority has that power now. That is my understanding.

**James Coates:** I am a bit out of date on this, but I believe that the utilities have to notify the highway

authority if they wish to dig up the road. Sometimes it is an emergency—the gas main has fractured or something and they have to do it, and the local authority then has to introduce traffic management measures to try and minimise the disruption that it has caused. There is a system in place already that I think does not work very well and the new legislation is supposed to rectify this, but I am sure it is the case that the utilities have to tell the local authority and, in principle therefore, the local authority, having had requests from the water board, the electricity board and the gas board, can co-ordinate things. But in practice it is much more difficult than that.

**Q89 Chair:** Mr Kemp, can you assist us with this and how it actually works?

**Mark Kemp:** Yes. There is a role for the highway authority in terms of co-ordinating and we work very closely with the utilities to try and co-ordinate works. It is very difficult, as Mr Coates was just saying, with emergency works and that sort of thing. But there are plenty of examples. For example, we have major gas works going on in the middle of Cambridge at the moment. We have had quite a lot of meetings with the gas board to get the works co-ordinated, timing it around when they can do work and when they can't. We do have certain powers there.

I think, as Professor Glaister was saying, there is an issue of how we drive utilities and highway authorities to make sure they co-ordinate best, to mitigate the congestion issues. Fiscal is clearly one of the options. The Kent permit scheme has charges for certain categories of road but not others. You can do that to some degree, but the level of charging that you can put in has to be at nil cost. So the authority has to just charge what it is costing them to do the work. What that means is that, in terms of the actual works that are going on, it is a very small amount of money and doesn't really incentivise that creative thinking to pull the authorities together to get the highly co-ordinated solution that you are talking about in terms of utilities working together in those sorts of ways.

**Q90 Mr Harris:** In the earlier part of this session it was suggested that certain types of driver behaviour, like occupying the yellow box and bad parking, increased congestion. Have any international research studies been carried out to show whether other countries have the same kind of problems? Is the standard of driving in other countries better or worse and does it result in more or less congestion? Is there any evidence to enable us to assess where we stand internationally?

**Mark Kemp:** I am not aware of any international evidence, but what I would say is that, under the Traffic Management Act 2004 and not yet enacted, there is part 6, which enables local authorities to take on moving traffic offences so that you can use camera enforcement to deal with yellow boxes, etc. In fact, in London they have these powers already. You can see these things working in London and, to some degree, some of the benefits they have had have come from those powers. But, quite clearly, there is a win to be had in getting that part of the Act through so that local authorities can take on that responsibility should they

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wish to do so. I know that some of the major cities around the country are keen to do that.

**Q91 Mr Harris:** I just wondered whether there was any way of benchmarking Britain in terms of international competitors. I have seen a couple of pieces of research that show diametrically opposite conclusions when it comes to the effect on congestion of increasing the top speed limits, especially on motorways. A piece of research that I saw a long time ago showed that if you increased the top speed limit to 80 mph it would actually make congestion worse, which sounds to me counterintuitive. But I have also seen research that showed that reducing the speed and encouraging drivers to drive more moderately will help congestion. Mr Glaister, are you aware of any particular research showing one or the other?

**Stephen Glaister:** I am not an expert, but I am sure you will find that the way the managed motorway schemes have been designed has been based on a lot of research into that particular issue. What I am confident about, in terms of the follow-up to the managed motorways, is that they have greatly succeeded in increasing the throughput of a piece of road by limiting the maximum speed to 50 mph or 60 mph, whatever the limit is. The reason for that is that, at low speeds, vehicles can travel closer together safely. You do not have to have such a long distance between them. Crucially, you regularise the speed so that they are all going at the same speed. It is not just a matter of what the maximum speed is; it is a question of what the mix of speeds is to determine the actual throughput of the vehicles.

My colleagues will confirm or not, but I think the evidence is very clear that a managed motorway scheme—which is, as they are, very carefully enforced, and people do comply with them—has been very successful in increasing throughput and reducing the accident rate.

**Q92 Chair:** Mr Reed, I think you have been involved in some work on this, haven't you? Can you tell us about your findings?

**Nick Reed:** I would echo Stephen's comments. Reducing differentials between traffic travelling at higher speeds and then the congested areas is very important in maintaining traffic flow. From the studies we have done, we find that people generally behave quite conservatively. They follow the signs; they do what is being asked of them by the managed motorway information. That really does help to improve the traffic flow—the traffic situation—and increased throughput has been observed on the active traffic management scheme on the M42.

**Q93 Chair:** What can you tell us about other aspects of your work in relation to reducing congestion? What have you found to be effective ways?

**Nick Reed:** As I said, with the managed motorway scheme the drivers do behave correctly, from what we have seen. They follow the information that is given to them. The position we are in now is that we have the opportunity to be more progressive in the measures taken with managed motorways. We can try to do more with less infrastructure and increase the

rollout of managed motorways across the network to gain those improvements elsewhere.

**Q94 Mr Harris:** Just on the ATM system on the M42, it is not, though, just about limiting or regulating people's speeds, is it? It is also about extra capacity at peak times; it is about using the hard shoulder. It is, presumably, quite difficult to get decreased congestion with all of these traffic management schemes in place unless, crucially, you actually have that extra space on the road. Would that be right?

**Stephen Glaister:** Absolutely. If I may, I think that is an excellent point. The motorways, I think, carry something of the order of 20% of the national traffic. The rural trunk roads and primary roads carry 30%, and they of course don't have hard shoulders available, typically.

While we at the Foundation are very much supportive of the managed motorway programme and we would like to see the previous Government's programme restored to what it was and indeed extended, we are also concerned that they distract attention from everywhere else, where you do not have the option of a hard shoulder that you could use.

Also, of course, the managed motorway hard shoulder doesn't give you an increase in junction capacity, and very often the problem is access to the motorway, not the capacity on the motorway itself. So you need to think about dealing with that problem.

Finally, managed motorways have worked well, but they give less capacity than a widening scheme, at less cost. There are situations where the right solution will be to widen rather than have hard shoulder running, and the M25 may be a good example of that. The choice is just how much capacity you need and whether you can provide that capacity through the managed motorway system or you need something different.

**Q95 Mr Harris:** Motorways don't suffer from congestion outside peak periods, essentially. When we are talking about congestion, we are talking about peak periods. Surely, Active Traffic Management is very well suited to that particular problem because you are expanding capacity when you need it and reducing it when you no longer need it. That is presumably more cost-effective, because if you add an extra lane on to the M25 it is there at all periods of the day and it is costing a huge amount of money. Going back to what you said about the extension of ATM, that is something, presumably, that is cost-effective and could be spread throughout the country at a far more cost-effective rate than widening.

**Stephen Glaister:** I would agree with you and I think I said that. But you need to make sure that there aren't situations where the widening is really justified. There are parts of the motorway network that are congested for a very large part of the day. One thinks of the M6 between Birmingham and Manchester, which is chock-a-block almost all the waking hours of every working day, other parts of the M6 further north and the M25.

All I am saying is that you need to do the sums to make sure that the managed motorway is an adequate solution to the problem. I submit that that particular

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piece of the M6 north of Birmingham should be looked at very carefully, as to whether we should revert to the previous plans to have some kind of widening scheme or an additional piece of capacity in the interests of making that area function properly, because it doesn't at the moment. I am talking now about the economy in that area.

**Mr Harris:** Just on that point, I drive up that particular piece of road fairly regularly and it is often very, very busy, but I have actually rarely found it chock-a-block, as it were, at a snail's pace.

**Q96 Iain Stewart:** You have answered the questions I was going to ask. Can I look at using technology in the more informal sense? More and more cars have sat-nav technology. What evidence do you have that that changes drivers' planning in terms of the route that they take between two given points? Is that an effective, informal method of managing traffic flow or do drivers tend not to take too much notice of it?

**Nick Reed:** I think it could be. If there were a central resource that could manage the guidance given by a navigation system and help in implementing a managed motorway type of scheme, then there is an opportunity there and the technology is there, or will be in the near future, to do that. There is an opportunity there perhaps to make progress with using navigation technology.

**Q97 Iain Stewart:** Forgive me; I am not terribly au fait with the different systems. At the moment there are lots of different sat-nav systems that will have different degrees of accuracy and traffic information. Is there a need for a standard control that they can all link into?

**Nick Reed:** Yes. That could happen, yes.

**Q98 Iain Stewart:** But there is not at the minute?

**Nick Reed:** No.

**Mark Kemp:** Obviously, at the moment there are algorithms within the sat-navs that give you shortest journey, quickest journey—whichever the solution is that you want. What they don't give you is the most appropriate journey in terms of the highway network and managing the network properly.

As an example, if you have an accident on the A14, there may be times when, rather than letting people go through Ipswich because that is where that sat-nav is telling them, they would be better off sitting on the A14 for a short time. Making those decisions, I think, is critical in taking the next step in terms of incident management.

**Stephen Glaister:** That is a very interesting example. It may not be so much to do with sat-navs as other sources of information to drivers. We did find on the A12, when we looked at it, that there was a lot of scope for better signage operated by the road manager, in real-time, to direct the traffic round an incident. However, you are always very limited by the alternative routes. If there isn't an alternative route, you are stuck. This is very much a geographically specific issue.

**James Coates:** You have got to have a system that is dynamic if you want it to deal with the incidents of congestion rather than something that is around all the

time. There are systems but I can't remember the name. There is one that predates sat-nav which you can buy, which tells you whether the road is congested or not and advises you to take an alternative route. How well it works I don't know. It is a very well-known system.

But most people's sat-nav has the hard disk on it which has the road network on it. It doesn't tell you whether the road happens to be blocked at the moment or where you might go if it is. Perhaps there are some that have these whistles and bells, but most of them do not do that. You would have to have a system that was in communication with the highway management organisation to feed that information back.

**Q99 Chair:** Is there such a system?

**James Coates:** What is the one called that—

**Q100 Chair:** Does such a system exist where it is in touch in an ongoing way with traffic management?

**James Coates:** There is one. I can't remember what it is called.

**Mark Kemp:** The higher end sat-navs certainly have traffic information on them, which is fed by Trafficlink and all those sorts of organisations. They do have that at the higher end, but a lot of the more basic end ones don't.

**James Coates:** The cheap one I have doesn't do it.

**Q101 Chair:** So it is there.

**Mark Kemp:** I suppose as they become more popular and the technology increases—

**Q102 Chair:** So there is a solution but it is not available.

**Stephen Glaister:** It is essentially the same information source, I believe, which is used by the local radio stations. Trafficlink provide information to local radio stations; they also provide information to sat-nav providers.

**Q103 Chair:** How can parking controls help congestion?

**Mark Kemp:** To me, there are two levels of this. I am the Director of Highways in Cambridge. If you take parking in its widest sense, then using parking patrols for off-street and on-street parking, and linking that to alternative modes to get in better site facilities, bus lanes, park and ride, those sorts of things for all your major conurbations, can help. That is how Cambridge have managed to keep the vehicles over this screen line, as was referred to earlier, down to the level that they have, by careful management of all these items. At the other end, there is the issue of people parking inappropriately, in difficult locations, and therefore causing congestion through driver behaviour, going back to your initial point.

**Q104 Chair:** Is the type of parking system that you have just described, where it is linked to traffic management, found commonly across the country or is it just in certain areas such as Cambridge? Can anybody else answer that? Is this something that is found more generally?

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**James Coates:** Most local authorities that have a congestion problem try to regulate the parking that is under their own control in such a way as to alleviate the problem. For instance, in London, well before the congestion charge was introduced, the Greater London Council, and before it the LCC, had restricted permission for parking and introduced parking meters and so on, not only to make the roads work more efficiently but also—

**Q105 Chair:** Mr Coates, I want to know what is happening now in other places. Is the situation Mr Kemp described found, generally speaking, across the country or is it just in certain areas?

**James Coates:** I think the answer is yes, but there are two difficulties. One is that if you want to manage the total demand for parking, and particularly all-day parking compared with short-stay, and peak hour parking compared with off-peak parking, those can be very effective ways of having an effect on the level of traffic at different times of the day. Local authorities do do that to some extent, but they do not have control over the private non-residential parking at office blocks, NCP car parks and so on. In some large cities, these are a very significant part of the total parking stock. I think it is true of Manchester and Birmingham, for instance.

Local authorities have powers, which I think they have never used, to establish zones in which off-street parking has to be licensed, and they can then determine the mix of the long-stay and short-stay and the charges that are made. But if that results in the off-street car parking provider suffering a loss of income, he has to be compensated, and because of the fear of this local authorities have always shied away from doing anything about it.

You have had a submission from a group called the Green Light Group, and the CILT is one of the institutes that is a member of that group. They have made suggestions about how the law could be changed to make it easier for local authorities to control the amount of parking and the peak and off-peak split and the overall charge for parking, if you like, as a substitute for road pricing. Over and above that, of course there is workplace parking, which was introduced by the last Government and which Nottingham are actively pursuing, but I don't think anybody else is. We wait to see what happens in Nottingham. That might be very effective.

**Q106 Chair:** Could each of you perhaps give me just one final thought on what the Government can do to

deal with congestion problems? Is there any one thing you would like the Government to do? Maybe there isn't anything.

**Mark Kemp:** I have already mentioned Part 6 of the Traffic Management Act and enabling local authorities to deal with moving traffic offences as we can in London.

**Q107 Chair:** Thank you. Does anybody else want to volunteer any proposals for the Government?

**Stephen Glaister:** I am afraid this is a proposal I made to you on another occasion. It is simply that the Government should have a proper understanding of what is going to happen to congestion in the future on the bit of the network that it is responsible for and have a plan for dealing with it, because it does not have that at the moment.

**Nick Reed:** I think it is a common thread in the sessions that we have had this morning related to attitudes. It is driving attitude, driver behaviour, gaining an understanding of how those attitudes are represented across the different road users—pedestrians, cyclists, motorists, truck drivers, motorbikes—and ways to improve compatibility between those groups.

**James Coates:** I think what the Government might do, which I am sure won't happen, is what the previous Government said it was going to do and never did, which is to explain to the public what the advantages of a fairer charging system might be. Some people say we should put up the fuel duty. That could indeed cut traffic, but it would be an extremely inefficient and unfair way of doing it, and there are arguments for saying the fuel duty is far too high from a transport point of view and should be cut. There are other ways of charging people for using roads and the public are against it.

**Q108 Chair:** Do you mean road charging?

**James Coates:** What they would get out of it has not been explained to them.

**Chair:** We will note that, but this Government have said, as the previous one did, that they are not going to do it.

**James Coates:** No, they are not going to do it.

**Chair:** There we are. Thank you very much, gentlemen, for coming and answering our questions.

**Tuesday 10 May 2011**

Members present:

Mrs Louise Ellman (Chair)

Mr Tom Harris  
Julie Hilling  
Mr John Leech

Iain Stewart  
Julian Sturdy

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**Examination of Witnesses**

*Witnesses:* **David Brown**, Director General of South Yorkshire PTE, Passenger Transport Executive Group, and **Peter Nash**, Policy Adviser, Stagecoach, gave evidence.

**Q109 Chair:** Good morning, gentlemen, and welcome to the Transport Select Committee. Could you give your name and the organisation you represent, please? This is for our records.

**Peter Nash:** I am Peter Nash. I am the Policy Adviser for Stagecoach Group UK Bus Division.

**David Brown:** I am David Brown, Director General of South Yorkshire Passenger Transport Executive, here on behalf of pteg.

**Q110 Chair:** Thank you very much. What would you say is the main cause of traffic congestion?

**David Brown:** Obviously, it is quite a complicated issue, but it clearly relates to the volume of travel and traffic that is generated, as well as the actual capacity of the highway system to cope with different sorts of movements, be they cycling, motorcycling, public transport or car vehicles. But, also, there is the management of the highway system and the enforcement of traffic offences. All of those come together on top of a fairly complicated set of travel patterns, with people making movements into and out of towns and cities but also to a range of other destinations. It is quite a complex mix that contributes towards overall traffic congestion.

**Peter Nash:** I would agree with that. The only other comment I would add is that it is exacerbated when the capacity of the highway is restricted by roadworks, accidents or illegally parked vehicles.

**Q111 Chair:** Is there any difference between congestion in urban and rural areas?

**Peter Nash:** As we obviously run buses in both, the comment I would make is that in rural areas, if there is congestion, it tends to be fairly concentrated over a relatively short period, often when there is a peak commute going on, that sort of thing, whereas in urban areas we are finding that congestion is tending to spread not just over peak periods but often in the inter-peak periods as well.

**David Brown:** One of the things which we find causes sudden congestion in some rural areas is where something happens to the strategic highway network. If something happens to a motorway or an A road, that traffic then gets dispersed over locations which struggle to cope with that additional traffic volume.

**Q112 Chair:** How does this affect public transport, particularly buses?

**Peter Nash:** If you just take that last case first, it causes chaos if a major highway is closed and all the

traffic is then diverted on to ordinary roads. But the more general question from our point of view is that effective road and traffic management is absolutely critical if we are going to provide an attractive bus service. We literally cannot provide an attractive bus service if we are faced with congestion and delay. The reason for that is that it is so variable. We have to create timetables which deal with the worst case situation. Then, of course, on a good day, when there is not much congestion, the buses have to hang around waiting for time, which passengers find incredibly annoying because they just want to get to their destinations.

The other key thing is the actual cost of operation, because the slower the buses run the more they cost to run, which means the fares are higher, and that discourages passengers, so we get into this circle of decline. From our point of view congestion is a very important issue for buses.

**Q113 Chair:** Mr Brown, how serious is it in relation to buses and what can be done to deal with it?

**David Brown:** As Peter says, it is an issue, because bus travel and tram travel that also works on the highway is a key opportunity to address congestion. If you can get people on to good public transport services, it is reducing the number of vehicles that use the highway system. The highway system as well is often full to capacity, and that is becoming more and more so as travel patterns are dispersed. Understanding the movements of people and then investing to encourage journey times for people—not necessarily vehicles but for people—is absolutely essential, because, if a bus is carrying 20 people, clearly that is taking potentially 20 car vehicles off the road. It is understanding the people movements and not just the vehicle movements.

**Q114 Chair:** Is the solution more bus lanes?

**David Brown:** The work that we have done has demonstrated that it is a mix. In South Yorkshire we have a number of locations where it is very difficult to build more highway capacity. Building more capacity and putting in additional lanes is practically very difficult because roads run in valleys and so on. But bus lanes can be used either in key locations or along full routes. That is one opportunity. We have also invested in key hotspots. It might be a specific junction, travel planning or travel advice to people on the route to address things like peak journeys in school travel, to journey time. There are also measures



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such as prioritising and working with traffic light systems to make sure journeys move in a smooth flow. It is not just bus lanes per se, but they are part of the mix for addressing the smooth movement of all people.

**Q115 Chair:** Mr Nash, do the local authorities—the ITAs—work well with the bus companies in addressing this?

**Peter Nash:** With regard to local authorities generally, some do and some do not. We have some very good examples of local authorities that do their utmost to help us and we also have some which appear to do the opposite. To give you an example, Oxford and Cambridge are authorities that are very supportive. We have lots of bus priorities of various forms in Manchester. But you have probably read in the press, no doubt, that Derby is in the process of removing some bus lanes, much to the chagrin of the bus operators and the bus users. Birmingham has done a similar thing in the past, and I understand that something similar is happening in Bolton. So it is a very mixed picture.

**Q116 Mr Leech:** How much is the increase in congestion down to improvements in road safety measures? For instance, I can think of junctions in my constituency that have had pedestrian phases added to the crossings, which has had an impact on the amount of time that the green light is on. How much of the additional congestion in recent years is a drive to improve pedestrian safety?

**Peter Nash:** There is no doubt that one of the problems is that, as traffic grows, there is more and more call for pelican crossings and things to enable pedestrians to get from one side of the road to the other. To cite one example, the A6 corridor from Hazel Grove into Manchester is 10 miles long and it has 70 sets of traffic lights. A lot of those are just pelican crossings which are not co-ordinated with anything else, so they obviously hit vehicles randomly as you go along. In that sense, yes, the extra traffic has generated more road safety requirements which have slowed the traffic down further.

**Q117 Mr Leech:** Do we get the balance right?

**Peter Nash:** Part of it is to do with co-ordinating these things, because again in the example I quoted, there was some operational research, and it was established that the buses were spending twice as long delayed in traffic as they were at the bus stops. A lot of that is to do with those 70 sets of traffic lights. If they were all co-ordinated, it would probably mean that traffic in general, and buses in particular, would move a lot faster. Maybe we need to get a bit slicker about how we manage our traffic control facilities.

**David Brown:** It is a balance, because there are lots of demands on individual routes. In South Yorkshire, we have done work using funding from the Government congestion reward funding in tackling the top 18 routes in the area, because those routes tend to be the most congested, have the most buses on, have the worst air quality and the most road accidents. By putting together a package on a key route, we have managed to bring down road safety accidents to the

lowest level for a long time in South Yorkshire, at the same time as addressing congestion. It is trying to work through the interventions so that achieving one does not detriment the other.

**Q118 Mr Leech:** When local authorities decide how they are going to allocate resources to improve road safety, they look at accident spots and levels of pedestrian activity around schools and things like that to make a decision on where they spend their money. Do we need to look at a more strategic approach on whole lengths of roads rather than specific blackspots, in order to deal with both the issue of pedestrian safety but also to try and tackle the increased volume in traffic and congestion?

**David Brown:** As Peter says, it is about joining these things up. I know in a number of ITA areas all these strands are brought together so that you do not do the things that Peter is saying, where you are doing one thing to support one element such as pedestrians to the detriment of other road users. Getting that balance right is absolutely critical. In South Yorkshire, we bring together all of the bus operators, the highway authorities and the PTEs to get to one defined investment programme addressing congestion, growing the market and also addressing road safety issues as well. It is then about spending the money in the most sensible way but not at the expense of a different objective.

**Q119 Mr Leech:** Do transport authorities and local authorities do that joined-up thinking, or, ultimately, if a local authority have £50,000 or £100,000 to spend on improving a junction to improve road safety, do they make the decision or are they working properly with the ITAs or the transport authorities to make those decisions?

**David Brown:** In PTE areas, in metropolitan areas, I think there is a good set of working arrangements between the PTE, the ITA and the highway authorities. That is fairly straightforward in South Yorkshire where there are only 10 highway authorities. It is more complicated in Manchester where there are 10, but the combined authority in Manchester now have the ability to make sure the investment is done in the right way and is targeted against all the objectives in their local transport plan. I cannot talk about local authorities outside metropolitan areas, but I think there is a much greater level of joined-up working now between the highway authorities through their traffic managers and ITAs, who are now responsible not just for public transport but for the wider local transport plan itself.

**Q120 Paul Maynard:** Would you say there is any great difference between the use of bus lanes and the methods of tackling congestion in these larger cities, such as Manchester or Liverpool, and smaller cities such as Chester, which maybe have a more limited range of roads in and out and different traffic patterns? Is there any difference?

**David Brown:** I think there is because you have to look at every single location. Peter was talking earlier about some historic towns and cities which had very

constrained highway capacity and therefore have had to bring in different measures to address that.

In places like South Yorkshire, we have differences between Sheffield and Doncaster. In Doncaster, we have introduced bus lanes as additional road capacity, purely for buses, cyclists and taxis, whereas in Sheffield, in certain areas, that is more difficult just because of the topography. Therefore, we have had to concentrate on traffic light priorities in Sheffield. So it does vary depending very much on the individual locations.

**Q121 Paul Maynard:** Do you think that therefore makes it difficult for Government to prescribe specific solutions and say, "From henceforth bus lanes are the answer", for example? Is that a danger that we face?

**David Brown:** I would say that would be very prescriptive. It would not be very localist and would undermine the ability for local authorities and local bus operators to put in place solutions to address local issues, because it is not always as simple as a bus lane or traffic light priorities, but it is about enabling that to happen.

**Peter Nash:** I agree entirely that you have to find local solutions because they are local problems, but equally we have the Road Traffic Management Act 2004, which in my view has not been fully implemented with enough speed by the Government. That provides an overarching tool to ensure that the outcomes that everybody is seeking can be delivered, however they are delivered locally, because of this need for effective traffic management and all that goes with that.

**David Brown:** The Government had made funding available over a four-year period, specifically linked to the outcome of reducing congestion in the main urban areas, through the congestion reward funding. All metropolitan areas receive some funding for that based against a national outcome of reduced congestion in metropolitan areas. That was a good national intervention, but the solutions were then targeted locally and achievement of that performance was then rewarded with additional funding.

For us, that was very successful, because we put that money into measures to support bus travel but also to reduce overall congestion. That was successful and led to increases in funding. Now, despite the fact that background traffic levels have increased over that four-year period, the average person journey in the peak is lower than it was four years ago because we targeted that money, which is against a national outcome but was delivered on a local sub-regional basis.

**Q122 Paul Maynard:** Would you say that local authorities have demonstrated more innovative thinking in terms of park and ride schemes than in terms of the more basic commuter routes? I am thinking in particular of Mr Nash mentioning Oxford and Cambridge's park and ride schemes and also the Chester park and ride scheme. From my own experience, there has been more innovation in providing park and ride schemes in terms of how congestion is reduced than on other routes. Is that a fair interpretation?

**Peter Nash:** I think it is fair to say that. Our experience is that, where an authority is sufficiently farsighted to be able to look forward as to how they want people to move around their conurbation, where they have decided that the right package is to include park and ride, with less parking or perhaps more expensive parking in the central area, and a good quality bus service with bus priorities on the way in, it is perfectly possible to create the sorts of situations you have just mentioned. It is a bit ironic that, in the metropolitan areas, I do not think we actually have any big bus park and ride schemes, but that is probably more to do with the tensions between the various authorities because not every authority wants a park and ride site to take people shopping in the one next door.

**Q123 Chair:** Mr Nash, have you any evidence that is actually the case or is this an assumption you are making on the reason why there aren't park and ride schemes?

**Peter Nash:** I cannot give you a reason. All I can tell you is that there are no significant bus park and ride schemes in the metropolitan areas.

**David Brown:** There are two in Doncaster.

**Peter Nash:** With one exception—Doncaster. Corrected.

**Chair:** We will note the exception.

**Q124 Iain Stewart:** I would like to pick up on Mr Nash's comments about better co-ordination of traffic lights. Are you aware of any successful schemes in cities, either in this country or overseas, where they have used more intelligent phasing of traffic lights as a means to combat congestion?

**Peter Nash:** I know that SCOOT schemes are used quite significantly. Those are intelligent schemes which effectively optimise all traffic arrangements. Not being a highway engineer, I cannot tell you very much about them. But the sorts of things that David and I were talking about were systems which recognise a bus as it is approaching a set of signals and intervening in the cycle to ensure that the bus goes through. If you have a lot of traffic lights on a corridor, those are the things which can make a fundamental difference to the performance of the bus network.

**Q125 Iain Stewart:** Is there a specific city that you can recall which actually uses that?

**David Brown:** I know that in South Yorkshire and West Yorkshire there are very good examples of the benefit that has had. That was a fundamental part of the money that was spent using the congestion reward funding to link to the real-time system to do exactly what Peter says. In West Yorkshire, there are over 100 sets of traffic lights that have been aligned to prioritise, and there is a lesser number but a fairly sizeable number in Sheffield as well. There are good examples of where that has been done in metropolitan areas in the north of England.

**Q126 Iain Stewart:** Do you think that could be extended for all traffic? I have only heard anecdotal evidence, but in some cities in Germany, if you go

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down a key road at a legitimate speed, you will not be stopping at every traffic light and there will be a clear path through. Do we do that enough in this country?

**Peter Nash:** I can give you one example. Manchester Kingsway has been like that for many years. If you drive at the speed limit and you get a green light at the start, you go all the way through with green lights.

**Q127 Iain Stewart:** That then begs the question, if there are successful examples, how do we encourage other authorities to adopt that good practice?

**David Brown:** We found that it has worked where all of the buses operated by the main operators in South and West Yorkshire are equipped with real-time systems which track their movement and using that information to understand traffic flows is very powerful. It is an incentive for operators to make that information available. For highway authorities to act upon that information and invest in congestion is probably the route forward through punctuality improvement plans that the Department for Transport are looking at reinvigorating.

**Q128 Chair:** How widely is that done—the operators' use of real-time to influence traffic flows?

**David Brown:** It is available to operators. I think it should be available on a more open basis because, clearly, if it is identifying congestion hotspots, it is in everyone's interest that that is identified and an action plan put in place.

**Q129 Chair:** But how much is it used now?

**David Brown:** It is not used extensively on an open basis. It is not widely open to highway authorities and PTEs, but I think it should be.

**Q130 Julian Sturdy:** I just wanted to pick up on the park and ride issue we talked about. I am a York MP and we have a successful park and ride system in York. You talked about the issue of not having park and rides in other areas where there might be a conflict between local authorities. On bus priority and more general transport issues regarding congestion, is there an issue where local authorities do not work together? They do not co-ordinate their transport strategy.

**Peter Nash:** I think, again, the situation varies enormously. One of the underlying tensions that a lot of authorities face, particularly outside the metropolitan areas, is competition for retail trade. It is quite common that we have discussions with local authorities. They are very keen to promote buses and all the rest of it, but they will then turn round and say, "But we have got to keep our motorists coming to our town centres because, if we don't do that, they will go to the out-of-town shopping centre that is just over the boundary next door." So you have that tension to deal with, even though people who travel by bus do actually spend quite a lot of money in local shops. That is one issue.

In metropolitan areas it is different because, obviously, the authorities are working together and you have the ITA as well. I have to say, though, from our point of view as transport operators, we would prefer a one-stop shop for both highways and

transport, as it used to be between 1974 and 1984, because you would then have one group of politicians who are determining both the transport strategy and the highway strategy, and some of the conflicts that potentially could arise would not be there, but whether that will ever happen or not I am not entirely sure.

**Q131 Julian Sturdy:** With the way London is now configured, do you think that has helped transport policy here over a period of time?

**Peter Nash:** I am sure it has made life a bit easier for Transport for London because they can be clear what it is that they want to do and they have the means to deliver it. That does not mean to say it is easy for them, because some of the issues that you have with access and loading and unloading and all these sorts of things still have to be faced, whoever the authority is.

**David Brown:** I think there is a greater recognition now that travel to work areas or travel to shop areas are different from local authority boundaries. People travel from Chesterfield to Sheffield. We know that; it happens. Just because there is a local authority boundary halfway along the line should not mean that you should not plan for that, but it does mean greater co-ordination between local authorities.

**Q132 Julie Hilling:** Can I ask about traffic calming measures and what effect you think that has particularly on bus transport? I am thinking not just about humps but where bits of kerb come out and all those sorts of things, I guess, in two areas. One is in terms of congestion and the other is in terms of safety, with regard to those measures for public transport?

**Peter Nash:** Road humps are a bus operator's nightmare. Buses are not designed to go over road humps. If you have the misfortune to ride on a bus that goes over a road hump, it is a most unpleasant experience. I know that some of them are designed so that the bus straddles them, but you only have to have a parked vehicle and it does not straddle them; it has to go over them. We do not like road humps at all. That is not to say we do not support traffic calming measures—we do—but anything but road humps. I understand that, in Brazil, they just have a very simple speed camera on a pole and that is it, with a sign saying 20 or whatever the speed limit is. I think we have got to get more sophisticated than road humps. I know the emergency services hate them as well, particularly ambulances.

**David Brown:** We found that where there is a request for traffic calming tends to be about a perception that there is a danger as opposed to actual evidence that there is a danger in that area. We have a number of locations where 20 mph speed limits are being put in place in residential areas in particular to address that. We found that we have had great success in reducing the number of people killed or seriously injured in South Yorkshire, but we feel we have almost got to the end of the engineering solutions. Based on evidence, there are very few hotspots of accidents in which to put further engineering solutions. It tends to be a lot more about behaviour and targeting key segments that are driving unsafely or speeding or whatever. We are spending a lot more money on behavioural programmes targeted at key people rather

than putting more and more engineering solutions in which then conflict with other road users.

**Q133 Julie Hilling:** What involvement do bus operators or the executive have with those engineering solutions? I have had conversations with local haulage operators who are really concerned that some of the measures that are put in place mean that it makes things very dangerous for lorries. Is that the same issue for buses and are you involved in those discussions?

**David Brown:** In most metropolitan areas, there is a road safety partnership which looks at the full gamut of identifying what the issues are and then putting in place remedial action. The local authorities are on there, we are on there and representatives of bus operators are there. It is quite a wide-ranging issue. Initially, that targeted whether there was evidence of accidents actually happening and then putting engineering solutions in there, but now, as I say, it is more addressing behavioural issues associated with certain segments of society, certain types of drivers, and so on. That is more of an education programme. But we do have a mechanism for dealing with local assemblies, community assemblies, to understand their perceptions of road safety issues so that we can address those in low level schemes with them.

**Q134 Chair:** Was the M4 bus lane a success?

**Peter Nash:** Was it a success?

**Chair:** Yes. Should that be copied somewhere else?

**Peter Nash:** When it was there it was. It is certainly our view that the decision to remove it was mistaken, because all that succeeded in doing was delaying bus and coach passengers getting to Heathrow, and there has been very little benefit for any other road users.

**Q135 Chair:** Would you like to see that idea copied on other key roads?

**Peter Nash:** I think it depends very much on what the volume of bus and coach movement is. Clearly, if it is not high, it probably would not be acceptable to other road users. But where it is high, potentially using hard shoulders for PSVs with the proper overhead permission arrangements would probably be a very good thing.

**David Brown:** Clearly it is not in a metropolitan area, but the objective analysis I have seen seemed to say that it was successful on a number of criteria.

**Peter Nash:** Could I just make the additional point that the thing about bus lanes is that, if they are properly designed, they do not delay other traffic? All they do is they enable the bus to queue jump to the pinch point which has generated the congestion in the first place. Well-designed bus lanes usually stop before they get to that point, so the capacity at the pinch point is not reduced. As long as it is done like that, then there is no actual delay to other traffic. I can recall an example in Newcastle many years ago when a bus lane was put in on the Great North Road. They did before and after studies. The traffic flow was exactly the same afterwards as before, but the buses jumped the queues.

**Q136 Chair:** Can you give me any examples of a well-designed bus lane and a badly-designed one?

**Peter Nash:** The particular one I have just mentioned—the Great North Road one in Newcastle—is still there. I would say that was a good one. Badly-designed ones tend to be ones that are very short and do not achieve anything.

**Q137 Chair:** How common is that?

**Peter Nash:** Not very common, to be fair, but sometimes, in an attempt to try and achieve something, somebody has put in a very short bus lane which at the end of the day has not really delivered very much.

**David Brown:** Again, it is important to understand that, if you have capacity to put in an additional lane, if you then are putting vehicles in there that are stopping and starting, that is a positive benefit for the other road users. Cars are not stuck behind the bus as it stops and starts; they are free to move. We have a number of instances where the bus journey time is far more reliable now there is a bus lane in place, but so is the car journey. It is much more reliable because it is not stopping and starting and trying to overtake buses as they stop and pick passengers up, so there are benefits across the piece. Of course, keeping all traffic moving in a steady and reliable way is good for the environment. Cars and vehicles stopping and starting is extremely environmentally unfriendly. The smooth flow of traffic is beneficial in those terms as well.

**Q138 Julie Hilling:** I want to ask about other users using bus lanes, particularly again hauliers who have been saying why can't they use bus lanes. It is particularly the lorries that are doing deliveries into town centres and things. What is your view on them and motorbikes and anybody else using bus lanes?

**David Brown:** Again, I think local solutions are required. I know in South Yorkshire we allow taxis, emergency vehicles, cyclists, and on some occasions motorcyclists, into bus lanes. If you get to the point where you are putting more users into bus lanes than you have got left outside the bus lanes, they become ineffective. Road hauliers that are using it to deliver would be counterproductive completely because they would then be stopping the traffic in bus lanes, which would all have to pull out to overtake, stopping the rest of the traffic. If it is about congestion, moving single occupancy vehicles into bus lanes again is counterintuitive because it is about giving priority to vehicles that are holding traffic or carrying more people. Somebody in a van with one person in it that is going to stop and deliver would be counterintuitive, as far as I can see.

**Q139 Julie Hilling:** What if they are not stopping to deliver? What if it is about that journey from the outskirts into the city?

**David Brown:** It is very difficult then to differentiate between somebody in a van going into a city centre to do business and somebody in a business car going in to do business, because they are one vehicle with one person in it. With regard to a bus lane, why would you give priority to those people over other people?

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**Q140 Julie Hilling:** Because there is that additional cost to the economy and the cost of goods and all the rest of those things if vehicles take more time.

**David Brown:** Then you get into quite a complicated formula as to whose time is more valuable. Is it somebody in a van getting to the city centre making a delivery? Is it more important that they get there for their economic benefit compared to people attending business meetings, or whatever it might be? It just becomes very complicated. The other issue that we found on enforcement is that, the simpler you can keep the use of bus lanes, the better it is to enforce. You start to get into difficulties if you open up bus lanes to other categories, first, in trying to demonstrate

it on the signage, but secondly, other people then think the bus lane is not being enforced because loads of other people are being allowed to go into it.

**Peter Nash:** I agree with that entirely. I have had experience of what became a no-car lane, again in Newcastle upon Tyne. From the bus operator's point of view, the benefits were lost because we went from heavy goods vehicles to light goods vehicles to white vans, and it amazed me how many white vans were on the road. It finished up with the bus queuing behind all of these goods vehicles of one sort and another, and it might almost have been better off in the car lane alongside it. So I endorse entirely what David said.

**Chair:** Thank you very much, gentlemen, for coming and answering our questions. Thank you.

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### Examination of Witnesses

*Witnesses:* **Dave Turnbull**, Legal Director, National Joint Utilities Group, **John Pettigrew**, Chief Operating Officer of UK Gas Distribution, and **Roger Culpin**, Chair, Joint Authorities Group, gave evidence.

**Q141 Chair:** Good morning, gentlemen. Welcome to the Committee. Could you identify yourselves, please, with your name and organisation? This is for our records.

**John Pettigrew:** I am John Pettigrew. I am the Chief Operating Officer for National Grid's Gas Distribution business in the UK.

**Dave Turnbull:** Good morning. My name is Dave Turnbull. I am representing the National Joint Utilities Group today.

**Roger Culpin:** Good morning. I am Roger Culpin. I work for Durham County Council but I am representing the Joint Authorities Group today.

**Q142 Chair:** Thank you. There is considerable legislation and accompanying codes of practice addressing the issue of congestion caused by street works. How would you say this is working and where are the problems?

**Dave Turnbull:** The NJUG would say that it was working tolerably well. There is probably more work to do, and together with a lot of joint initiatives that we have undertaken to supplement the legislation with our colleagues in JAG, the situation is reasonable at the moment.

**Roger Culpin:** I would agree with Mr Turnbull there. Our authorities do work with the utilities to produce the legislation. We write the codes of practice and we work with DfT to produce everything. It needs a few tweaks but we see it working reasonably well at the moment.

**John Pettigrew:** We think it is efficient. It is quite difficult because there is no common measure of congestion or the root causes of congestion. Therefore, to link the different parts of the legislation and what impact that is having on congestion is quite difficult. But I think there are other things we can do to improve the implementation of the existing legislation to help the congestion.

**Q143 Chair:** Do you think that local authorities are using the powers available to them sufficiently wisely?

**John Pettigrew:** Certainly from our experience we see a spectrum of implementation across local authorities. Our view is that, with more co-ordination, particularly at the planning stage, it could be more effective. But if we look at our experiences in our regions then we see different utilities applying it in different ways, and perhaps in an inconsistent way, which makes our ability to minimise the impact on congestion more difficult.

**Dave Turnbull:** I think we would agree with that. There are a number of authorities that are very proactive in terms of co-ordination, in seeking and using information, and having regular meetings, particularly in relation to very large and disruptive works. But that is not universal; it very much depends on individual authorities.

**Roger Culpin:** There are over 170 highway authorities throughout England, and of course you are going to get a broad spectrum across them. You get very proactive authorities like Transport for London in the London boroughs. You get the smaller authorities, Hartlepool or Blackburn, for example, that are not proactive in that way. It is horses for courses, and where the congestion occurs then those authorities tend to target those particular areas. There is a broad spectrum across all the highway authorities.

**Q144 Chair:** Mr Culpin, do you think we have enough information to be able to assess the effectiveness of existing legislation?

**Roger Culpin:** No, we have not. That is one problem that we do have. I would like to sit at my computer, press a button and get the information out, but unfortunately the systems that we have do not allow us to do that.

**Q145 Chair:** Where are the gaps?

**Roger Culpin:** The gaps start in the legislation itself. The legislation does have a few gaps in the codes of practice and the way that the noticing system works.

**Q146 Chair:** Can you give me any examples of where the problems are?

**Roger Culpin:** For example, the big problem we have is that, if someone serves a notice, for example, of emergency works, the highway authority might not know about those works until well after the works had been finished off because of the time it takes for the notices to come through the system. That is one of the problems.

**Q147 Chair:** Can I just stop you there? Can you explain to me again why that type of problem arises?

**Roger Culpin:** The legislation gives utilities periods over which they can serve notice on a highway authority. If there is a gas main escape, which is an emergency, the gas company would go in and deal with that. If it happens after 5 o'clock on a Friday, the gas company does not have to tell the highway authority until before 10 o'clock on the Monday morning. The highway authority might not be aware that there is a problem within its own area.

**Q148 Chair:** How often does this difficulty arise because of emergency action needed and how much is it on routine work where there is not proper co-ordination?

**Roger Culpin:** The routine work also works similar to that because a utility may tell a highway authority it is going to go on a certain day, but within the scope of the periods over which it can look at it can actually start the work probably two or three days, or even five days, after it has told the highway authority it can go in. We have to look at those windows when we are doing co-ordination of works because we cannot get an exact time of when a utility is going to go in to do those works.

**Q149 Chair:** Because they do not notify you of that.

**Roger Culpin:** They notify us with a date of when they are going to go in and then the next notice is a notice to tell the highway authority that they are already in, but that notice can be served up to 24 hours after the company has started the work.

**Dave Turnbull:** Could I make a couple of points there? The dispensation we get with regard to retro-noticing, two hours retrospectively, is very much caused by the fact that there are issues with safety. My colleague will talk about gas, but quite clearly we go in there for emergencies. The primary requirement then is to protect the public and get in there and do it. We do serve the notices at that point within two hours. The reason that Roger used the example of a Friday is because quite often the highway authorities do not staff their offices during the weekend. There would be no point in serving a notice after work has finished on Friday because there is quite often not going to be anybody there until Monday to make any sense of it in terms of traffic disruption. Also, there is agreement between us over the amount of latitude we have when we start works. We do not do that outside of the controls. We do it with agreement with them. The code of practice which stipulates that is very much a joint code of practice that was agreed between us. It does not apply to the very large disruptive works. It tends to be much more targeted on the small works that are in side roads and do not in themselves cause a great deal of disruption.

**John Pettigrew:** To give you some volumes, National Grid makes about 400,000 notices a year, of which about 50% are as a result of emergency calls where a member of the public has called us and said they can smell gas. We have about 1.9 million calls of that nature. We respond to around 600,000 of them, and about 75,000 then represent actual work where we physically dig the road up to address a leak. For all those works, we are obliged to give notice within two hours of starting the job of those emergency works, and we follow that notice. For planned work, which is the rest of the work National Grid does, there are different time frames set out, depending on the size, magnitude and impact that job will have. Some are greater than three days; some are greater than 10 days; some are actually 3 calendar months in advance. The effectiveness is really about how well we co-operate with the local authorities. As I said earlier, there is a range and spectrum about how much that co-operation actually occurs at the pre-planning stage.

**Q150 Julian Sturdy:** Just going back to the routine work, am I correct in saying that, when you are doing a routine job, some of that traffic management in certain areas is carried out by the local authority, depending on the area, and some is carried out by the utilities themselves? Is that correct?

**Dave Turnbull:** The set-out of the site in terms of safety is always carried out by the utility, because obviously we have a liability for the safety on site. We would liaise with our colleagues closely with regard to impact on traffic lights. I was listening carefully to the discussions you were having earlier. Where traffic lights are affected, there is a process whereby we agree with them maybe to suspend some traffic lights or to put in some traffic lights so that all things are co-ordinated to very much focus on safety. But the actual prime responsibility for the setting out of the signing and guarding and all of the traffic management on the site is with the utility.

**Q151 Julian Sturdy:** When I am talking about traffic management, I am talking about literally the control of traffic flow such as the lights which go on the more major works. Am I correct in saying that sometimes local authorities and sometimes utilities manage that? It depends how proactive the local authority is in that particular area.

**Roger Culpin:** If we are talking about temporary traffic signals, the utilities are obliged to inform the highway authority they are going to put in shuttle work. If it is a junction or three-way working or multiphase working, then we have to look at it and we are in a position where we can dictate how, when and what works are carried out, to try and keep an eye on congestion in those particular areas. In general, as Mr Turnbull says, the utilities are in control of their own traffic management. If it does cause severe problems, then we do have powers within the legislation to get things changed so that we can relieve or mitigate congestion in certain areas.

**John Pettigrew:** In our experience, in the dialogue and conversations that go on before the job we will have conversations with local authorities and they may set conditions on our permit to work, specifically

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around road traffic. We have instances in London where we have local authorities who will insist on using a manned traffic light system rather than an automated system. So we do dialogue with them and discuss that with them before the work starts.

**Q152 Julian Sturdy:** I would like to follow up on that, because I think that point is quite important. Obviously, with anything like this, when you are disrupting traffic, you could argue that the local authority has the local knowledge and expertise over how traffic flows between this particular junction or down that particular road, which the utility, whichever it might be, will not. My point is that the local authority potentially needs to have more input. Do you feel that the local authority potentially needs to have more input into that traffic management process so that we can minimise disruption?

**John Pettigrew:** From our perspective, the most effective jobs are those where we get most input and co-operation at the pre-planning stage. If there are specific concerns about a particular road and the way that we would particularly do a job, to get that information up front and make it part of the permit conditions so that we understand that and can work around that is very important to us. We find that, the more dialogue we have at that stage, the more effectively and more quickly we can do our works and then get off the street.

**Dave Turnbull:** That process is particularly intensive in London and, I guess, other city centres with regard to the amount of scrutiny and interaction there is before a job gets started. With Transport for London, we would submit a proposal and they would come back and say, "No, we don't like that. We want you to move that there. That is going to have an impact on that junction." There is a very strong interactive process before we agree, in diagrammatic form quite often, what we are going to do on the street. There is already a very rigorous process in place, particularly, obviously, in city centres where the maximum traffic flows are.

**Roger Culpin:** Communication is the key. It is communication both ways, between the utilities and the highway authorities, in deciding the extent of the works, and it is a perspective of how much we are going to find a congestion that could occur. It is working together. It is all about working together to try and minimise the congestion. With the larger-scale works, the major projects that are there, yes, it is great because we can have a look at those over three or four months, or even longer, over a year, and we can explain to the public through publicity and try and mitigate congestion in that way. It is the immediate works, the emergency works, that cause the problem, and we would like the utilities to contact us as quickly as possible. I have talked about the Friday to Monday. We are contactable if there is a serious problem with road closures and the like. We are contactable and we do react to that. You are quite right about local knowledge, and we do work with the utilities to try and help them out where they are experiencing problems on the roads and congestion is occurring.

**Dave Turnbull:** In terms of the contacting, in the voluntary code of practice that we devised between us

and the Government endorsed, there is a provision for making a phone call immediately the works are set up. Mr Culpin was mentioning a two-hour retrospective legal requirement, but there is a requirement in the code of practice, which I hope that all of our members are following, to phone up immediately to address the very proper concerns that Mr Culpin raised.

**Q153 Chair:** Can we then perhaps clarify what you were saying before, Mr Turnbull, because you were indicating that, if there was a problem late on a Friday, local authorities were closed down for the weekend so there is nothing you could do? That is not quite right, is it?

**Dave Turnbull:** We are sending notices, and obviously the notice is going to go through in electronic form and be recorded in the computer system somewhere in the office. We do not know whether somebody is there to get a computer going and check what is on the system. Of course they will have people available during the weekend to deal with emergencies.

**Q154 Chair:** But, Mr Turnbull, what you actually said before was that there was no point in sending this information because local authorities were shut down. Mr Culpin, it cannot be right, can it, that no local authority can receive information and act on it over a weekend?

**Roger Culpin:** What tends to happen is that, yes, if it comes over the weekend, it is a notice that is served on the highway authority to say that there are works continuing in that particular area. If it starts to cause a problem with serious congestion, then highway authorities have staff available. They are contactable, because we have our own emergency numbers, and we can come out and assist utilities in those works, but in general, as Mr Pettigrew has said, if there are several emergencies within an area, not every one needs to be dealt with, because not every one causes congestion.

**Q155 Chair:** I accept that, but what I am concerned about is perhaps a lack of clarity over what the position actually is. What Mr Turnbull said gave the impression at least—maybe it is our misunderstanding—that there was no point in trying to contact the local authority because no one would be there. I am saying that cannot be right. Do you act on that assumption?

**Dave Turnbull:** Perhaps I can clarify that to an extent. Many authorities around the country do not have, per se, people in offices looking at computer systems, but they will always—

**Q156 Chair:** No, no. Mr Turnbull, I am asking you a question. In the work of your organisation, is there an assumption that local authorities might not be able to respond, or do you send the information in any case in the knowledge that some may and some may not respond?

**Dave Turnbull:** We will send the information where we can.

**Q157 Chair:** What do you mean “where we can”?

**Dave Turnbull:** Sorry, we always can. We always send the information. It is the phone call which is critical, as Mr Culpin said, to establish immediate contact with somebody to say, “Look, we are in a potentially disruptive position here. We will send you the notice as the law requires within two hours, but perhaps we should have a discussion now about minimising disruption.” A phone call, although it is not legally required, is very much the key piece of communication.

**John Pettigrew:** For the 600,000 calls that the National Grid responds to every year, just to be clear, we do notify within two hours of starting work. Our performance in 2010–11 was 98.6% compliance in sending notices. Just to be clear, there is no presumption that there is no point in making the notice. We make the notice every time.

**Chair:** Thank you for clarifying that.

**Q158 Paul Maynard:** One of the most frequent complaints I tend to receive as a constituency MP is the aftermath of utilities roadworks where the work has been completed to what is, in the view of many, below standard. The work has degraded rapidly and has necessitated further roadworks on the part of the highway authority, adding to congestion and disruption. Could any of you just talk me through how you try to ensure that the initial work is done to a sufficiently high standard and how you manage the process of correcting any substandard works at a subsequent point?

**John Pettigrew:** If I could start, from the perspective of the National Grid, we undertake all work to a given standard. The local authorities then inspect that work. If there are any defects that they find, then they notify us of those defects and we go back and we do it to the standard that is expected. Our contractors who do the reinstatement work for us are all incentivised to ensure that they do it to that standard and are penalised financially in the event that they fail to meet certain standards. That is how we approach it.

**Q159 Paul Maynard:** Do these standards reflect the quite severe winter weather we have had in recent years, or do they predate those episodes of cold weather?

**John Pettigrew:** I believe the standards reflect more about the condition of the surface when you leave it in terms of its strength and aspects such as that rather than being weather-related. We have set up a group which has highway authorities and utilities working together to do a review of the overall process of the checking of the standards themselves. I am sure Dave can add to that.

**Dave Turnbull:** Indeed we are. We are setting up a working group. But I would like to make the point about degradation of roads in relation to a specific example of the town where I live—Milton Keynes. To my knowledge, it is the only town in England and probably in Europe that was specifically designed with motor transport in mind, in the late 1960s. As a result of that, there is virtually no utility apparatus in the carriageway whatsoever: 99% of it is in very wide grass verges, which some of you might drive past

periodically. But in the last two winters the amount of dilapidation of the running surfaces has been absolutely phenomenal, basically because the road is worn out. It is 40 odd years old and was not designed to have that sort of life cycle. Yes, potholes and reinstatement works are a factor, but, in our view, a very much more significant or equally significant factor is the fact that the roads basically are not designed to take the volume and weight of traffic that they now have to accommodate.

**Q160 Paul Maynard:** I accept that entirely, but I am specifically trying to consider the impact of utilities works and then subsequent repair roadworks that may add to congestion. In the case of National Grid, what proportion are found to be substandard upon completion?

**John Pettigrew:** I do not have that statistic with me. It is not a significant proportion of the work that we do, but I can certainly get you that data.<sup>1</sup>

**Roger Culpin:** Can I just expand on that? All the utilities work to a specification for the reinstatement of the openings in the highway. The latest specification came out in October last year, so they are working to recent codes on reinstatement of excavations. What tends to happen is that the highway authorities are paid to inspect a certain number of those reinstatements on an annual basis. There is a two-year guarantee on the reinstatement, and if anything happens within the two-year guarantee, then we defect the reinstatement and the utility has to come out and rectify it.

If, after two years, we find that there is a problem and as a highway authority we can show that the excavation has not been reinstated in accordance with the specifications, then we can go back to the utility and we can get them to look at it again. But to go through that process is very costly, and on a number of occasions we have found that we have gone through the exercise and found that the reinstatement has not been put in in accordance with the specification. Therefore, out of the public purse, we have to rectify those areas or work on those areas.

**Q161 Paul Maynard:** Do these sets of circumstances, in your view, add to the congestion problem significantly, or is it a minor problem?

**Roger Culpin:** The reason it does add is that the utility has the opportunity to put in an interim reinstatement before it completes its permanent reinstatement so that means the utility has to visit the area twice. We would like to see what we would call first time reinstatement, which is a permanent reinstatement going in. We are finding a variance probably of between 6% to 15% failures, depending on the utility and the type of activity. A lot of it is to do with the supervision of a utilities contractor, which is to ensure that they carry out the works in accordance with the various specifications that are there and thereabouts.

**Q162 Mr Leech:** Mr Culpin, what proportion of reinstatements are local authorities expected to inspect?

<sup>1</sup> See supplementary written evidence (ETM 28a)



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**Roger Culpin:** It is based on the amount of work that is carried out as an average of the previous three years. For example, there are a number of units that we count. We can check 10% of works which we will call live works; we can inspect the sign lighting, the guarding and traffic management. We can inspect up to 10% of reinstatements—

**Mr Leech:** Did you say up to 10%?

**Roger Culpin:** Up to 10%. That is paid for by the utilities. If we had the money we could inspect 100%, but, because budgets are tight, the utilities pay for highway authorities to carry out 30% of the works that they carry out during a year. It is based on 10% of traffic management, 10% of reinstatements which are six months old and 10% of reinstatements that have nearly come to the end of their guarantee period.

**Q163 Mr Leech:** This is slightly off subject. So you are suggesting that you are not actually paid to make sure that all the reinstatements are done properly.

**Dave Turnbull:** No, we are very much paid to make sure. As Mr Pettigrew suggested, our contracts are incentivised to do right first time reinstatements and to a very high quality. We are looking to improve. There is still some room for improvement. We think we are at a fairly high level, but there is room for improvement, so we are setting up, or we have started to set up with our highways colleagues, what is called a national coring programme, where we are going to go out and do cores at various sites, checking the quality of both the materials and the amount of compaction, because quite often it is materials and/or the amount of compaction which indicate whether or not a trench or a reinstatement will survive over a long period.

**Q164 Mr Leech:** Once you have inspected them, in what proportion of the reinstatements do you then have to get a utility to return to redo the work?

**Roger Culpin:** It varies. It is between 6% and 12%. It is in that order. It also depends on the type of—

**Q165 Mr Leech:** It is perhaps one in 10?

**Roger Culpin:** It is probably one in 10 that you would find would be defective.

**Q166 Mr Leech:** Yet you are only inspecting one in 10.

**Roger Culpin:** We are inspecting one in 20 overall—I mean 20%, so that would be one in five.

**Q167 Mr Leech:** It would be fair to say that there are probably a very large number of reinstatements that are not being done correctly, where highway authorities have to do work again, probably at the highway authorities' expense.

**Chair:** Was that a yes, Mr Culpin, because nodding won't go on the transcript?

**Roger Culpin:** Yes, it does tend to happen. Because there is a two-year guarantee, we have two years to establish whether that reinstatement is a failure or not. We are paid to inspect 10%—well, it is actually 20% of reinstatements. We are paid to do that by the utilities. We also have to carry out statutory safety inspections ourselves of our own highways, and if

there is a problem then they are picked up. Also, we get reports from members of the general public and the police where we have reinstatements that have started to fail.

**Q168 Mr Leech:** I have one last question. Would it be fair to say that, if you were paid to inspect every reinstatement, there would then subsequently be a reduced cost to the local authority but also, probably, a bigger incentive on utilities to do the job right in the first place?

**Roger Culpin:** That would be the case, yes.

**John Pettigrew:** Forgive me, but some of those numbers that Mr Culpin is quoting around 10% I do not recognise. National Grid digs 1 million holes a year. We certainly do not go back and do 100,000 reinstatements again, as a one in 10 ratio. It is significantly less than that. We have, again, different relationships with different local authorities about their proactivity to come out and do inspections, but certainly, when they come out to do the inspections we do cover the costs of doing that, which is in accordance with the legislation. If we find a defect, then we put it right immediately. It is part of our economic regulation to do it right first time. That is the most efficient thing that we can do. If we have to go back at our expense, then we have to pay for it.<sup>2</sup>

**Q169 Chair:** Mr Turnbull, do you have any comment on this?

**Dave Turnbull:** I have just one point to make on that. Irrespective of what is paid for, if an authority targets a particular utility, goes out and checks a lot of reinstatements and finds they are defective, we then have to pick up the cost. Forget about any sample inspections. If a defective reinstatement is discovered by an authority, the utility picks up the entire cost of putting that right over and above the sample inspections that Mr Culpin was talking about—the 20% to which he was referring. There is a fallback position to protect the authorities with respect to failure of reinstatements.

**Q170 Julie Hilling:** My question sort of follows on from that. There is a perception out there that one week the gas will come along, the next week the electricity will come along, and the next week the water. Has that been solved now, or is it still the case that there is not co-ordination in terms of who is digging holes in the road at different times?

**John Pettigrew:** Our experience is that there is co-ordination. I think there is more opportunity for further collaboration and co-ordination. We can cite examples. Recently we did a significant mains replacement in the Worcestershire area, working with the local authority. It was identified that Severn Trent also needed to work in exactly the same highway and we were both using exactly the same contractor. So we all worked together to minimise the impact of that congestion. But it was because of the proactivity of the local authority to bring us all together that we were able to do that.

One of the areas for me in terms of improvement is to do with better co-ordination and visibility of all

<sup>2</sup> See supplementary written evidence (ETM 28a)

work that is going on, both from the point of view of utilities as well as the local authorities and the highway authorities, to allow the opportunity to sit down at the pre-planning stage and work out where there is an opportunity to co-ordinate much more effectively.

**Q171 Julie Hilling:** Are there regulations in place that say you should be doing that?

**John Pettigrew:** My understanding of the legislation is that the local authorities have the duty to co-ordinate all the various works in the streets and our duty is to co-operate. For example, we try and make sure that all our planned work is put on the London Works Register, which gives everybody an opportunity to see the visibility of the work that we are doing. That register is not used by all utilities, highway authorities and local authorities. So what you see is an incomplete picture and therefore it must be very difficult to co-ordinate when you do not have that visibility.

**Dave Turnbull:** NJUG very much encourages its members to go beyond the statutory requirements and to take co-ordination to another level. An example in London is that Transport for London have had several what they call “workathons”. Upper Thames Street was done some time ago, where they actually closed the street down for a period of time and all the utilities went in and did some routine work that they needed to do during that closed period, saving a number of days rather than if they had gone in sequentially and done the work. So there is a lot of active work going on with certain authorities to improve that situation.

**Roger Culpin:** We hold quarterly co-ordination meetings with the utilities. This is back to communication again. We ask for works programmes for at least three to six months ahead so that we can see what is going ahead. Then we can put those together and form a plan. If there are two or three utilities that want to go in, in a particular area, we can also look at our own roadworks and we can try and work those in. That would minimise the inconvenience to people within that particular area. We can concentrate those works in a specific period, all together, instead of one coming in after the other. The co-ordination process does work in that respect.

**Q172 Julie Hilling:** But should there be more legislation that says you must co-ordinate so that you do what you have just said as the best example and you do not do what people think you are doing?

**Dave Turnbull:** Because there is a statutory requirement on utilities to co-operate under the New Roads and Street Works Act, we follow that. I believe the legislative framework in terms of co-ordination is absolutely adequate as it exists at the moment. There is a duty on the highway authority to co-ordinate, and there is a statutory duty punishable with a fine on utilities to co-operate with that co-ordination process. Obviously, it is much more intensive with the bigger, more disruptive works. Mr Culpin was talking about advanced notice. Those large works, such as the mains replacement programmes, the big disruptive jobs, are talked about, discussed and planned and the disruption minimised much further in advance.

**Q173 Chair:** Mr Culpin, it has been suggested to us that local authorities do not use all the powers they have. Would you agree with that?

**Roger Culpin:** I would tend to agree. There are many powers that they can use. There are quite a lot, and, where they have to, they do tend to use them. Unfortunately, where it goes beyond the point to take companies to court, that is where problems tend to lie. One of the problems with legislation, is that—I am not a lawyer—there is a lot of lawyer speak, and, where they say “to their reasonable satisfaction” or “use their best endeavours”, that is all part of the legislation. We are having to rely on utilities to use their best endeavours and it is just proving that before we can take it any further.

**Q174 Chair:** Is the solution to that more regulation or more stringent action?

**Roger Culpin:** I would not say it is more stringent legislation. It is taking out, I would say, the woolly areas that do lie within the legislation, although the highway authorities do work with NJUG and the utilities to try and overcome these problems. If there are any particular problems that we are experiencing, we tend to work together before we get to the stage where we go to the courts. We do have procedures within HAUC(UK), if there is a problem, that we can have a dispute and we can resolve it without going to court.

**Q175 Iain Stewart:** In your experience, when you have given advance notice of street works, is that information effectively passed on, on one level, to the sat-nav companies so that they can alert drivers in the area and also local transport authorities so that they can reroute buses? Is that information effectively passed on or are there improvements that can be made?

**John Pettigrew:** From our perspective, it is worth setting out the different types of notices that we do, because they are all in very different time frames. For the majority of our planned work, which is replacing the old cast iron mains, we have long visibility of that work. We know what we are going to be doing next year today, and therefore we can make that visible to local authorities. We have to put three permit applications in advance of work starting<sup>3</sup> and we have a lot of dialogue with the local authorities and the other parties. So it is very clear. People have that information and can use it as necessary.<sup>4</sup>

At the other extreme, of course, we are responding to an emergency. If we have an emergency call come in and we have to respond to it within with one hour and we could be starting work within that hour, therefore we make the notice using EToN, which is the electronic noticing process. That goes into the local authorities and there is a lot less communication at that point. If it turns into a significant job, which can happen, we then revert to the normal process and start

<sup>3</sup> Note from witness: First notice 3 months in advance of work starting, second notice 10 days in advance and third notice 3 days in advance.

<sup>4</sup> See Appendix 1 of supplementary written evidence (ETM 28a)

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the discussions and the planning to repair the emergency leak that we have identified.

**Q176 Iain Stewart:** In terms of alerting drivers, just focusing on the sat-nav technology, is there a mechanism that that would be instantly transmitted to say the high street has two lanes closed today?

**John Pettigrew:** Not as far as I am aware.

**Roger Culpin:** If I could just expand on that, there is no opportunity for real-time roadworks or street works because of the system that is employed to inform highway authorities in the time frames that have already been explained. Except for emergency works, which we would expect to hear within two hours, we would not know if anyone has gone in to start work probably until a day or so after works have already started, so that does not allow us to have computer systems that will automatically have the big screen that would say, "Road works have started here." We have to put a proviso on to say that road works could start here after this date or street works could start within five days of this particular date, or whatever. We are at the will of the utility and their contractor when they want to go in to do those works. There is no opportunity for what I would call real-time street work display, which would assist the sat-nav companies and the likes of those informing motorists of congestion, and even bus companies to that extent.

**Dave Turnbull:** I would point out that the major jobs—the really disruptive ones in the major roads—do not have that degree of flexibility in starting. The flexibility tends to be on very minor works on the minor roads. The system does not treat all works the same. It recognises that some works are potentially more disruptive than others.

**Q177 Iain Stewart:** Do you think this is an area where we should do some further investigation and there should be better real-time information given? Is that practical?

**Roger Culpin:** It is going to be a lot of work and I would expect quite a lot of expense as well, but certainly, if we could work to real-time street works, that would be a benefit to all road users, because people can appreciate what problems are occurring there. Also, the communications can be such to warn people to avoid certain areas. With the way that the systems are set up at the moment, it is very difficult to get any real-time street work activity.

**Q178 Chair:** What about lane rental? What impact would that have?

**Dave Turnbull:** We have concerns over lane rental. We have many layers of legislation. We now have the section 74 road run charges; we have permit schemes; and now we have a third layer, which is lane rental. Our view is that probably the law of diminishing returns is going to apply and you are not going to constantly get benefits from these incremental changes to the law. Having said that, if the Government are minded to go through with lane rental, obviously we support it and we will work with our colleagues to

make sure that it works well. We would very much hope that it is, as currently intended, restricted to very small areas—pinch points in London have been talked about—which are very sensitive junctions where disruption would have a massive effect on the whole surrounding area. That is the current intention.

If it were to be rolled out across the entire UK, we have calculated that it would cost something like £2.5 billion on current bills, which would add around £68 to every utility bill round the country that every person has to pay. We do not think indiscriminate use of it is very sensible. I think Transport for London are likely to be at the forefront. We will work with them to develop a proportionate scheme, again making sure we have the right measures in place right from the start to check that we are getting some benefit from it.

**Q179 Chair:** Mr Pettigrew, what is your view on lane rentals?

**John Pettigrew:** The focus at the moment, we believe, should be on reviewing the introduction of the permit scheme that was brought in in London, Kent and Northamptonshire. I know the previous Government made a commitment to do that review. We have some interesting experiences about the inconsistency of its application and the impact it is having on congestion. To layer on something in addition to that—I know there is going to be a consultation on it but I do not know the exact details of it—seems to us to be inappropriate and unnecessary. One of the positives around the existing legislation is that it incentivises us to behave in the right way in terms of fixed notice penalties and overrun charges. It incentivises us to do the work the way that we agreed with our local authorities, to get it completed within the time that we have agreed and not to be penalised with overrun charges.

For a lot of our jobs we have to be in the highway. It is the nature of what we do in that we do not have any choice. If there is a gas leak, we have to go and respond to it and we have to dig up the road to repair the pipe. Quite often that job will be a two-day job. However efficiently you do it, it is a two-day job. Therefore, to have to pay for those two days in addition to fixed penalty notices and overrun charges provides no incentive on us to look at the ways we are working. It just seems to penalise us for having to do what we have a statutory duty to do.

**Q180 Chair:** Mr Culpin, is lane rental advocated by local authorities?

**Roger Culpin:** There were two trials a few years back which were not conclusive about how lane rental works. But at the moment the present thoughts on lane rental are that it is targeted. If it is targeted to those areas where congestion will occur and there will be severe congestion, then yes. But, generally, across the board, highway authorities just are not interested in the concept of lane rental. It has to be targeted to congested areas.

**Chair:** Thank you very much for coming and answering our questions.

### Examination of Witnesses

*Witnesses:* **Simon Beasley**, Chair, Urban Traffic Management and Control, **Andy Graham**, Chair, Co-operative Vehicle Highways Interest Group, Intelligent Transport Society and **Anthony Sharp**, former President, Institute of Highway Engineers, gave evidence.

**Q181 Chair:** Good morning. Would you identify yourselves, please, with your name and your organisation? I will start at the end.

**Simon Beasley:** Good morning. I am Simon Beasley. I am from Reading Borough Council and Chair of the UTMC Development Group.

**Andy Graham:** Good morning. I am Andy Graham. I am from the Intelligent Transport Systems Society of the United Kingdom and I am the Chair of the Co-operative Vehicle Highways Interest Group.

**Anthony Sharp:** Good morning. My name is Anthony Sharp. I am immediate past President of the Institute of Highway Engineers.

**Q182 Chair:** Thank you very much. Can congestion be improved by traffic management schemes?

**Simon Beasley:** Yes.

**Q183 Chair:** Which ones? What types of schemes?

**Simon Beasley:** There are lots of examples. A straightforward example is that, if you put in a roundabout where there is a heavy right turn, for example, it might be holding up a main road flow. So a traffic management scheme is implemented. It could be a set of traffic signals that will balance out the flow. That is a clear example of how congestion could be improved. Parking schemes are another traffic management measure. If you have a decent parking management scheme in place, stopping people from waiting kerb side and blocking traffic flow, that is another good example. Yes, I firmly believe that traffic management schemes, of course if they are used correctly, have the potential for helping us control, manage and reduce congestion.

**Q184 Chair:** Can you give us any examples of a successful scheme?

**Andy Graham:** A very good example is on the M42 with the controlled motorway scheme, where the hard shoulder has been used instead of widening the physical carriageway. That has reduced delays, increased safety, increased journey time reliability and reduced emissions, and many of the stakeholders who were concerned about it at the start of the project over the three years it has been monitored have all believed it to be a success. At the other end of the scale, as Simon said, we see smaller schemes, for example.

To answer a colleague's question about the co-ordination of traffic lights, the SCOOT system has been used all around the UK, in Edinburgh and Worcester. Southampton is a good example. It has been sold to other countries like Toronto and other places in Canada. There are many systems and services that you could use to improve traffic co-ordination that have demonstrable benefits of perhaps 20% reduction in Southampton, I think that is the number. I can check that; it was some time ago.

There are other schemes with new technology that is coming along which take the previous discussions about the idea of mixing traffic up. Rather than having a bus lane, it makes sure the bus gets to the start of

the lane rather than at the end of the lane. I would wholeheartedly agree, yes.

**Anthony Sharp:** It depends on the type of traffic management that has been put into place and the ultimate outcomes that the local authority are seeking to address. There will be some instances where they are seeking to address priority for vulnerable road users, pedestrians, cyclists, and so on. To give them a level of precedence over traffic, they have to hold up that traffic. Equally, as Simon has said, roundabouts, traffic signals, and signalised roundabouts, which is a combination of the pair, seek to progress traffic with a sharing of the reduced capacity we have on the network. We have a network that largely has not had any extension put on it in the last 20 years, but at the same time it has had a significant increase in traffic growth. Highway authorities are very much up against the stops, trying to balance the conflicting demands of different road users.

**Q185 Chair:** Can any of you give an example of a technology that you think could solve the problem of congestion or go a long way towards solving it but which is not being used enough or being applied? Perhaps you could indicate why you think it might not be being used enough.

**Simon Beasley:** Isn't being used enough? From my perspective, I would certainly fly the UTMC flag. If you go to any transport traffic office of any town or city and maybe even rural authorities now in the UK, you will find a whole host of electronic systems that are doing this, that and the other. There are urban traffic management systems. SCOOT has already been mentioned. Information on roadworks, roadworks databases, and the way that roadworks are logged within local authorities are all kept electronically. There are variable message signs. Real-time passenger information systems were mentioned earlier as well for public transport bus users. These are widespread together across the UK. You will find these mostly in the local authority traffic transport office.

UTMC is the glue that sticks all these together and then you can have a layer of a strategy manager that enables you to manage your network much better, using all the information coming from those various devices. That is active and live, and there are a number of these examples today. We recently had our UTMC annual conference where we had a really good demonstration from Liverpool of how they manage football matches at Liverpool, Anfield, and Everton's football ground. Obviously there, the traffic growth is enormous around these events, and they use their UTMC system to enable people to get to and from the ground while managing the rest of the city around it. It is very impressive. There is a whole multitude of electronic systems that are used, again from variable message signs through to the changing of traffic light timings and opening up junctions to enable that much greater traffic throughput.

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**Q186 Chair:** But if all these systems were available and were being used, would that solve the congestion problem, and why are they not being used everywhere or everywhere that is appropriate?

**Simon Beasley:** What is congestion? It is interesting. In reality, our roads are there 24 hours a day, seven days a week, 365 days of the year. When does congestion affect us? Congestion affects us during the peak periods—the travel to and from work. What causes that? It is because we all want to jump in our own cars and we want our private space. It is not even about speed. If it was about speed, many more people would cycle to work, surely. It is about the convenience and the flexibility, and it is about being in your own space. That is why people do it. You can stand next to any busy road into any town, just watching those vehicles come into town, and they mostly have one person in them. Even if you could encourage someone to share—

**Q187 Chair:** What I am trying to find out is why the technologies that you have all spoken or written about are not being used everywhere possible to solve the problems.

**Simon Beasley:** I think they are. They are being used. There is obviously a money issue. When it comes down to local level, there is a real battle for resources. Road safety is paramount when it comes to the local authority transport traffic office. We are battling against all those other demands on local authorities.

**Q188 Chair:** You think it is a financial issue.

**Simon Beasley:** Without a doubt.

**Q189 Chair:** Would anyone else like to comment? I am trying to work out why the technologies that you all talk about are not being used more widely to deal with the problems.

**Anthony Sharp:** I think, Chair, that one of the overriding constraints is funding, but equally, one of the major constraints that we in the Institute are seeing, and indeed Project Brunel, which was a cross-industry investigation into engineering in the rail sector and the highways sector, identified, is a significant shortfall in staffing, and competent staffing, to carry out these works.

**Q190 Chair:** You say “carry out these works”. What do you mean?

**Anthony Sharp:** To investigate where appropriate solutions that might deal with a junction, to programme the works, to actually get them in, to validate them, to update them, to carry on resourcing them once you put these works in. A lot of these works are heavily capital-intensive, but equally there is a revenue, a requirement, once the works are in.

**Q191 Chair:** Do you think there is enough knowledge in the appropriate authorities of what is available?

**Anthony Sharp:** I think there is a shortfall of knowledgeable staff in the UK. Certainly, notwithstanding the change in the economic climate we are in at the moment, Project Brunel identified that, five years from when it did its original study in

2008, there would be a shortfall of—let me just check my figure—29% in staff with an expertise in traffic signing and traffic signalling. That is one element that would deal with it. We are seeing that very competent time-served engineers are now, through the fact that they are a part of the demographic that is moving up, either just retiring, or, more worryingly, they are part of the vacancy management scenario in local authorities. They are being made redundant and they are not being backfilled. We are seeing that shortfall in staffing. Once you put enough staff into a local authority with enough expertise, even just going through their normal journeyman process of gaining that expertise, then the works start coming out at the other end. I would agree with Simon that local authorities are not putting these works in, but perhaps there is not enough resource to identify the appropriate places where they could do them and then funding to do them.

Certainly, the TRL—the Transport Research Laboratory—in one of their pieces of work looking into MOVA, which is a way of optimising junctions locally via traffic signal controllers, showed that there was a payback between seven and 21 weeks, but obviously local authorities do not see that payback; the community sees it as a whole. Then somebody who wants to fund MOVA working at that junction has to seek funding from their senior management and work their way through the process until the funding is available.

**Q192 Chair:** Mr Graham, what can you tell us about why the existing technology is not applied more widely?

**Andy Graham:** I think, to be honest, because we don't explain the benefits of it very well. We sit behind a wall of three letter acronyms that even people in the industry don't understand. We don't present the benefits to the users in ways they can understand, so that elected officials can then understand them and understand the case for investment. We have lost a lot of good people, as Anthony says, but equally we have also lost a lot of the central Government expertise in these systems.

We tend to have a lot of little silos. For example, there was the message earlier on that sat-nav companies do not have real-time information about congestion. Well, various companies do watch the impact of congestion caused by roadworks. Just while I was looking at the question, there are 2,196 roadworks capable of causing congestion in the UK right now. So people do look for it and they use UTM systems. I think my point is that it is all there. It is a good toolkit, but it needs to be glued together. It needs some lubrication and perhaps some money in certain places, but it also needs a bigger picture plan of how it all fits together, because there are too many little things in the jigsaw puzzle without a picture on the box.

**Q193 Chair:** You are saying the knowledge is not there at the point of decision making on what actually is available and what can be done.

**Anthony Sharp:** We probably give people lots of data rather than knowledge about what is available.

**Q194 Julian Sturdy:** You talked about the new technology and you also talked about issues to do with that and funding, but will you not agree that, actually, the best way of using funding within local authorities is probably the issue with which we are faced? I do not say this is the case now, but in the past local authorities have been a bit too liberal in where they have been using some of the funding and where they have been putting up traffic lights? “There is a perceived problem at a junction. Let’s put up a set of traffic lights there.” That solves it, but it impacts on the congestion in the long run. Do you think there has been a problem in the past where local authorities have just said, “There is a perceived problem. Let’s put a set of traffic lights up. That will solve it,” and it has caused congestion problems further down the line?

**Simon Beasley:** I would say that that is a perceived perception. Did that come out right? Anyway, if the local authorities have a problem, it is more likely to be either a congestion or a road safety problem with which they need to deal. We do not do these things for the sake of doing them. We do not put in a set of traffic signals and remove a roundabout for the sake of doing it. There is a very real reason for doing it. Sometimes we don’t communicate that very well to the public and we need to sell it better to the public. That is a big issue, I think, for local authorities. I’m sorry, I have lost my train of thought completely. Does somebody else want to pick that up?

**Anthony Sharp:** First of all, I was going to agree with Simon. When we say “local authorities”, we mean local elected members, in the main, because local authority officers like myself work for the elected members. Elected members have instructed officers to consider the options at a junction, for example, and ultimately have made a decision on the correct procedure there. Whether or not sometimes local elected members are presented with as much information or they request as much information, or whether or not they want as much information to help them with an informed decision, is another matter.

As Simon pointed out, an instance where a set of traffic signals would be put in would be where there is an accident problem. I have had experience over the last couple of years of signalling a number of roundabouts where there have been quite significant accidents at those roundabouts. The mere fact of giving a co-ordinated indication to drivers of when it is appropriate for them to move off, and co-ordinating vehicles such that there are decent platoons circulating around without large gaps so that people do not start misjudging other vehicles, brings about a significant reduction in collisions at those roundabouts. Again, that is something that the local authority does not see in the cost-benefit return but the community sees in a reduction in the cost to the community of personal injury accidents.

**Q195 Julian Sturdy:** On that point, what do you think is the impact of removing traffic lights on traffic flow in certain areas? This is happening in some local authorities; they are going down this route. But that has to be balanced against safety, and that is quite a difficult issue to balance because there are potential

legal ramifications on that as well and legal challenges if accidents occur. Do you think that the removal of traffic lights at certain junctions will improve congestion?

**Simon Beasley:** I have some very first-hand experience with this. Reading Borough Council is one of those authorities that has carried out a traffic signal review. On a couple of points, just very quickly, road space is always going to be an issue in the urban environment, so traffic signals are clearly an easier option in terms of space than maybe trying to get a roundabout to work where there is no space. If you are already in a network of traffic signals, it might be an easy decision to make to drop in another junction control, another set of traffic signals somewhere else in that network, because it is kind of neutral as it is already within a network, if that makes sense, when it comes to capacity.

In terms of removing traffic lights, this is interesting. Here in Reading we have carried out a review. Local authorities are very good at looking at a problem, coming up with solutions and then implementing those solutions, and that is great. What we are not very good at is looking back at something that we might have done 30 years ago and making sure that it is still fit for the purpose today. Something else may have changed. We might have built a bypass, another road; we might have introduced a new speed limit; we might have reconfigured our town centre. We have left junctions in place where there was a problem 30 years ago but it is no longer the problem. That is what we found.

Ours was very much an open public consultation and people did not really say, “It is the traffic lights. Take the traffic lights away.” That is not what they were saying. What they were saying was, “Why do the traffic lights always change when I get there?” They see that mostly when it is quiet. They do not see any reason why the traffic lights should change when there is no traffic on the side road and they think they should be able to progress down the network. That is what a lot of that comes from.

We have removed some traffic lights in Reading and, boy, has it been an interesting experience. Most of the motorists like it. Some of them have now raised issues like, “All of a sudden this junction feels a lot more uncomfortable. There is this in the way; there is that in the way; there are visibility problems”, for example. These are very real examples that I can show you, if you would like to see those.

Pedestrians, boy, are a big issue. Pedestrians are drawn to junctions in the same way that motor vehicles are drawn to junctions. Footways run alongside our roads and they are drawn to those same points in exactly the same way. If you start removing traffic lights, how are they going to cross the road and how can they do it safely? Safety may not actually come into it at all. There may not be any safety issues. We have one right in the heart of our town centre. It is nothing more than a glorified pedestrian crossing and there is very little traffic flow. We have taken it away. But the disabled groups in particular, and those with visual impairments, are very vocal. It is a very big lobby group and there is real political pressure now to turn those junction controls back on, although,

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from a vehicle movement point of view, there is a very strong argument that they are just not necessary any more.

You are absolutely right with what has already been said. I work for our local elected members. If our local elected members are getting bombarded, you guys are MPs; you work for your constituents, for the public that have elected you. If they want something and there is a strong voice for it, you are going to lobby for it in the same way that it happens at local level.

**Q196 Julian Sturdy:** I have one last point, Chair, on that. You talked also about signals and people getting to junctions not at peak times and they don't like the fact that the lights are the wrong colour when they get there. Is there an issue over part-time signals on safety as well, because there has been talk, on roundabouts, about having traffic control signals at peak times to manage peak flows, and then when the peak flow comes off those signals no longer operate? But that seems to have disappeared a little. Are there safety issues over that or is that something that is not being considered?

**Anthony Sharp:** Certainly, when the County Surveyors Society carried out a review of this in the late 1990s, they came to the conclusion that there was a potential for an increase in collisions. Since then a lot more roundabouts have been signalled. If I could just crave your indulgence to explain generally why we signal roundabouts, what normally happens is that the roundabout has reached its capacity so there is far too much traffic for the road space available. Then we think, "How can we get more capacity?" The best way to get more capacity is to put in a bit of tarmac and widen the approaches to the roundabout. In widening the approaches, we have to remove the deflection, which is normally the kerb that builds out from lane one that is intended to slow vehicles down as they come into the roundabout. Now we have removed that, but we are controlling the traffic by a distinct traffic signal control. If we then turn those signals off, we have removed that deflection so vehicle speeds will go up when the signals are off. Without generalising too much, you will tend to find that the younger, normally male driver will travel that much faster again through that roundabout. Certainly the feeling amongst a number of practitioners is that we would probably see a greater increase in personal injuries above and beyond the County Surveyors Society's original study. I think what is more important, as Simon touched on, is the fact that we should make sure that junctions, where they are installed, are working as well as they can. Either events have changed from when it was built or you make it work as best as you can anyway.

From a professional point of view, on my own particular part of the network, my signals are set up such that outside the peak, outside when things like SCOOT are running, they work very reactively to vehicles, so that in the middle of the night, if somebody is stopped at a red signal, it is either because they are in conflict with another vehicle going round or another vehicle going round may have gone through on a leaving amber—that is another problem—and have put in a demand on there. It is

more incumbent on us as professionals to make sure that the junctions and the infrastructure we have are working as well as they can. That is not to say that we should not equally go round and look at everything we have and say, "Is this still appropriate? If it is not, where can we fund changes to it?"

Taking sets of signals out seems relatively easy, but as Simon has pointed out, with pedestrians, especially visually impaired pedestrians, you have to put something back. It has a cost associated with it, but then these things need balancing. Perhaps it is appropriate to point out that the Department for Transport is currently working its way through a trial or just scoping the idea of a trial for part-time signals and also working its way through a trial for flashing amber at traffic signals. That will inform us and perhaps then what we need is more guidance from the Department.

I think the Department for Transport has a significant role for local authorities, while not being prescriptive on local authorities, but showing a great deal of leadership to local authorities about what is appropriate such that that information can be cascaded down through elected members, through senior officers, etcetera. Local authorities do have conflicting demands on their budgets, now more so than ever. There will always be a balancing act.

**Q197 Iain Stewart:** My question follows on quite neatly from that. I was interested in all your earlier comments about the fact that the technologies are there but not widely used through a combination of financial reasons and expertise. I am just looking at possible ways that we can incentivise authorities to embrace technology and the Invest to Save model. I would be interested in your thoughts as to what that mechanism might be. Would it be a form of a challenge fund from the DfT in a way similar to the Local Sustainable Transport Fund? Do the LEPs or the Local Government Association have a role? What are your views on what might be the way forward?

**Simon Beasley:** Just to clarify, the technologies are there. There are lots of technologies there. From the UTMTC perspective, there are lots of great ideas as well yet to come. A joining together of systems is still a big one. Street works is one that that we are very keen on. UTMTC is a set of standards and specifications. It is not a product as such. It is not a box of something that you can buy off a shelf. We would like to take those standards and specifications for street works systems. We are talking about computer systems here, really, technology, and we would like to combine those and create a set of standards and specifications for UTMTC. So the elements of what they do, the data, if you like, that is collected, could be plugged into the traffic management system within the local town or city, whatever, that can then help to manage your traffic. Just to clarify that point, there are lots of ideas for technology. What was the question?

**Q198 Iain Stewart:** How best do we incentivise or encourage local authorities to use that once it is all packaged up?

**Simon Beasley:** The DfT have done an awful lot through the last two local transport plans and have really pushed and promoted things like UTMC and ITS initiatives. That is where we have seen a lot of local authorities pick up on these. We will let this man talk maybe about the experience within local authorities because there is a lack of personnel, resources, people experienced with really good experience and expertise within local authorities. There are something like 164 local authorities in the UK and they come in lots of different shapes and sizes. We are one of the smallest in Reading, whereas I would argue that the technology that we use and employ is one of the best examples that you have. Resources is a big issue. There is a huge argument for looking at highway authority areas and maybe doing more to encourage local highway authorities to work together or maybe just scrapping what you have and coming up with more strategic area transport authorities. That is just a thought and an idea.

**Andy Graham:** There are a number of points there. The number of traffic control systems in the country ranges from very small ones to huge ones in London. The more that you can buy a system and bolt two or three local areas together, first, they all work together and avoid the seams between local authorities, because drivers don't care whether they are in Scrugsville or Acme town; they just want to move. The second thing is that it reduces prices, and the third is it reduces the operational cost of the number of people who need to press buttons and things. The systems and the technology that Simon is talking about mean that you can have the same number of people doing more things or less people doing the same things you do now.

I would say there is another incentive, which is that, the more we can move towards getting the information into the vehicle and on mobile phones, the less cost there is to the local authority and roadside infrastructure. We have about 6 million sat-navs in the UK and about 4 million of them have real-time information of one sort or another; and that is growing and growing and growing. There is an opportunity there to do the work that Simon is doing, as he said, through LAs collating roadworks information to get that to the vehicle and the user.

Some figures I have obtained from Trafficlink show that about 50% of congestion is due to roadworks and accidents and the other 50% is just because there is too much traffic. If you can let people know about that 50% of traffic problems before they leave or in the middle of the journey before they come to the congestion, you can manage congestion far better. We are quite good at it for the motorways, and towns like Reading have done a lot, but we need to have it for the whole of the UK because people do not drive from a motorway junction to a motorway junction, or a motorway junction to the centre of Reading. They drive anywhere. The incentive is for the local authority to do a better job by giving better benefit to its ratepayers, by having a more agile town centre, with less congestion to enter, but also by reducing its costs.

**Q199 Chair:** How could you show that buying particular equipment or installing new systems was cost-effective in relation to reducing congestion or improving traffic management generally?

**Andy Graham:** There are a number of examples which I could send you in supplementary about the cost of a new system versus the amount of vehicle hours or vehicle kilometres or emissions it has saved, from studies in London, Southampton and places like that. But, generally now, it is actual physical hard money that you wish to save.

**Q200 Chair:** But how can technology assess the cost-benefit of installing a particular technology?

**Andy Graham:** Many of these systems, for example, SCOOT, will measure the congestion as it happens. They will allow you to see whether you have reduced the queue lengths. There are various other things like the data that are collected from GPS and from mobile phones that you can use before and after to assess the benefits that you have made. There are lots and lots of data about congestion that could be used to identify more where problems are and show the benefits of investing in them once they have occurred. As Simon said, if it doesn't work, if it doesn't increase or something has happened to the network which means that junctions are no longer needed, that would show up as well.

**Simon Beasley:** One of the technologies that local authorities have really got hold of is automatic number plate recognition systems. That can sound quite scary and there is the whole Big Brother issue, but they are not using them for that. You do not need to take the full number plate. You only need to take a part of the number plate to make a match between one metal box moving between one point and the next point, if that makes sense. They are being used for journey times and there are some really good examples. Leicester is another really good example where they use their UTMC system. There is a UTMC data project now for journey time monitoring and use. If you go on to the Southampton transport website, there are journey times from the outer city to the inner city and, again, that is using ANPR technology. They are already putting it out to the public through web services.

**Q201 Chair:** You have all spoken about technology being there, but there not being sufficient knowledge generally about what is available and sometimes a lack of resources in local authorities or perhaps a lack of expertise in assessing what is appropriate. Whose job would it be to promote that better? Would it be something the Department should do or should it be to do with your organisations?

**Andy Graham:** I think the Department were doing a good job until a couple of years ago. They had a project called the ITS Toolkit, which was promoting the benefits of just the sort of thing we have been talking about. That is no longer funded. If you are a council other than Reading and you want to know what the benefits are, you cannot go there and find that information. It is no longer there; it is archived but out of date. I think the Department has a good role to play in communication. It's a bit like medicine, in



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that you go to your doctor and he could prescribe a number of different medicines for your ailment. The set of medicines that you can use is controlled centrally, but the local diagnosis and the local treatment is decided locally. We need to have a very clear picture of the tools that are available, but I think, more importantly, you have to glue them together and you have to procure them at the lowest possible cost.

**Anthony Sharp:** I would agree. The Department, as I said before, have a significant role to play. My perception is that the expertise within the Department has tapered off during the last four or five years and that expertise needs to come back within the Department, working with the professional bodies and the bodies that represent the different technologies.

Just going back to your question about how to incentivise local authorities, the one problem with that is that, as we saw with the idea of “predict and provide” 20 odd years ago with the road network, if you make things better, the traffic expands to fill it. You are always chasing your tail because you will get that junction working really well, and 10 years down the road, if you pardon the pun, there is then congestion at that junction because the traffic has moved from its networks and the traffic has grown.

If the Exchequer all of a sudden said, “Here is a large amount of money. Go and get rid of congestion”, I don’t think the industry could do it. It needs to be a staged element. It needs to be an element of capital funding, perhaps not just on challenge funding because the danger with challenge funding is that you find those that are always very good at these things

get the funding and improve their local area. Those that are not as good at bidding for things, that have a significant problem or are lower down on the league table, do not get the funding and then end up working further down the league table.

We need an element of capital funding but we also need revenue funding. If there is a large stock of junctions, principally traffic signalled, in the UK, then the way to deal with that is to have an increase in revenue funding such that they can be upgraded on a more regular basis. I endeavour to replace traffic signal controllers—the actual computer that is on screen—every 15 or so years. It is more likely to be more than that. But, to do that across a national basis, you would have to have a lead-in time of five, six or seven years to get the latest technologies out there. Every time I upgrade a junction, I put it on the new form of technology—MOVA. Every time I put a new junction in, it goes on the new form of technology. It would make no sense to do otherwise.

The trick now is to crack the existing ones, coming back to your question about whether we should turn signals out. Maybe we do. Maybe we look at it to see if we can make it work more efficiently, but then we put it into the programme to make it work more efficiently.

**Chair:** Thank you very much indeed. I think, clearly, resources is one issue. In the current circumstances it looks a little difficult, but it is perhaps a challenge. Thank you very much indeed for coming and answering our questions.

**Tuesday 7 June 2011**

Members present:

Mrs Louise Ellman (Chair)

Jim Dobbin  
Mr Tom Harris  
Julie Hilling  
Paul Maynard

Mr John Leech  
Iain Stewart  
Julian Sturdy

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**Examination of Witnesses**

*Witnesses:* **Paul Watters**, Head of Public Affairs, AA, **Mr Iain Reeve**, Head of Strategy, Transport and Planning Services, Surrey County Council, and **Malcolm Bingham**, Head of Road Network Management Policy, Freight Transport Association, gave evidence.

**Q202 Chair:** Good afternoon, gentlemen, and welcome to the Transport Select Committee. Could you please each give your name and the organisation you are representing for our records?

**Malcolm Bingham:** My name is Malcolm Bingham. I work for the Freight Transport Association.

**Paul Watters:** Paul Watters from the Automobile Association.

**Mr Reeve:** Ian Reeve, officer at Surrey County Council.

**Q203 Chair:** Thank you very much. Where would you say congestion is most serious? Is it more on local roads or strategic roads?

**Malcolm Bingham:** We believe it is a set of priorities that different freight organisations look for. Certainly, in the strategic road network, that is where we believe it costs the industry more money, but we recognise that there is congestion in towns and cities as well, but I think most freight operators see that and try and make arrangements around it. The problem is that unforeseen hold-ups on strategic networks are the ones that really catch the industry out.

**Paul Watters:** It is a mixture of both. Urban congestion has perhaps a different set of issues in terms of commuting and everybody wanting to be in the same place at the same time, whereas some of the most serious issues on the strategic network are incident-related or roadwork-related. There are pinch points on all of the networks, both urban and national. It is a mixture. It is different types of journeys and different types of congestion, but nevertheless it is still costing the economy.

**Mr Reeve:** I agree. Congestion is on both the national and local network. It is whenever there is a bottleneck or an incident which causes traffic to slow down. We found in Surrey that it can just as easily be one of our towns with a main A road running through it as it can be on the M25 or a large motorway, so I would say both.

**Q204 Chair:** Is congestion improving or getting worse? Could anyone give me any examples of something that has been made better—something that has improved?

**Malcolm Bingham:** The sort of initiatives that we have seen in managed motorways has given our members a lot of encouragement because for goods vehicle movement they have seen some more

reliability in journey time. I suppose in one way, for the larger goods vehicles, the sorts of speeds that are controlled in those managed motorways are the speeds that they travel at, so it is giving them a greater reliability through those managed systems. Indeed, on occasion I have had comment from our members that, when there are roadworks set out and the speed is controlled during them, they seem to find a more reliable journey during that period as well.

**Q205 Chair:** Has that been effective? Have you seen good examples?

**Malcolm Bingham:** Certainly the M42 is well recognised in the freight industry as being a much more reliable road than it was in the past.

**Paul Watters:** It is fair to say we do get fewer complaints from our members about congestion, particularly on inter-urban roads. Some of this perhaps is not complacency, but we have traffic levels that are falling at the moment due to the economic situation. It could be that if we have a sudden resurgence of traffic we will see congestion return very quickly. On some of the urban routes conditions are just as bad as they have ever been. Statistics show that on local authority A roads, traffic speeds are averaging about 25 mph, and that is in the peak hours. Perhaps it is not surprising, but that has not shown much fluctuation over the years. We are probably in a situation where it is hard to predict what is going to happen in the future, but at the moment traffic is a bit easier. Also, the cost of fuel is having quite a big impact on driver behaviour.

**Q206 Chair:** What are the main complaints you get from private motorists, Mr Watters?

**Paul Watters:** It is particularly incidents. It is people who are held up for long durations making them late for appointments, where motorways have to be closed, but those closures can be up to four hours sometimes. That does impact on journey time reliability. We recently surveyed our members and asked them how much time they allow extra for incidents in a journey of 100 miles. A good percentage leave over an hour. That shows there is a degree of unreliability that they plan for, but that is only a journey of 100 miles so it is quite a short trip, really.

**Mr Reeve:** I would certainly agree. The picture over the last 10 years is of constant levels of congestion, constant levels of traffic and constant speeds. In

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Surrey, we have seen an increase of no more than 0.5% a year in the number of vehicles using our roads. What we believe has happened is that our roads have hit a saturation point where they are borderline unreliable. Drivers are not stupid. They do not keep adding themselves to an already congested road and making it worse; they look for alternatives. We think we are at the point where our roads are struggling to function and that is the point at which people will not drive on them any more.

**Q207 Chair:** Are people getting enough information about what is happening out there on the roads before they set out on their journeys?

**Mr Reeve:** We do not think they are getting enough. We are trying to give them more. I would like to talk to you later about a project that we are involved in, looking at giving motorists more information, because that is what we think is key to this. It is very difficult to build more roads. There is not much space left, they are very expensive and there is environmental damage caused by road building. It is about making the existing roads flow better. That is about giving information to people about when there is an incident, how they can get around it and if the conditions are going to be bad because the schools are coming back, to warn them days in advance. Information is fundamental to making the roads flow better.

**Q208 Chair:** What is the current position about the integrated transport project that you are involved in at the moment? Does it have funding to continue?

**Mr Reeve:** It does not have funding at the moment. It was a project that was being discussed between the Department for Transport, the Highways Agency and Surrey County Council about a year ago to look at information and traffic management around a section of the M25. Up to the Comprehensive Spending Review it was a joint project. After the Comprehensive Spending Review, its future is uncertain; it has no funding. We are in dialogue with the Department for Transport at the moment to see if we can resurrect it, particularly if we can make it a cheaper project because we recognise there are funding difficulties, but we believe this area is absolutely crucial.

**Q209 Chair:** At the moment you are having discussions with the Department to see which way it might go.

**Mr Reeve:** That is right. We are trying to see if we can change the scope to make it more affordable. The project as it was before was £25 million to £40 million, which I do not think is affordable. What we are looking for is something rather cheaper.

**Q210 Jim Dobbin:** My concern from a constituency point of view is the effect that heavy goods vehicles have on local communities and the impact they make on local communities. Just to describe my constituency, the M62-M60 goes right through the centre. I have one town on one side and one town on the other side. At a certain junction, 19, they come off and they go to distribution parks which are adjacent to those motorway systems. We tried to negotiate quite

politely with the distribution park developers to try and ensure that their drivers knew which junctions to come off at, but that was very difficult. Even when the Highways Agency indicated that they should come off at a certain distance with boards 6 ft high with letters 10 ft high, they still came off at the wrong place, with the result that we had to introduce weight restrictions and chicanes to stop that. It would be much better if it was done in another way in actual fact. How do you get it across to the freight companies that this is really important? You cannot have heavy goods vehicles trundling through communities every two minutes 24 hours a day.

**Malcolm Bingham:** We have looked at a number of options of trying to persuade operators to use the most appropriate routes. Our firm belief is that operators should use the motorway trunk road network and the primary route network as main distribution patterns and only come off those to effect the point where they may want to go to a distribution park or even make a delivery. The difficulty with that is that sometimes the signage is not appropriate. I think I understand where your constituency might be because I have seen the signage that encourages people to use more appropriate routes.

But what we have seen over the last few years is individual drivers and indeed hauliers using things like sat-navs that are not properly programmed for that type of vehicle. We looked over a number of years to see if there was a more appropriate sat-nav system. In fact, we have been asked by the sat-nav industry to look at that and we have tested a number of models and in the last year we actually recommended one which we have tested over a number of routes. We know that vehicles would not use an inappropriate route if they use that sat-nav system. The difficulty is that that sort of system costs about £400 to buy, and a driver might go to Halfords and buy one for about £60 which will not be programmed in the right way. The data behind all of that are fundamentally important. We know there are weaknesses in that data right across the country and we need to see better data fitted into those systems so that they can be better and we can better provide on the sat-nav front. Additionally, also on mapping generally for freight industries, that database is fundamentally important. We do not have a national one, rather what we have is piecemeal across different local authorities and in different formats, and it is not suitable to feed into the industry to use.

**Q211 Jim Dobbin:** I understand the problem with sat-navs. We all have these problems ourselves, but what I do not understand is the inability to read a sign that is quite clear and which quite clearly indicates that they do not come off at junction 19 but they go to junction 18.

**Malcolm Bingham:** We would support that policy as a responsible trade association and have always supported effective enforcement for those who do ignore that sort of signage.

**Q212 Mr Leech:** There is probably some fairly strong evidence, although some people would disagree, that, if you widen motorways or strategic

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routes, all you do is just encourage more cars. Would you agree with my assessment of that and would you say that active management control, for instance on the M42, is a better way of tackling congestion as opposed to just widening roads?

**Paul Watters:** I would say a bit of both. Some of the hotspots that we have on the network are solvable by engineering methods, by adding some lanes or taking a little bit of the hard shoulder, whereas some are not. Some cannot be resolved by simple capacity improvements. But there is certainly merit for some schemes to go ahead. Certainly some of the urban congestion is probably caused by just one junction that may sometimes create a knock-on effect across a local network. So there is certainly merit in some engineering. Our members like hard-shoulder running on motorways and that is capacity gain, perhaps not for the long term. Members are prepared to adapt.

**Q213 Mr Leech:** By having that non-permanent capacity gain, by having a temporary lane at certain congested parts of the day, do you believe that that has an impact in terms of encouraging more cars on to that road or does it just deal with the congestion that is being caused by the existing traffic on the road?

**Paul Watters:** There is inevitably some pent-up demand that will be released if there is extra capacity, but the findings on the M42 have proved 100% that the case is worth doing in terms of incidents and also in terms of CO<sub>2</sub>, with vehicles running smoother. It may stimulate some traffic, undoubtedly, because of the extra reliability. But it is still regulated. It can still be slowed to add a little bit more capacity. It is a good system and it seems to work, but, yes, it will stimulate some trips. There are some trips that want to be made and it is better to have them made on motorways, for example, than on local roads to which drivers may well deviate if the motorway is offering a poor standard of service.

**Mr Reeve:** You are absolutely right. There is a danger by adding more capacity to roads and motorways that we create opportunities for journeys that did not exist before. We find that drivers and residents are driven by time constraints, so if they can live somewhere and still be able to drive to work, they would like to move further away from work. What people tend to do is look for cheap housing and a nice place to live. As you add extra capacity to transport, they live further away from the office. That is a fact we have seen many times. There tends to be an inbuilt time value to which people adhere. If you put in faster transport, they still travel the same length of time but they travel further, and that is more use of the roads. We have to use extra road capacity with a great deal of care. If we simply widen motorways, we will create additional journeys.

You are absolutely right to talk about traffic management. The M42 scheme and the managed motorway on the M25 are critical for making things work. I would also agree with Paul that there are some junctions and particular areas that cause a bottleneck. In those cases we can safely add infrastructure without creating a lot of damaging extra capacity. I would counsel you against suggesting widening every

motorway because I think that will create more problems than it solves.

**Q214 Mr Leech:** What is the difference in impact in Surrey if you widen a road or you put an active traffic management system in place in terms of the impact that it has on your local roads?

**Mr Reeve:** What we are trying to aim for is journey time reliability so that when someone sets out for a destination they can plan when they are going to get there reasonably certainly. The difficulty we have is, of course, you do not know how congested the road is going to be. You set out half an hour too early, and often you end up arriving half an hour too early, but you had to leave that half an hour because you do not know how long the journey is going to take. If you focus on traffic management, on managed motorways, on measures which smooth traffic flow, you can take that element away and people can predict their journeys; freight companies can know when they are going to see their clients.

If you add extra capacity, what tends to happen is people think, "I can now make a journey I could not make before." That creates a new journey. We have a very specific example in Surrey. In a month's time the Highways Agency are going to open a scheme called the Hindhead tunnel. It is on the A3. It is replacing a piece of single carriageway road on the A3. It goes through a village called Hindhead with a dual carriageway through a tunnel. In the short term, over the next six months to a year, that will bring nothing but benefits. You will be able to speed along the A3 from London and Guildford to Portsmouth much more quickly. You will not even notice that there is a village there. But over time people will say, "Ah, but now I can live south of Hindhead and commute to Guildford." You will get people making different decisions about where they live and that will create extra pressure on the road network. While we very much welcome these schemes and they do help at a pinch point and help tackle congestion, if we are not careful, they create extra problems elsewhere on the network and people change their behaviour patterns around it.

**Q215 Mr Leech:** What level of consultation is there with the county council when a scheme is being proposed by the Highways Agency that will have that sort of impact on your local roads?

**Mr Reeve:** I have to say the consultation with the Highways Agency is extensive. We were very closely involved in that scheme and we welcomed it because the problem that it tackles is one that we know needs to be tackled. What we are concerned is that, once that scheme is open, it will create additional problems at the next pinch point along in either direction.

**Q216 Chair:** How extensive is the consultation? Does it take into account that consequence?

**Mr Reeve:** Yes. Those factors were measured, and we knew, when we were accepting and agreeing to this tunnel, that that was one of the impacts that we would have to bear and that would need further work elsewhere down the line on other parts of the network

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to compensate for the extra traffic the scheme will bring.

**Q217 Mr Leech:** Obviously, that additional work that you might require as a county council has a cost attached to that. Effectively, work carried out by the Highways Agency then adds on a cost for you. How do you then prioritise these things to make sure that you are making the decisions about what your priorities are rather than having to prioritise things because the Highways Agency is making them a priority?

**Mr Reeve:** We have to prioritise the parts of the network that are under most stress or likely to become under most stress. Surrey is in a unique position. We have a very large portion of the motorway network. A third of the M25 runs through Surrey. Nearly half of our traffic is on motorways and trunk roads, which is much higher than the average. The motorway and trunk road network is very important to us and we know it causes problems on the local road network. That is why we were working with the Highways Agency and the Department for Transport on this joint project, because of all the local authorities that we are aware of, Surrey is the most acutely affected by motorways. Yes, it does cause us a cost.

**Q218 Iain Stewart:** My question is also to Mr Reeve. First, can I just check that your integrated demand management project is wholly within the boundaries of Surrey? Is it a specific project? Is it the sort of scheme where you could work with other local authorities jointly and thereby have some sort of economy of scale? Is that something you are actively pursuing with the Department?

**Mr Reeve:** Very much so. The idea was to test approaches that would then be rolled out to other authorities. The IDM project originally started looking at the entire M25 and was a partnership between the Highways Agency and all of the authorities around the M25. That did not work, and the project did not get off the ground. The Office of Government Commerce found that it was too unwieldy and there were too many partners. The Highways Agency and ourselves scaled it down to one authority, ourselves, from junction 8 to junction 11 of the M25, about a seven-mile stretch. But what we were looking for were measures which could be rolled out to other authorities. What we did not want was something that only worked in Surrey. We were looking for low-cost measures that would apply anywhere else in the country where motorways and trunk roads and local roads interact.

**Q219 Iain Stewart:** My concern is that, if your scheme works in your chunk of the M25, are you not then just going to shift the congestion problem further round the motorway?

**Mr Reeve:** That would be the case if we were talking about creating extra capacity, putting in more lanes. We are not talking about that. What we are talking about is giving drivers more information about problems on the network so that they can decide not to travel at that time, to travel later in the day or not to travel at all. The idea of the IDM project is, if we

know there is a problem, to give people as much notice as we can hours before they travel or 40 miles away from the incident so that they can make a decision to go around it. But we are not creating extra capacity. We are not talking about extra lanes. We are not talking about hard-shoulder running. We are talking about better information, better signing to manage people around the problem. We do not think that will actually cause a problem for elsewhere. If anything, if there is an incident and our system can pick it up, tell drivers about it and they can defer a journey as a result, that helps everybody. It helps the driver and helps all the local authorities that the driver would have passed through.

**Q220 Iain Stewart:** May I ask the other two witnesses more generally, is there a problem between sharing traffic information between local authorities and, also, is there a good practice that we can look at to reduce that?

**Malcolm Bingham:** There is without doubt within our industry a growing appetite for information on traffic. The decision-making process for a freight operator to make that 300-mile detour or not is crucial because of the expense he is going to incur in doing that. Therefore, information is vital. We have good information on the strategic road network freely available and we have a service where we actively send that information out to our members on a day-by-day basis. There are gaps even in that because we know on certain parts of the strategic network there are gaps in information. There are massive gaps in local highway authority areas and we struggle to get information. It is important also to have information in a timely manner because, if you have already loaded your vehicles, are you going to therefore unload them or decide not to send them out? It is a difficult decision for a freight operator. If you have good information in a timely manner, we know already freight operators are making those decisions to reroute or contact their clients and say, "It might be tomorrow before you get your goods."

**Paul Watters:** We did some research of our members about where they get their traffic information from. About 75% use local radio or Teletext before they leave home. When they are on the road, they obviously need further information if the journey changes en route. We asked them about the traffic button on the radio of their car. 80% said they had it but only 22% said they used it on regular journeys, and yet that can save you getting into a lot of congestion. There does need to be more awareness of the types of technology that exist already in many cars and also the means of telling you online as you are travelling, perhaps recorded messages that do not involve using the telephone, or information on variable message signs.

I do not think the Highways Agency has quite finished some of the variable message signing it is putting on to its strategic network. There are still some gaps in provision and yet that information is now extremely useful. There was a time when you would not see a long distance problem notified elsewhere in the country but now you do. You can be in Winchester and see that the M1 is closed, which in the scale of

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some journeys made on the strategic network is very useful because people can take a long deviation without causing major impact on the network.

**Q221 Iain Stewart:** I am primarily relating from personal experience, and I accept that information is helpful to a point. If you know the area and they say there is a problem on the A123, fine, you can work out a way round it. But what if you are in a part of the country where you do not know what other options there might be? If, say, the M1 is closed, what else do I do? As more and more cars have sat-nav technology, is there a technological advance that could offer real-time alternative routes?

**Paul Watters:** Many satellite navigation systems will already override your predetermined journey in the event of an incident. Again, that does leave you rather at the control of the sat-nav rather than of your own knowledge, skills and information. You have to trust the sat-nav, but, as we know, sat-navs do not always give you good information. I think there should be a degree of caution, but certainly the technology is coming where a lot more journeys can be assisted in that way.

**Mr Reeve:** You are quite right to pinpoint the need for information. We think there is a hierarchy of information or a sequence of information. If you are travelling, you are on top of the incident and you are on the road, you need to be told why, because people get frustrated when they do not know what has caused it. If you are a few roads away or a couple of miles away, you need to be given information about whether it is worth diverting. Often it is not; waiting for the incident to finish is often the best way.

A few miles away, more strategic information might help you to avoid an incident altogether or you may decide not to set off. One of the issues we have been looking at is the longer incidents, the two or three hours or more incidents that happen around rush hour. We would like to get to people while they are still at their place of work to say, frankly, "Don't try." I will give you an example. We had an incident a couple of years ago that closed the A3 through Guildford for 12 hours. Two lorries had crashed together and it involved a fatality. That caused immense problems. We did not have a ready mechanism to tell people, "If you are still in the office, frankly, stay there. Work a bit later. It is not worth trying to travel at this point. It really is difficult." That is one of the things that we want to get to so that we can warn people on the road or before they travel or, in some cases, the day before they travel. We have the Olympics coming up. Surrey is going to be hosting two cycle road races and we want to warn people several days beforehand that to travel on this particular day is going to be difficult and to give people a chance to find their way around it. Technology can help. Some sat-navs, as Paul says, can react to driving conditions. Not everybody has those. It is a problem if the sat-navs direct everybody to the same alternative route because that same alternative route quickly gums up. In some cases you want people to sit where they are because that is the safest place to deal with them, but clearly it is an area we have to do more work on. The information is fragmentary. Surrey has a website that tells you what is happening

in Surrey, but if you go outside our borders we cannot help you. No one is going to look at three or four websites as they work out their end-to-end journey across more than one county boundary. There is a lot of work we need to do in this area.

**Q222 Julian Sturdy:** How efficient do you think our road network is? How would you rate it—fair, good, bad—on an overall basis?

**Chair:** Mr Bingham, what would you say in relation to freight?

**Malcolm Bingham:** Is this a personal question or for my members?

**Julian Sturdy:** Your membership.

**Malcolm Bingham:** Our members think it is poor. It is poor when there is an incident when they cannot really see where there is an end point to it. My view is that the network works pretty well, but it is those major incidents that last for a long time that create the problems. One of our problems is the information that we get at the moment does not give us an accurate clearance time, from whatever source. We know that from the traffic information that we have been putting out already. That does not give the fleet operator a chance to make decisions about whether he is going to allow vehicles to go down that route or not. In that sense that is why, in that respect, it is poor.

**Paul Watters:** Our members certainly think it is poor, but it is only sometimes as good as the last journey you made and they may have a different view. But they certainly have experiences of severe congestion and it is hard to rate it. We often hear from people who have been abroad and they say their experiences are much better. But of course they often have parallel motorways, say, in France where they have a tolled network and a national network. We do not have the luxury of space in the UK and we have a very congested, very heavily used network. We shoved all our traffic on to motorways because we did not want it in urban areas and through villages, but that puts extra pressure on the network, understandably. It is a very congested network anyway and, compared to other European countries, it is one of the most congested in Europe. It is not surprising that they deem it to be fairly poor because there is always a lot of stuff going on around them, whether it is peak hour or even not on some of the routes.

**Q223 Chair:** Is this poor generally or poor in relation to incidents?

**Paul Watters:** In terms of driver stress, it is congested with a lot of traffic competing for space. I know of people who do change the hours of travel to travel at quieter times. But, for example, in the morning peak, the motorways now are very busy at 5 am; many years ago it would probably have been busy at 6 am. People adjust because the pressures are so great and so people are making compromises to adjust to our network, which is overloaded.

**Mr Reeve:** The term I would use for the network, particularly in Surrey, is "saturated". It works—just—when everything works. Roads naturally get to that level because drivers will not drive on an unreliable network. They will find an alternative. They will change the time of their travel, work from home, car

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share, or take public transport. Roads naturally tend to fill up to a saturation point where it is unreliable or borderline unreliable. It just about works and one more thing tips it over the edge.

**Q224 Julian Sturdy:** When you are saying “saturated”, you do not think you can get any more efficiency out of the current network in Surrey.

**Mr Reeve:** We can get efficiency in terms of traffic management. We can get efficiency in terms of travel and travel demand, but it is quite difficult to get efficiency in terms of more vehicles through the road. In fact, what do I mean by travel demand? Because we have a saturated network our roads are unreliable. People react to that. As Paul has rightly said, they will leave early in the morning. People are leaving at 5.30 or 6 o’clock in the morning to avoid it. People also work flexibly. They will work from home or do anything they can to avoid travelling in the rush hour. If you give them more capacity, they will go back on to the roads. What we can do is help the roads flow better, help journeys become more reliable and help them to find other ways around their travel needs. Surrey has a high proportion of people who work from home, work electronically or remotely, or work flexible hours because the network is saturated. People are not stupid. They do not add themselves to the roads and keep on doing that until we get gridlock. They look for the alternatives. A saturated network prompts people to look for alternatives. It works—just.

**Q225 Julian Sturdy:** On a slightly different tack if I can, this is more directed to Mr Reeve. Earlier on you talked about a new scheme—I cannot remember the name of the scheme, sorry—near a village where they had gone to a dual carriageway under a bridge and you felt that you would see an improvement for six to 12 months, but then people would look to move further out because their journey times to work would be better. Do you feel there is a bit of a lack of communication within local authorities about the future planning? I am not talking about individual applications as they come in during the eight or 12-week planning process. I am talking about long-term future plans and actual transport demand and transport needs, because, to me, it has to be fundamental that those two are very interlinked. I don’t know, from a local authority base, what your views are on that.

**Mr Reeve:** You are absolutely right: it is fundamental. That particular scheme has to be dealt with because the current traffic situation is intolerable. We have a dual carriageway through a main road from London to Portsmouth, one of our major ports, and it slows down to a single carriageway and goes through a signalised crossroads. That brings everything to a grinding halt. On a Bank Holiday it is murder. You can take 30 seconds to get through it or you can take 45 minutes; you just do not know. We had to do something. We were aware when we put it in, and I worked with the Highways Agency putting it in, that it would cause problems either side of it. It would cause problems at the next junction along and the next junction down. We planned that; we measured it; we got a rough idea of how much time we had before it

started to build up, and we had worked with the Highways Agency for schemes on the next junctions along, the next problem point along, to resolve those, because we could not leave that signalised crossroads as it was because it was really a bad bottleneck. We just had to accept that, when the Highways Agency put this very expensive tunnel in, it would create extra problems. We felt the price was worth it but we did do long-distance planning and long-term planning.

**Q226 Julie Hilling:** I wanted to consider the smaller routes and I have a question around traffic calming measures and the effect that they have on the network. Obviously, I know that is about competing demand, but I am also interested in the consultation and discussions that take place about what should happen with those measures, should they be put in place, etcetera, with the traffic flow. I wonder if you could just talk me through a little bit of that.

**Paul Watters:** We get quite a lot of complaints about traffic calming, particularly road hump schemes, where it is always difficult to gauge correctly the need to consult, whether you consult locally, or whether you consult the road users who use the road. It is always a tricky one. But, undoubtedly, road hump schemes and traffic calming schemes do encourage traffic to use more appropriate routes because people do find, as the humps are designed to do, that they make the journey slightly slower and slightly more inconvenient. With appropriate alternative routes, road hump schemes and traffic calming schemes will do the right thing, but if they are ill-conceived or put in not to address a problem they can make things worse rather than better.

Getting the consultation right is very tricky, knowing who you are aiming the consultation at. But even people who want traffic calming sometimes regret that they did if they have a hump outside their house and then they experience a lot of noise. It also increases perhaps CO<sub>2</sub> a little, with people accelerating and decelerating. It is not the cleanest type of traffic calming and it is far better to engineer a different route altogether, a different alignment, in a tidier way.

**Mr Reeve:** Our approach towards traffic calming is one of considerable caution. It is a classic dilemma between the resident and the motorist. The resident will often want traffic reduced outside their house. They want speed reduced and they are maybe concerned about road safety. The motorist does not want the jarring impact of vertical traffic calming—a lump or a bump. So we tend to put them in only at need, only when we have consulted thoroughly. We would naturally prefer what I call horizontal traffic calming, such as width restrictions and chicanes to slow people down rather than the lumps and bumps. But there is very little else that we can do to slow traffic down or dissuade it from inappropriate roads. Again, we talked about a saturated network. One of the things people do on a saturated network is to look for rat runs, and that can mean you have a lot of through traffic going through residential roads that should not really be there. That is when you use traffic calming to try and get them back on to the main roads, but only as a last resort.

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**Q227 Julie Hilling:** Something that one of my freight operators talked about was solutions that actually create more trouble, particularly for freight, for example roads that lorries can no longer turn into. I am not particularly talking about going through the housing estate, but certainly around my area there are some major roads that have chicanes and goodness knows what on them.

**Malcolm Bingham:** Most freight operators will look at their delivery areas, if you like, to try and use as suitable a vehicle as possible. It is not always possible to go down to very small vehicles because of the nature of the goods that are being delivered. Therefore, in the chicane area, when you are making local deliveries, and it might be just delivering the fridge or the washing machine, that sort of thing, that does create a problem. I support Paul's point on CO<sub>2</sub> and fuel usage as well. It increases the fuel to go through those systems. But most companies understand why they are there and train their drivers accordingly, if you like, to respect that.

In the early days of that type of traffic management we had more issues and certainly a number of vehicle defects were created by ill-conceived humps in the road, that sort of thing. But in recent years there has been a lot more thought put into it and I take Iain's point about consultation with the residents and the operators.

**Q228 Julie Hilling:** Just one thing around travel in bus lanes. Again, a local freight operator said he thought freight should be allowed to travel in bus lanes. I know I have asked this of other witnesses, who have said no, that it is a very bad idea. I am just wondering what your view of that is.

**Malcolm Bingham:** Our position is quite straightforward. We do not believe that all bus lanes should be immediately converted over to lorries as well as buses, because where bus lanes are busy it is important that they maintain that flow and priority. But we believe there are a lot of bus lanes across the country that do not have that public service vehicle flow which could, in the right circumstances, be converted to a priority lane. We have seen some in Newcastle and Sunderland of late where priority lanes have been put in place to allow goods vehicles to use those lanes to help them effect their deliveries, particularly in peak hours. That is the issue.

**Q229 Chair:** Mr Watters, you are not very keen on bus lanes, are you, from your evidence?

**Paul Watters:** We would fully support a review of bus lanes. Many bus lanes were put in years ago and perhaps there has been no analysis of the level of services that are carried on those bus lanes now. Some of them would probably be far more effective as all-purpose traffic lanes or even freight lanes, or other sorts of dedicated lanes such as car share lanes. There

is perfect scope to convert some bus lanes. In Leeds, there is a high occupancy bus lane that car drivers are allowed to use and it seems to make perfect sense. If people are to be encouraged to car share, they should be encouraged to use a smoother route.

**Mr Reeve:** Bus lanes are very emotive. Drivers look at them and think, "I would like to be in there, speeding past all these motorists and getting to the front of the queue." The reality is that bus lanes do not inconvenience drivers by anything like the amount they think they do. What generally happens in the bus lane is that it is put in before a junction and it is the junction which is the constraint on the traffic, not the number of lanes leading up to it. The problem we have with buses when we are trying to encourage people to use buses more is they think the bus journey is unreliable; it is going to get caught in congestion. What we are trying to do with bus lanes is speed up the buses, make them more reliable, and make them more of a credible alternative to the car. That is why they are put in and that is why it is bus lanes and generally not HGV lanes, because why would you want to give speed to the HGVs when they do not have the same competitive element against the car? That said, we are keeping our bus lanes under review. We have only a couple. We are not wedded to them. We keep looking at them; we monitor them. But they are certainly not as much of a problem as drivers seem to think.

**Chair:** Mr Dobbin, there is time for one question and then we will move on.

**Q230 Jim Dobbin:** I would like a "yes/no" answer, quite honestly, out of pure curiosity. Has the toll road at Birmingham had any effect on the congestion going through Birmingham, either with regard to HGVs or private cars?

**Malcolm Bingham:** Goods vehicles use the toll road as a last resort because of the cost. If the normal M6 is congested to such a point that it might be worth their while to do so, then they will pay the cost. We have seen some companies negotiate with the toll operator of late and there are quite a few more HGVs using that road now because they have negotiated tolls that suit them for the journey.

**Paul Watters:** For the private car driver, it represents quite good value for money because it does avoid a very heavily congested part of the M6. Most people I speak to say that is wonderful and it is worth every penny they pay to go through there.

**Jim Dobbin:** I use it myself.

**Q231 Chair:** Mr Reeve, do you want to comment on that? There is no need to.

**Mr Reeve:** Surrey has no plans to introduce tolls and Birmingham is some distance away from us.

**Chair:** Thank you very much, gentlemen, for coming and answering our questions.

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### Examination of Witnesses

*Witnesses:* **Professor Phil Blythe**, Chair, IET Transport Policy Panel, Institute of Engineering and Technology, **Robin Shaw**, Chairman of Learned Society, Chartered Institution of Highways and Transport, and **Mike Mackinnon**, Director, Capita Symonds, gave evidence.

**Q232 Chair:** Good afternoon, gentlemen, and welcome to the Transport Select Committee. Would you please give your name and the organisation you represent? This is for our records.

**Robin Shaw:** Robin Shaw from the Chartered Institution of Highways and Transportation.

**Professor Blythe:** Professor Phil Blythe, Institution of Engineering and Technology.

**Mike Mackinnon:** Mike Mackinnon, Capita Symonds Consultancy.

**Q233 Chair:** How effective would you say the Highways Agency has been in managing congestion?

**Robin Shaw:** I would say, yes, they have been effective. Congestion obviously is a major problem. The capacity constraints are significant, but they have put very significant levels of investment and application of good techniques into managing that congestion. They have not eradicated that of course. We know that, and there are still plenty of problems for them to deal with, but I think it has been effective where they have intervened positively.

**Q234 Chair:** Are there any other views on the Highways Agency?

**Professor Blythe:** At times they took a long time to harness new technologies that could help in managing traffic demand, such as information technologies to provide real-time information to traffic control centres, and then the innovations we are seeing now such as the managed motorways. But in many cases, when they have been introduced, there has been a positive benefit and a reduction in congestion.

**Q235 Chair:** Mr Mackinnon, do you have a view on the Highways Agency?

**Mike Mackinnon:** No. I think they have done a reasonable job. The issues are more to do with the constraints on them and the focus that they are given, rather than their actual performance and achievements. I think within those remits they have achieved it. They should have a wider remit and maybe introduce other things that are not just focused on pure instant delivery. Some of the longer-term requirements need some work and money spending on them.

**Q236 Chair:** What sorts of things did you have in mind?

**Mike Mackinnon:** Technology, if you like. They have the best detection so that we know more about their roads and the strategic road network, but there are more motorways than the trunk roads. There are no technical standards for the trunk road part—only for the motorway part. They have not completed data collection even on the motorway section at the moment. Obviously that will come in a programme, but it has been going on since round about 1985. It has taken quite a while to get there, but they obviously have restraints on money and what they are asked to focus on at any particular time.

**Q237 Chair:** You say in the written evidence you have given us that there are better ways than managed motorway schemes to deal with congestion. Are those the sorts of things that you are thinking about? Can you give us any other examples?

**Mike Mackinnon:** This is focused at what we believe the Committee were looking for, which was the road network. The strategic road network is only 3% of our overall network and it carries 30% of the traffic. In congestion, it is not only the motorways that get congested. Our issue is more to do with the fact that we think there should be a lot more going on, on the all-purpose roads, parts of which belong to the Department but the other parts belong to the other 152 highway authorities, and how that could be better managed, giving people alternative routes.

**Q238 Chair:** Do you think there is a big problem in bringing co-ordination between the Highways Agency in relation to the strategic roads and local authorities in relation to other roads?

**Mike Mackinnon:** Yes, but not because anybody is doing anything wrong. The agency is set up with a pure focus and funding for roads. Other highway authorities are local authorities who have other issues on which they need to spend their money. There is not the same concentration or the same standards. I don't just mean on technology but in terms of differences in maintenance and operational standards. We have all seen it. There is a disparity in different areas of our road network, but for a driver it is one road network. Why should it be any different? Why should an A road, a dual carriageway that is run by the Highways Agency, be any different from one run by a local authority?

**Q239 Chair:** Would anybody else like to make any comments about whether you think there is a major problem between the Highways Agency network and local authority networks in lumping them together? Is there a big issue there?

**Professor Blythe:** There is clearly a disconnect at times. The Highways Agency has experts on board and has a particular focus. Local authorities in many cases have pared down their transport expertise in-house very much so that they do not have the same ability to deliver on projects. The interface between the Highways Agency and the local authorities has not always been as well managed as it could be. There are urban traffic management control standards for the urban areas and inter-urban traffic management standards for the inter-urban areas. The interface between the two is not as good as it could be and the industry recognises that that is something that needs to be worked on.

**Q240 Chair:** Mr Shaw, do you see any problem there?

**Robin Shaw:** There is a tension, and to a certain extent it has probably been created and exacerbated by the institutional arrangements that exist. The agency's

network has been consciously reduced, so the area it manages is down to very much the high-speed motorways and dual carriageway-instituted routes in that respect. They have been charged with focusing on dealing with the issues and the problems that arise from that part of the network. That is what their primary mandate is. Clearly, as has already been said, most of the time drivers don't know whether they are on an agency road or a local authority road. It is just part of their route and they are not really interested in whatever the institutional arrangements are.

The funding arrangements are also very different. The resources available to the Highways Agency are obviously directly made available from the Department, whereas with the local authority's resources it has to decide within its own priorities how much it devotes to improving or maintaining the highways. There is a disconnect there in terms of who does what, how it is managed and how the decisions are taken. There is a problem there and it should be addressed in that respect, yes.

**Q241 Paul Maynard:** As I understand it, the Highways Agency focuses on what is called the national strategic network. The use of the word "strategic" implies that the road has a function over and above merely being a piece of tarmac. Can I ask what you think of the concept of "strategic" in terms of our strategic road network? Do you believe there is an understanding at Government level of what is a piece of strategic road and what is not, because I am not sure I am clear what the difference is?

**Robin Shaw:** Can I start with that? The current network is primarily focused on making sure there are good high-speed connections between primary destinations, whether they are cities, airports, ports and the like. That is the focus of that priority strategic network. That is not, of course, representing everyone's journeys and it is not of course representing very often all of anyone's journeys, so there is a difference there between objectives. But it is very clear that that is the mandate of the Agency and that is what they are asked to look after and maintain and manage.

**Q242 Paul Maynard:** But would it be appropriate to reconsider that mandate? If I may use a constituent's example, forgive me. When you reach the end of the M55 on your way to Blackpool, you have two choices. You can go up to the port of Fleetwood on the A585, which is a Highways Agency road, or, as millions of tourists do, you can continue on into Blackpool on a local authority managed road. Yet, to me, the more economically important and vulnerable road is the link into Blackpool, not into Fleetwood. I struggle to understand the underpinning of this debate, which is that we have our 3% of a strategic road network and our 97% of the remainder, but the 3% seems to me to be a rather arbitrary 3% based upon what I perceive to be some sort of economic rationale rather than usage.

**Robin Shaw:** Certainly it is not arbitrary. It was a conscious decision following a detailed review. Whether it is still the right network is obviously something which could be reviewed. It will have been down to traffic flows and destinations and it

considered the priority of that traffic flow, but we probably all have our own view of what the priority should be as to our own journeys.

**Q243 Paul Maynard:** What are the other panel members' views as to what those priorities should be?

**Mike Mackinnon:** The strategic network is a good concept for building roads. Operation is quite different. You need a strategic plan about where you are going to build roads, widen roads, and you need a rationale to do it. It seems quite sensible to have a body to do that. Whether that body should be other than a single entity and whether it could be more formally connected to other road authorities is a separate debate, but the need to operate the network as a single network goes back to probably the general discussion. It is a whole road network, even if you have built in separate bits by different people.

**Professor Blythe:** That depends on what the overall strategy for running the network is. Is it for providing from A to B destinations? Is it for the economy? Is it to try and minimise emissions? There are all sorts of tensions here that will affect why particular pieces of road are strategic. But there needs to be a more strategic view of connecting the whole road network together, ensuring that we have more seamless travel and use the best possible technologies and other techniques to manage congestion and the discontinuities in our road networks.

**Mike Mackinnon:** In our paper we mention a notion of what we call the managed road network. That is not a real name but gives you the concept. If you get a satellite navigation system, most of them—the later ones—will give you three routes to your chosen destination. Most people on most journeys have two or three routes. Clearly, they cannot all be on the strategic road network. One of them may be, and in a lot of cases none of them will be on the strategic road network. It will be a local authority network. That puts the whole thing into a different perspective and we believe we could do much better with the current capacity.

Greater use of technology would be part of the solution along with improved signing, lining, all the basic things. I am sure every local authority, if it had money enough to do it, could review its own area and make changes to improve traffic flow on existing roads. It will also require some new build because there are pinch points that may not have existed 10 years ago. It is not clear who would carry out this overall review. Our current arrangements have been reached as a result of modification on modification, and maybe part of what this Committee is asking is should we go back to a blank sheet of paper and ask, "What do we want to do? If we are starting with this, would we run it the way we are running it?" I suspect the answer would be no.<sup>1</sup>

**Q244 Chair:** But you can never actually go back to a blank sheet of paper because systems are there and people have responsibilities. Given where we are, who should be responsible for changing the way things are

<sup>1</sup> Note from witness: This does not mean go back to a blank piece of paper with respect to the actual network but to what we want and expect from it in the current climate.

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done? Is there a role for Government or is it local government, or who is it? What should happen now? You have all spoken about there being certain problems or lack of co-ordination and shared responsibilities. Who should take action now? Who has some suggestions?

**Mike Mackinnon:** In the paper we said we think there should be a more formal body. If you like, we create European standards by having a body of experts and interested parties. We do not do that with our roads. As has been stated earlier, the Department in its paper says it believes in localism. I think England is a unique network. I do not think we have localism as such. We have a network that serves cities and towns. It is a national network but we do not run it and operate it like that, and with 153 authorities it is hardly surprising.

**Q245 Chair:** Mr Mackinnon, you have put forward the suggestion for a concept of managed routes. Could you tell us how that would work?

**Mike Mackinnon:** Obviously it is a massive job, and, if we have not sorted it out with all the august people behind me, we are not going to do it today. But it just means you have to start off with a concept that there is more than the strategic road network. There is a road network, and in each area the strategic road network would be part of it and each highway authority would designate certain of its roads, if you like going back to the old A, B and C road concept. Some of these local authority roads would be given higher priority. They would get funded and institutionally run, and the standards that would run on them would be consistent.

20 years ago the Department, as it was then, used to set standards and issue advice about standards. It used to support development of traffic signals. That has all gone. There is nobody that has taken over that role. There is nobody with a mandate to do that any more. In that, we have also lost the concept of a market for suppliers to aim at. If you had a national network and then somebody wants to develop something to improve it, that is a big market that is worth somebody developing. If you have 153 slightly different things, it is very difficult to see how we are going to get major changes.

**Q246 Chair:** How would the Highways Agency and local authorities work together under that scheme or would you not have that distinction? How could it operate? Mr Mackinnon, do you have an answer?

**Mike Mackinnon:** I thought I would let somebody else speak. We put it in the paper. We think you could form a committee that would have all the relevant members on it. I do not mean all 152 authorities, but, if you like, selected ones that would represent small and large highway authorities because they are quite different and their requirements are quite different. It would also have on it the Department for Transport, Highways Agency and transport specialists. It would, if you like, take away the Department being the sole arbiter of everything that happens because that is broadly what happens now, from our perspective.

**Q247 Chair:** Professor Blythe, how do you see this, or are there any aspects to this idea that could be taken forward?

**Professor Blythe:** It is important to come back to a point where the national strategic road network and the local road networks are co-ordinated in a better way. It is a role in which the Department for Transport and the Highways Agency used to be very proactive. The danger at the moment is that we are seeing that people are trying to use sticking plaster solutions to solve individual problems and in many cases that involves a small scheme or introducing technology in a local authority area, whereas we know that, if there is a co-ordination and a number of local authorities in conjunction with the Highways Agency are coming up with a bigger strategic scheme, you could generate additional benefit for that. With there being so many local authorities in the UK, each of which could select its own scheme, the ability to have standard specifications and guidance that they could follow would be extremely helpful.

Localism is fine. It allows the local authorities that are proactive and have expertise in-house to go away and do some great things, but it leaves a large proportion of the local authorities as also-rans who really do not have the capacity, capability or knowledge to take up those benefits. They are the ones that will suffer.

**Q248 Chair:** When you say they do not have the capacity, are you referring to current resource problems or is it something bigger than that?

**Professor Blythe:** It is resource, knowledge and the guidance to be handled in introducing such schemes, particularly those that involve intelligent transport systems and new technologies. They just do not have the capability to do that, so they are left further and further behind, while the few great examples of authorities that do go forward working with the technology go further and further. There is this gulf occurring because that is a black hole that the DfT and the Highways Agency used to fill by providing those guidance notes and those specifications that all could follow and could go to a supplier and say, "If you meet this type of approval and this specification, then we know that your technology is interoperable with others."

**Q249 Chair:** How could this change?

**Professor Blythe:** Bringing the necessary authorities, the local authorities, the Highways Agency and Government, along with suppliers, together to work to redress this disconnect we have at the moment. It really is there, and in talking to most industries you find that this is inhibiting them and inhibiting local authorities now.

**Q250 Chair:** Mr Shaw, how do you see this?

**Robin Shaw:** First, route management as a concept is not new. It has been around for some time and there are plenty of good examples of it being implemented. We are touching here on an issue where perhaps in England, and there is a distinction here between the rest of the UK, the extremes between the agency and the local highway authorities have perhaps been accentuated by constitutional and institutional

changes. You have a large number of small highway authorities now compared to the old original county highway authorities.

You asked how that would be changed. Of course, it is primarily in legislation, so it would have to change and be driven by this House in terms of changing that. If you wish to change the institutional arrangements and the set-up, who is responsible for those highways is actually embodied in statute and the responsibilities are there in statute. Obviously, the Department then does make decisions in terms of delegating its roles to the Highways Agency and it defines what it wants the Highways Agency to do, but at the very bottom level it is actually within the statute.

**Q251 Chair:** Do you think some of the problem is because there are smaller authorities?

**Robin Shaw:** The issues we are talking about here have been accentuated because of the fact that we have moved to a large number of small highway authorities, we have one Highways Agency, and its role has been consciously restricted to the high-speed motorway and dual carriageway network. You have that tension and it has been made worse, yes. It is still something that can be dealt with, obviously, by full consultation as long as the people concerned are incentivised and required to do it.

**Q252 Paul Maynard:** Just following on from that, would you therefore agree there might be a case for trying to assess our road network not on a local government level but perhaps on a regional level and be able to identify a regional network of roads, a network perhaps more important than the cul-de-sac round the corner from me, and that there might be a role either for a regional body, a traffic commissioner or some such role, or maybe even the integrated transport authorities in some areas taking on more responsibility for the roads in their areas? Is it trying to shift it up one level from the very small local government body and down one level from the large Highways Agency?

**Robin Shaw:** As you said earlier, there are plenty of origins and destinations which are not currently the termination point on the high priority strategic network. There is obviously a significant part of the network and a significant part of people's journeys which either are partly on that high-speed network or perhaps not at all. At the moment that responsibility is down to very local levels. We know, with the size of local highway authorities, many of those journeys will cross several boundaries and that must therefore create a situation where the management of that route is rather broken up in terms of its arrangements. What one local authority might consider as its priority—a town or community perhaps—is not necessarily the priority for someone who is travelling the whole route, which I think is where your thoughts are coming from. Clearly you could have a different institutional arrangement looking at that. You could have regionally based highway traffic authorities or whatever. Joint traffic authorities have been proposed in certain areas, and obviously in the metropolitan areas you have something like that in terms of the public transport already. There are some models out

there for looking at this, and that probably would be the way you would have to go to make the change and the behavioural change that is necessary.

**Q253 Paul Maynard:** What are the positive reasons that we have kept with the old system of 153 highway authorities? There must have been a reason why we are still where we are. Is it inertia?

**Robin Shaw:** No, it is not. It has changed several times. When I started out, as a professional engineer, we had a much smaller number of large county highway authorities. It is a change which has occurred in my lifetime.

**Q254 Jim Dobbin:** We have talked about the local authorities' highways departments and Highways Agency and others, but we have not really mentioned the impact that the other big agencies have: the utilities, for example, water, electricity, gas, and the lack of co-ordination of roadworks. For example, there is very often just one repair following another in the very same area. Is there not an issue of lack of co-operation and planning there? Is there not something we could do to try and do that in a better way?

**Robin Shaw:** I can start on that one. Obviously there are problems in certain areas. There are also some examples of very good practice where the utilities are working together and making sure that they do minimise the disruption. Sadly, we all need the services that these people provide, and certainly the demand for the services of telecommunications contractors has become exponential in recent years. Most of the time they do have to dig a hole in the road in order to lay in their service provision when actually we would like them not to have to do so.

The co-ordination role has been looked at, and legislation has been introduced again in my working life to try and change and improve the way that that is dealt with. There are financial regimes and penalties in place if utilities do not comply, and highway authorities have recently been given more powers to police that. It is early days yet to see how much difference that will make, but I do know there is an awful lot of work, perhaps unseen, that does go into the co-ordination of these activities. Obviously, if you as a driver come across a piece of roadworks which you did not know about and were not forewarned about, you do not know how much work has gone on to ensure that maybe two or three activities carry on at the same time while that essential piece of work is going on. It is difficult to judge in every situation, but I do agree that more could be done.

**Professor Blythe:** It is an issue that has been raised in some recent reports on national and critical infrastructure and how telecoms, water, energy, etcetera, interact. There is a recognition that there needs to be more co-ordination. There is quite a lot of work going on in that space, but at the same time if you dig up a road, a strategic network, and you shut it for a while, the delay and the cost to business is really significant. Maybe some of that can be addressed in other ways.

I remember the day that the congestion charging in London was launched, TFL was monitoring all the

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roads on the outside of the congestion charging zone. They saw a water van turn up to dig up part of the road just outside the congestion charging zone and they stopped them digging up for the day, although they claimed it was an absolute emergency. Apparently, they did not turn up again for nine months to complete the job. That is how much of an emergency it was. There are issues and there are things that could be done better, clearly.

**Q255 Chair:** Thank you. Mr Mackinnon, did you want to add anything to that?

**Mike Mackinnon:** The only thing I have to say is as a practitioner—surely we could do with better co-ordination. Health and safety is obviously an important subject. We take a lot of our carriageway for maintenance out and we have lane rental schemes. Maybe somebody could look at a more innovative way of carrying out roadworks so that they might last longer but have less impact rather than rush in and cause major chaos. There is always going to be a balance with that.

**Q256 Julie Hilling:** I am struggling to grasp what you are saying that we should be doing. Mr Mackinnon was saying that we should bring people together to discuss how we should manage it all together. What are some of the solutions that should be put in place in your view? What is it about? How can we make the whole of the network better?

**Mike Mackinnon:** The fundamental thing that is missing is that we do not have real-time data of our network. The Highways Agency has the best data on part of its network. In the Department's report, they accept they have to do congestion monitoring using speed, which is not effective. If we want to manage the physical carriageway we have, we need to know what is happening in real-time, not just when we have incidents, although it becomes more important when there are incidents. If you are going to put vehicles on to another road, you need to know what is going on, on that road. Say you have a major problem. If you divert it on to another road, it might be closed. At the moment we do not know.

There is a lot of data around and it is kept in separate camps. Why can't we bring it together in a more cohesive way and then fill in the gaps, which obviously is expensive and is going to take a while, but, again, if you had some priority on your roads,

your routes and all the rest of it, you would have a plan that you could work around? That would be the biggest single thing that we think could happen, plus some small improvements with signing and traffic signals.

If we want to reduce carbon reduction, we are going to have to review our traffic signal algorithms because they are built on a concept of probably 20 or 30 years ago. We have had some small improvements, but there has been no step function innovation. We are going to have to give priority to some routes, which is going to disadvantage others. It is going to be uncomfortable, but, if we want to achieve that, those are the kinds of things we are going to have to look at.

**Q257 Chair:** When you say "different camps", you mean different authorities—highways authorities, local authorities?

**Mike Mackinnon:** Yes. We have Traffic Masters. There are a variety of fleet operator. There are all sorts of people with data, but we do not bring it together. Because we have started off with a notion of having to sell data, data collection has never been properly focused. The issue is what does the country want?<sup>2</sup>

**Q258 Chair:** What type of data are you referring to?

**Mike Mackinnon:** Traffic data. Some freight operators know where their vehicles are at any time so they can tell you what the journey time is on a route. You do not necessarily have to put equipment in the road, which is what we currently do. The Highways Agency put in loops; the local authority put in loops. There are all sorts of detection means. If we had electronic licence discs we would probably solve the whole problem. You do not need to know which vehicle, but you would know how many vehicles were travelling where and at what sort of speed. There are lots of technological solutions, but we should not get too excited about technology. It is about institutional funding. It is about the fairly basic things that we have not done.

**Chair:** Thank you very much, gentlemen, for coming and answering our questions. We have a lot of food for thought there. Thank you.

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<sup>2</sup> Note from witness: Whether the country wants to let private industry collect and sell data or for the road authorities to collect, use and possibly sell the data? There is a lot of data available but our institutional arrangements prevent us from making the best use of it.

### Examination of Witnesses

**Witnesses:** **Graham Dalton**, Chief Executive, Highways Agency, **Simon Sheldon-Wilson**, Director of Traffic Management, Highways Agency, and **Assistant Chief Constable Nick Croft**, South Wales Police, ACPO, gave evidence.

**Q259 Chair:** Good afternoon, gentlemen. Welcome to the Select Committee. Could you give your name and your organisation, please, for our records?

**Simon Sheldon-Wilson:** Simon Sheldon-Wilson, Director of Traffic Management for the Highways Agency.

**Graham Dalton:** I am Graham Dalton. I am Chief Executive of the Highways Agency.

**Nick Croft:** I am Nick Croft. I represent the Association of Chief Police Officers' business area for Roads Policing.

**Q260 Chair:** Could you tell us the main reason for congestion on Highways Agency roads?

**Graham Dalton:** There are two predominant reasons. Probably the main one is volume of traffic and dense

traffic just slowing things down, which is one popular view of congestion. The other one is the impact of incidents, whether they are very minor ones from a bit of debris in the road causing people to slow down or stop or the very serious ones that require a carriageway to be closed.

**Q261 Chair:** You will have heard witnesses talking to us earlier this afternoon about problems after there have been incidents, whether they have been major or minor ones, and the time it takes to restore traffic flow. Mr Croft, what is your view on the role of the police or other traffic officers in dealing with this?

**Nick Croft:** The Police Service prior to 2004, when the Traffic Management Act came in, was obviously very concerned about the role that police played, especially after fatal accidents or serious collisions or other problems where we had to shut roads. We have worked closely with the Highways Agency, especially since traffic officers were introduced, to make sure that we do everything we can to work together to make sure those closures are limited. One of the issues we have is that we represent Her Majesty's Coroner when we are investigating road deaths and we have quite a stringent protocol which we work to, which occasionally means that roads get closed for some time when we are collecting evidence to present to determine the cause of a crash. We have just carried out quite a detailed review jointly with partners to look at how we can speed this up and make sure that roads are open faster without losing the evidential value, certainly from a policing perspective, of the best evidence that we can get.

**Q262 Chair:** Is it realistic to reduce the time involved in major incidents?

**Nick Croft:** Yes, it is. We can make better use of technology. There is a potential to negotiate with coroners to look at the evidential standards that they require. We know there are issues on co-ordination and how we co-ordinate with our Highways Agency colleagues, in particular on motorways. That can be very important. Again, it can be very important how the local police forces interact with the traffic authorities locally when they are not roads that are managed by the agency.

**Q263 Chair:** We have also heard comments from people talking to us today and before today about a lack of co-ordination between the Highways Agency and local authorities on managing roads where the two types of roads come together. Do you think that is a major issue, Mr Dalton?

**Graham Dalton:** To be fair, you have heard a number of views. There is an aspect of the role of the Highways Agency that has not really come out in discussion thus far, which is not just about managing the immediacy of congestion and traffic today, but it is around the planning regime and meeting long-term planning and the role that the Agency has in consultation with local authorities, previously with regional assemblies, and hopefully with LEPs once they are established, on guiding and shaping development, because motorway junctions especially and trunk road junctions are very attractive places for

developers to put in either commercial or retail development. That is an area particularly where we have worked very strongly with local authorities and with planning departments at authorities to try and build into new planning consents the policies that will drive use of transport and try and lock in at that stage alternative means of access or alternative transport to get to these developments, such as bus services to serve out-of-town business parks. That is an important area where we work very closely with local authorities.

When it comes to traffic management and the here and now, for the immediacy it tends to be the big urban authorities that have real-time traffic management and control rooms. We work very closely with the likes of Transport for London because we have a number of motorways that feed straight into London and stop at the end, and then Transport for London pick up. We are monitoring those, and particularly when something goes wrong there is an immediate liaison between control rooms to manage it in that way. At 7 o'clock at night, when something has gone wrong on the road leading into a town and it is an authority that does not have an active traffic controlling function because it has not set it up, then there is very little one can do.

**Q264 Chair:** How big an issue is this? Is this a big problem?

**Graham Dalton:** Part of the answer is through the development of how we manage our network. As Mr Croft pointed out, until five or six years ago, the Police Service carried out, fundamentally, the traffic management function on all roads. I now have traffic officers, and Mr Sheldon-Wilson manages our traffic management capability on motorways in England. We have an oversight in our control rooms of the trunk roads, but, indeed, the police are the first responders on those. That is something that we have developed over a relatively short period of time as the network has become more congested. Some local authorities are dealing with more congested networks and having to do it, but with regard to the rural authorities, for example, it is a question of whether they could justify spending the money and either the investment in assets or the response crews and teams to go and do something. It is something that comes with the growing density of traffic.

**Q265 Julian Sturdy:** This is specifically to the Highways Agency. Do you feel that the network area that you are now covering has been reduced too much over the past decade through detrunking of certain A roads? I know it is easy in hindsight, but do you think it has been reduced too much?

**Graham Dalton:** The last major review was in 1998, if I recall rightly, which is 12 or 13 years ago. It was about three years ago that we finished and the last bits were detrunked. The world has changed quite a bit in that time. There are undoubtedly some bits that, if one were to look at it fundamentally again with a will to change, you might change. I know Ministers in this Government have looked at the purpose of the strategic road network. Listening to some of the discussion earlier, they have been fairly well defined,

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but there is a strategic road network to serve the big urban or economic centres, to serve the big ports and airports, the gateways and, of course, picking up the cross-border bit, the A1 north of Newcastle is the link-up between Newcastle and Edinburgh. That is about right. There is a question of how we get on to what we call the primary routes, if you like, the bits of dual carriageway that are not trunk roads but might feel like it to anyone using them. As technology has grown, we start asking the question not about who owns it and this absolute ownership, but whether, with the sort of traffic management and co-ordination oversight we have, there is a way we could roll that out more widely to those bits of route that merit it and start managing the traffic on primary roads without necessarily changing their status or ownership.

**Q266 Julian Sturdy:** Basically, you are saying that you would manage, potentially, some of what could be deemed as the strategic highway network that is still under local authority control. That would stay under local authority control but you would manage it more as part of the overarching function.

**Graham Dalton:** It is something to look at. You may be aware there is a review of the Highways Agency going on at the moment and what they should do. You talk about the boundaries, but we have this capability in the traffic management function, which on trunk roads especially is a monitoring function. We have cameras increasingly over bits of the network. We have the loops and detectors. We are picking up traffic flow. It is not everywhere but we have a better monitoring and co-ordinating function. It is a question of whether you could do that without going into a full rethinking exercise. That is the sort of area we should explore, but it is only when that piece of road is ready for some investment on it, to put the technology in, or to bring it to one place to manage it better.

**Q267 Paul Maynard:** Can I ask Mr Sheldon-Wilson about the highway traffic officers because obviously they are a relatively new appearance on our roads? Some call them traffic wombles and think they are quite nice and cuddly.

**Graham Dalton:** We don't.

**Q268 Paul Maynard:** Others don't. In the period since they were introduced, what positive difference do you think they have made to the free-flowing nature of our roads and has that been quantified in any way?

**Simon Sheldon-Wilson:** As Mr Croft said there, the Traffic Officer Service is still relatively new. It was introduced in the West Midlands in 2004 and rolled out across the whole country by 2006. The very visible aspect of the Traffic Officer Service is the on-road service that we see patrolling the network. Behind that, we have seven regional control centres and the National Traffic Control Centre that is monitoring the network performance. Those regional control centres are looking after the entire strategic road network of all-purpose trunk roads and motorway routes. It is a Traffic Officer Service on road. There is a recognition of the expertise now that the Traffic Officer Service has in clearing incidents quickly. We

have attended approximately 318,000 incidents in the last financial year. A fair proportion of those—approximately 90%—are led by and are addressed by the Traffic Officer Service, which traditionally would have been dealt with by the police. Because we are a dedicated function, in terms of dealing with debris, broken down vehicles in the live lane and non-injury accidents, our traffic officers are able to deal with those immediately without the need to call in the police.

There are two benefits. First, we can respond to incidents quickly and clear them, which prevents secondary incidents and congestion. The second benefit, of course, is that police resources are then released to do other policing activities, which is a wider benefit to which Mr Croft would refer.

**Q269 Paul Maynard:** Has there been any quantitative analysis done of input and output that would justify their introduction, because clearly they would not come free of charge?

**Simon Sheldon-Wilson:** Yes. It has offset some of the cost of policing. There was some research done a little while ago which tested out the benefit of the Traffic Officer Service against the incidents where we felt the Traffic Officer Service would have a benefit, i.e. those where there would be no police interest. The research suggested there was about an 11% improvement in traffic flow, i.e. a reduction in congestion as a result of the traffic officers doing their work.<sup>3</sup>

**Q270 Chair:** How do you get information to people travelling so that they are aware of conditions and possible congestion and possible problems? How is that done?

**Simon Sheldon-Wilson:** I referred to the National Traffic Control Centre, which is a centre we have located in Birmingham which monitors the whole of the strategic road network. We are in the process of replacing that with a new function called the National Traffic Information Service, which will start from September of this year when the existing PFI contract expires. The National Traffic Control Centre monitors the entire network through loops, through automatic number plate recognition, through CCTV capture, and processes all of that data in the centre, analyses that data for what we call abnormal congestion events and then provides that information out to customers through a variety of means. Traditionally, we have used things like the Traffic England website where we have put out live traffic data. We have direct feeds to the media—to local radio and major broadcasters. We have moved the technology on now with things like iPhone apps so that people who have access to mobile technology can access real-time traffic information as well.

You heard earlier as well about the strategic signing on the network. The National Traffic Control Centre will place variable message sign information across the network in a wider sense. Someone travelling from

<sup>3</sup> Note from witness: This research suggested that overall a periodic delay was about 11% lower than expected in 2006 compared with 2003. A periodic delay is the element of congestion that the traffic officer service is expected to improve through early detection and clearance of incidents on the motorway network.

the north of the country who may be travelling to London will get information some distance away about an incident that is happening if we believe that they will be affected by that incident when they arrive in that area. So there is some intelligence in how and where we place the information. But our aim is to make information available to people before they leave for their journeys so that they can choose the route they take or whether to make the journey at all, and people who are on their journey have access to live traffic information through variable message signs and other devices.

**Q271 Chair:** Mr Croft, do you have any ideas about how this could be improved from your point of view or do you think the system works effectively?

**Nick Croft:** I think the system works well. Some of the issues for us which other people have touched on is how people access the source of that, because there is information on the internet, on mobile phones and in a lot of places, but some people just do not know where to find it. A really important issue is how we market that because we find, as people have already said as I have been sitting here and listening, that, if people know initially, up front, that there is a problem then they will plan an alternative route. The earlier they can get that information has to be better. We would strongly support anything that promotes how people can access that kind of information. Traffic Wales are doing a very similar thing across Wales.

**Q272 Julie Hilling:** I just wanted to follow up on that because it is about how people find out that information, particularly if you are travelling, because I do not think you would approve too much of people going on their mobile phones, having a look at their app to see what the traffic is. The other thing is about real-time. I recently travelled back up to the north-west. I am getting signs in London telling me the M6 is closed. Actually, I do not want to know that when I am in London. I want to know if it is going to be closed in three hours' time when I get to it. In fact I diverted and it was open. There is that question about how we can do that better, how we can get the information out there and how we can make that real. The other thing about information is that quite often you see congestion signs and then when you get to it there is not any congestion, which means that you start to ignore the information that is there. I am talking particularly about the roadside signs.

**Graham Dalton:** There are two areas to talk about there. If the M6 is closed and you are just leaving London, we are dammed if we do and we are dammed if we don't. But it is getting something up on the signs and encouraging people, hoping people will tune into radio and use that TP button—the travel button—on the radio. We have very good traffic radio broadcasting, probably 18 hours a day, seven days a week now. That is something that has changed in the last four or five years. It is getting weekend coverage as well from local broadcasters and using it. With local radio stations it is very good and you do get that update.

We get a strategic sign up—and it might be you or it might be a truck operator—saying the M6 is closed,

and if it has been put up like that it will be a serious incident. It will be police led, probably with a serious injury or possible fatality, and probably at that stage they do not know whether it is going to be shut for two or three hours or seven or eight. It is worth getting it up there at least to make that alert. The one thing we have not done, and I have raised this with my own staff a couple of times, is to put something up to say it has reopened. Is that giving out too much information? That is one we have not got quite right. There is the other bit where we talked about congestion ahead. Using lots of data and trying to keep cost-efficient, we use automation as much as we reasonably can. A lot of the variable message signs are connected up to detection loops in the road that detect slower moving traffic, either very high numbers of vehicles, which implies it is about to slow down just through the sheer volume of vehicles, or it is just slower moving. It puts up a warning and a lower advisory speed limit plus “Congestion” or “Queue ahead”. That is automated. That in itself can just ease people back and it eases the block. Sometimes, the fact that you are not seeing congestion there just means that it has worked and eased it. I know it looks a bit odd. The real purpose of that is to stop this business that we do not get so often, which is people steaming up, not knowing, and just running into the back of traffic. Then you get the rear end shunts which cause delay and closure. They are two very different types of information. Tuning that automated data so that it is right most of the time is still a bit of an art and we have still got more to do with that.

**Q273 Julie Hilling:** Can I ask about driver behaviour as well? There is that question about how much driver behaviour leads to problems. What can we do about it, Mr Croft?

**Nick Croft:** It is a huge, huge issue. It is always going to be big, isn't it? The kind of things that annoy people—you have all been there as drivers, I should think—are the road rage, undertaking, bad lane discipline for those people that generally drive carefully, and the majority of our motorists do.

To pick up Graham's point there, if you look at the role of the variable message signs to slow people down and stop the sudden braking, then the concertina effect and sometimes a completely stationary carriageway, before variable message signs the police used to do a thing called tailback where a police vehicle would reverse up the hard shoulder with the rear flashing red lights on. It is effectively performing that same role, giving people that warning. Driver behaviour is something that contributes to people's frustration. It contributes occasionally to congestion where people will cut in on people and they will undertake. There are enforcement methods that we can employ and some of them are automated ones. Some police forces now are extending the role of the casualty reduction cameras to ones where they are prosecuting for mobile phone offences, no seat belt offences, dangerous driving offences, etcetera. That is something that some forces are doing and we are looking with interest at those kinds of results to see if that is impacting on driver behaviour, because the early indications are that it is making a bit of a



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difference. ACPO would say that there is empirical evidence now that, where you have traffic enforcement cameras of whatever kind it is, be it time distance cameras, single flash cameras or casualty reduction mobile speed cameras, whether they are doing speed enforcement or other offences, there is a deterrent effect and speeds will come down, casualty rates drop and compliance goes up.

**Q274 Julie Hilling:** Is there more that we should do about teaching people how to drive on motorways? It is not part of the driving test, is it? Should we have another compulsory bit in the driving test, for instance?

**Nick Croft:** It is something that the Police Service have commented on quite a lot over a number of years. Something that seems to indicate there is some value in that is the Pass Plus scheme where young drivers can go on to that scheme and learn how to drive on motorways; they will have tuition on fast roads which they can now drive on and then they will get a reduced insurance premium as a result of doing that Pass Plus course. Also, there is some evidence to suggest that once they have done the Pass Plus course, they are safer drivers, less likely to be a young driver who kills themselves or passengers in their car, because you cannot get away from the fact that the major group of fatalities in the UK are people aged between 16 and 24. They are disproportionately represented, other than motorcyclists.

**Julie Hilling:** Males.

**Nick Croft:** And males, yes. Statistically, you are absolutely right.

**Q275 Chair:** Are on-the-spot fines, as suggested by the Government, a good idea?

**Nick Croft:** We have mechanisms now where we can fine people. We think there is some value in that there is a political debate that has raged around the Police Service about whether you are going to let police officers collect money at the roadside from motorists. The Police Service will say you should be able to trust police officers to do that, but there are a number of concerned bodies that will say other countries will show that that leads to corruption and it will lead to other forms of problems that we do not want. Personally, I think that there is value in that, but we need to make it as simple as possible because the countries that do it find that, occasionally, it is a very bureaucratic process to take the money from a motorist and make sure that that gets channelled into the right places.

**Q276 Chair:** Could there be an issue as well about the use of discretion as to which motorists were fined and which were not?

**Nick Croft:** Absolutely. But the basic premise of British policing is that police officers should be able to use discretion. ACPO would say that there is a body of the public that think there is no discretionary policing at all now. That is not true. Chief Police Officers encourage their police officers to exercise discretion. I always speak to my police officers and staff about the fact that, if they can get someone into education rather than punishment, that is a far better

route, because, again, our research shows that where you take an educative-type approach it is far more effective than one that just punishes someone. We have schemes in place like the National Driver Rehabilitation scheme which retrains people. We have speed awareness courses which stop people having three points on their licence if they go through the course successfully. We believe they are very effective diversionary measures and should be pursued more.

**Q277 Julian Sturdy:** I would like to touch, if I could, on the 2+1 lanes. I do not know whether you think at the moment, given the economic climate, 2+1 lanes are an effective way of cutting back on congestion. I know the Highways Agency do have a few 2+1 lanes in operation, don't they?

**Graham Dalton:** You are talking two lanes one way—

**Julian Sturdy:** Yes, sorry.

**Graham Dalton:** Are you talking about tidal flows?

**Q278 Julian Sturdy:** Yes. You have two lanes going one way and one lane going the other. Rather than an expensive carriageway reconstruction, you are using the existing carriageway to create another lane on some of the major A roads.

**Graham Dalton:** There are some bits of trunk roads, a bit of the A303 in the south-west to my mind, where I recall alternate bits of the centre lane are used alternately in either direction. I am not sure what the statistics are for that. That was a development from having a third lane which could be used in either direction. It was generally felt there was a bit of bumper-to-bumper fighting it out, and the casualty statistics were quite high. For high-speed roads, for which we are responsible, the general sense is that, even though most of these have been built, there is enough land there. You can use retaining walls or whatever at the side. We just segregate the lanes and have segregation, with central barriers.

**Q279 Julian Sturdy:** They do that on the continent, don't they? They have 2+1 lanes on the continent with segregated barriers.

**Graham Dalton:** I am not personally aware of those, but I can quite understand that happening and presumably staggering it so there are some overtaking opportunities. But central reservation barriers are the key to stopping those crossovers, stopping those high velocity, high-impact incidents and they become more lightly damaged only.

**Q280 Julian Sturdy:** Is it something the Highways Agency have been looking at?

**Graham Dalton:** Not particularly. Our main effort is improving capacity. There are the three sorts of schemes we are doing. There are the managed motorways and the hard-shoulder running, which is getting this additional capacity on existing motorways which we were talking about earlier. There are trunk road schemes. Again, one talked about earlier was the A3 and the bypass through Hindhead. It is bringing that section of road up to the same standards as the road either side. The A46 in Nottinghamshire up into Lincolnshire is 20-odd miles going from a substandard single carriageway to a full dual carriageway route.

Then quite a bit of effort is put into the small schemes that ease the bottlenecks: things like junctions and putting traffic signals on junctions or the slip roads around them, just to ease those queues. Those are the sorts of schemes we do.

Where it is trunk road improvements, the ones we have done recently are going from a highly substandard single carriageway, probably with gradients and horizontal curves on it that reduce sight lines, and just building a new one. There is not a lot to be gained by just putting a hit-and-miss 2+1 lane on there.

**Q281 Julian Sturdy:** On the safety issues, Mr Croft, just going back to this 2+1, is that something that would concern you for highway safety?

**Nick Croft:** The only time it becomes a concern from a policing perspective and on behalf of the Ambulance and the Fire Service is when we are trying to access scenes. On managed motorways, for instance, with regard to the M42, which I led on the policing side when I was head of the Central Motorway Police Group, we were concerned at the very start of that about how we would access carriageways at the times when all four lanes were shut. That has proven to be something we need not really worry about because it is very carefully managed and the lane closures, when they are put on, are very carefully done. I went across to Holland with a representative from the Highways Agency to see how the Dutch do it because they have been using it successfully for years. I saw it used superbly there. The only time we have a worry for the development of it in the UK is where we have very long sections of motorway. For instance, on the M42 around the Midlands, most of the junctions are very close, so we do not tend to get very long tailbacks. Our only concern would be where we have four lanes of stationary traffic over 12 miles between junctions. It is how you get the emergency services to people. If it is a matter of life and death where, very unfortunately, minutes can make the difference between someone living or dying where their airway is blocked, for instance, we need to get people there quickly. There is just, I suppose, an element of caution for us to say how we make sure we can do that. There are ways round it, but we just have to make sure that when we go for those schemes, we are going into them with a full knowledge of how we access the route at times of crisis.

**Q282 Chair:** Would you say that the managed motorway schemes have been successful in reducing congestion?

**Graham Dalton:** Yes. Again, it is about reliability of journey times. We have talked at length about the M42 scheme, Mr Croft just referred to it. Earlier this year we opened a section of the M6 just north of Birmingham, having opened a section of the M6 at the southern end of Birmingham a year ago. I think you are getting some of the feedback coming from the heavily congested section just north of where the M5 and the M6 come together. People are saying, "It's great. I can leave home 15 minutes later in the morning." It is just getting that steady flow through.

It is the variable speed limit and the use of the hard shoulder that is letting traffic flow through.

**Q283 Chair:** Is it limited on how far this could be used? Mr Croft, in the written evidence you sent us, you were very critical of extending this to some of the other motorways. Just now you said there were other ways round the problems you identified. Are you sure that there are other ways round it, because it doesn't look like it from the way you are putting it?

**Nick Croft:** It goes back to making sure that when there is a problem we are absolutely joined up in the way that we approach the management of that scene. As long as all of the emergency services are working in the same way, they are viable options. Certainly from a policing perspective, because the congestion now is not there, we are not getting the tailgating and the minor collisions that we used to get. From a policing perspective, there are much fewer serious accidents on managed motorway sections than we used to see. It is quite noteworthy really. I do not think there has been a fatal accident since the M42 managed motorway was introduced.

**Q284 Chair:** Have there been any incidents that have tested whether the emergency services could get to scenes of accidents quickly enough where the hard shoulder is in use?

**Simon Sheldon-Wilson:** With regard to the number and severity of accidents on the M42, which is where the motorway has been managed the longest and therefore we have the most data on it, it has reduced. There have still been incidents on that network. As Mr Croft said, we work very closely with the police and other emergency services. Because the level of control we have over the motorway is very strong, when incidents do happen we are able either to close the hard shoulders to make it into a hard shoulder again or close other lanes because of the technology we have to provide access to the emergency services. The feedback we have had is that, while there have been incidents and fortunately no fatalities, there have still been some serious incidents. We have not had an issue where we have not been able to get the emergency services to the scene in a prompt way using the technology we have to control and move traffic back off the hard shoulder and allow the emergency services access to it that way.

**Q285 Chair:** One of the frustrations motorists complain about is when they are driving maybe on a motorway, maybe on another road and a lane is closed off or there are very slow speeds in operation there and the motorists cannot see the reason for it. Mr Croft, that is something that you identified in the evidence you sent to us, if I am correct. I think it was from your statement. Who decides what the lane speeds will be and who decides when the lane is closed off?

**Nick Croft:** The Highways Agency manages those roads.

**Q286 Chair:** So it is the Highways Agency to whom I should be addressing this point. Mr Dalton, do you

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decide which lanes are closed off and which speeds should be reduced?

**Graham Dalton:** For roadworks, yes, we do. We manage a schedule of roadworks, which is just a very large database, so we know who is intending to go out and do what and when. Particularly for the longer-term roadworks—and this is where it is on for days, weeks or months at a time—we certainly endeavour on the core parts of the network to maintain the same number of traffic lanes as we had previously. If anyone is familiar with the M25 widening that has been going on for two years now, we have maintained three lanes of traffic each way right through both peaks of the day, right through the day, but some of those lanes are narrower. We have put in a speed limit, normally a 50 mph limit. That means that heavy goods vehicles and cars are running at the same speed so you get a better utilisation of the space because there is not this car traffic trying to keep out of lane one or even just keep in the right-hand lane because they do not want to be with the trucks because they are slower. The throughput tends to be smoother and average speed cameras have been very effective in this, just getting that smooth traffic flow through. It gets more traffic through, and it is safer for the work force because we have fewer incursions into the work site and the ones that do happen are less severe. We have to remember that we really are putting people out working very close to some very fast-moving traffic. It is those together.

In a number of those cases we keep the speeds on even when people are not working, partly with the cost of setting it up and taking it off, but because there is still this business of mixing different types of traffic with different permitted speeds otherwise and just keeping that capacity and traffic moving through steadily. It feels a bit slower, people do not always like it, but a lot of the feedback we get is that they realise they are not getting the queuing generally to go into roadworks. Overall, again, they have had a predictable journey. It has cost them a few seconds but it is only a few seconds.

**Q287 Jim Dobbin:** I have just a silly question. If there was a sustained period of economic growth, do you think there would ever be a time when we would have to limit the number of cars that families have?

**Graham Dalton:** That is always the question, isn't it? Mankind has a fantastic ability to adapt and cope with pressures put on us. I have quite a faith in some of the technology coming to part of our rescue. You were hearing earlier that people adapt their working day and their travel patterns to demand. This is not just roads. This is rail, aircraft and moving around to adapt

to demand. Would we get to a mandatory "Thou shall only have one car and only use it on Tuesdays"? I think it will be a slower process of getting there.

The question would be which bit goes first. People will adopt the system that works best for them, and when they find there is an alternative mode of transport or an alternative time of travel or working in a different place they will adapt. That will affect their travel patterns and behaviour. It will slow down possibly on urban roads first, which becomes a tipping point, before I will worry about it on our network.

**Q288 Chair:** Capita Symonds put to us the concept of managed routes. Is this something you are familiar with and do you have any views on it?

**Graham Dalton:** They came to talk to me beforehand. There is an element which is not dissimilar to what I was describing first about doing some more management of some more primary routes. We have urban traffic, and managing traffic in the urban situation is quite a different task to managing on fast, long distance motorways and trunk roads. They are different sorts of roles.

I have described the development of technology. You had witnesses just before us saying that not all the Highways Agency network is fully covered yet. That is right; there are gaps. The gaps are not too bad. We are trying to look at the use of cheaper forms of technology and cheaper forms of picking up vehicle flow data that help. Commercial companies with trackers fitted to vehicles use those trackers as devices also saying where the traffic is flowing and there are commercial companies that use that information to give traffic data.

That level of investment, fitting that technology, which is quite expensive, has not happened on primary routes and those going into the urban areas nearly so much. Urban traffic management has been substantially about traffic lights and traffic control systems, which are quite different from tracking traffic flow. I think it will grow, and local authorities face the challenge of how they start investing in that technology and find cheap applications of technology to invest in. That is quite a challenge for them. It is quite a challenge for the supply market in how they find the products that use modern communications, that do not have to be hardwired in, do not involve putting up big steel gantries and use lightweight equipment fixed to lamp posts which just pick up traffic data. The time when that investment goes into those primary routes is the first consideration because it will be quite expensive to do.

**Chair:** Thank you very much for coming and answering our questions.

**Tuesday 14 June 2011**

Members present:

Mrs Louise Ellman (Chair)

Steve Baker  
Julie Hilling  
Mr John Leech

Paul Maynard  
Iain Stewart  
Julian Sturdy

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**Examination of Witnesses**

*Witnesses:* **Nick Lester**, Corporate Director of Services, London Councils, **Councillor Cllr West**, Chair of London Councils' Transport and Environmental Committee, and **Garrett Emmerson**, Chief Operating Officer for London Streets, Transport for London, gave evidence.

**Q289 Chair:** Good morning and welcome to the Transport Select Committee. Could you please identify yourselves with your name and the organisation you represent? This is to help our records.

**Garrett Emmerson:** Good morning. My name is Garrett Emmerson. I am the Chief Operating Officer for London Streets, which is the arm of Transport for London that deals with managing the road network.

**Nick Lester:** I am Nick Lester. I am the Corporate Director for Services at London Councils.

**Cllr West:** I am Councillor Catherine West, the Leader of Islington Council and the Chair of the Transport and Environment Committee at London Councils.

**Q290 Chair:** Thank you very much. What would you say are the main causes of congestion in London?

**Garrett Emmerson:** The first thing is how you define congestion. We all talk about congestion and we all think we know what it means, but it means different things to different people at different times. It can mean unreliable journeys in terms of the length of time that journeys will take, taking 20 minutes one day, 40 minutes the next and so on; it can mean that journeys are just too slow; or it can mean that in times of exceptional disruption, roadworks or special events and things like that, journeys are very different from the way they normally are.

In terms of the causes, very generally speaking in London, around three quarters of the delay to journeys across the city is caused by volume of traffic. In other words, compared to 2 am in the morning when there is no traffic on the roads, journeys taking longer at peak time and so on accounts for around three quarters of that delay. The remaining 25% is made up of events and incidents on the network, whether they are planned events in terms of managed roadworks or special events, particularly in central London, or unplanned events like accidents, breakdowns, traffic control failures or whatever it may be. That is the broad make-up of congestion across the city.

**Nick Lester:** Could I add to that the level of congestion, particularly in a city the size of London? One also has to take account of the fact there is a substantial amount of suppressed demand because congestion in its own right encourages people to make journeys by other modes to other places at other times, or not at all. Therefore, the early ideas were that if you just provide a bit more capacity then you will release congestion. Actually what it does is release

suppressed demand and brings the journey speeds back down again until you can release all of that suppressed demand, which in a city the size of London is probably impossible.

**Q291 Chair:** Councillor West, would you like to add anything to that?

**Cllr West:** Members do receive a lot of inquiries at the borough level, across the boroughs, on disruption not just for business, clearly, but also for people commuting, getting to school and hospital appointments and so on. It just generally slows down the city.

As London Councils, we have a road management concordat that encourages better co-operation between the utility companies and councils. The permit scheme introduced in January last year has gone some way to addressing the concerns, but clearly it is something we would like to see ramped up in trying to get to grips with the imbalance between the perception that people are not using the time when they rent the lanes and that companies could be much more efficient in the way that they use their time, perhaps working different hours or working more efficiently in particular spots rather than dragging out works for a longer period of time.

**Q292 Chair:** Do you think that problems caused by street works are a major cause of congestion?

**Cllr West:** Yes.

**Q293 Mr Leech:** Have you ever done any assessment of the cause of congestion by people breaking traffic regulation orders?

**Nick Lester:** There was some considerable work done on this quite a few years ago as local authorities were taking up traffic and parking enforcement from the police. That showed that a significant proportion of congestion was caused either by illegal parking or by vehicles travelling in breach of traffic regulations. Since the decriminalisation of parking enforcement and, more particularly, since the introduction of decriminalised traffic law enforcement in London, there has been a significant reduction in that, particularly on things like box junctions, which during the criminal regime were not enforced by the police. The local authorities and Transport for London between them now do something like eight times as much traffic law enforcement as all the police forces in the UK put together. That has meant that there is a

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clear recognition of the effectiveness of things like box junctions.

Also, the research that we did following the introduction of enforcement on bus lanes has shown that as the message is known that the chances of being caught driving in a bus lane go up, the number of contraventions has come down very quickly indeed. For the last four years, although more bus lanes are being enforced, the number of penalty charge notices issued has come down so that it is now at about a quarter of what it was originally. That is entirely to do with better prevention of problems rather than any other view of enforcement.

**Q294 Mr Leech:** Would it be fair to say that camera enforcement has actually reduced congestion?

**Nick Lester:** It has very clearly reduced congestion.

**Q295 Mr Leech:** But you have not done any assessment of what actual impact it has; you just know. It is anecdotal.

**Nick Lester:** We have the assessment on the number of PCNs and the number of contraventions quantified, but, for the reasons that Mr Emmerson gave, what impact you have on congestion depends on how you want to measure it. It has almost certainly improved reliability—that is the variation of journey speeds.

**Q296 Mr Leech:** You said you had done quite a bit of work in the past on how people breaking traffic laws had resulted in additional congestion, but you have not done that recently. Has no consideration been given to looking at how effective camera enforcement has been in terms of impacting congestion as a means of potentially increasing your level of camera enforcement?

**Nick Lester:** It is not so much increasing the level of enforcement. The value of it is for the highway authorities, when they are designing traffic management measures, to know what can effectively be introduced with some expectation that it will be either self-enforced or respected in some way. It is at the design level. It gives the highway engineers a much greater ability to plan and design what they want to achieve on particular stretches of the road.

**Garrett Emmerson:** It is one thing to be able to understand the effectiveness of enforcement and to see that if you do effective enforcement the number of offences comes down. Therefore, it is reasonable to suppose that has a positive effect on managing congestion. To be able to relate the cause to, or isolate the effect of that from, all the other things that are happening on the road network and then measure it against whatever measure you want to do is very difficult indeed. At any given time on any given road, volumes of traffic are changing either because of demand on the road network or because different things are going on in the network. It is only very recently that we have started to be able to measure reliability with any degree of consistency across the network and, even then, that is only on the major roads.

**Q297 Mr Leech:** Hypothetically, though, if you wanted to introduce a certain measure, a waiting

restriction or whatever, in order to try and tackle a specific pinch point of congestion, would you make a decision to have camera enforcement at that particular location as a means of ensuring compliance with the regulation and therefore ensuring that the measures that were put in place to tackle congestion were actually going to work, or would you simply add camera enforcement at a particular location simply to catch people breaking the law?

**Nick Lester:** It depends on what measure you are thinking of putting in, because camera enforcement has value and works for some but not for other types of traffic management measure.

**Q298 Chair:** What does it work for?

**Nick Lester:** It works for places where the rule is no stopping, for example, at busy junctions where no stopping is allowed at all because the camera can identify people stopping very easily. Where some forms of parking and waiting are allowed, for example, for loading or for blue badge holders, it is much less effective because you do not know necessarily whether the vehicle that has stopped there does or does not have a blue badge. For things like box junctions and the moving offences, camera enforcement is very effective because they are, by definition, moving offences. It is rather more that you look at what you want to design, and, once you have designed what you want to achieve, then you look at the enforcement techniques necessary to achieve it. Sometimes that will be cameras; sometimes it will not be cameras.

**Q299 Julian Sturdy:** We have heard a lot in the inquiry so far about suppressed demand—Mr Lester has touched on that already—and how if we build new roads or we have extra lanes that will only serve to release suppressed demand. How far do you think we can suppress demand?

**Nick Lester:** The road network tends to work in an element of balance once it is saturated, once you are at any level of suppression. There was some research done about 15 years ago by the late Dr Martin Mogridge that demonstrated how, at the margin, people choose the mode of transport they are going to make for regular journeys, either road or rail, depending on the door-to-door speeds of that journey rather than the link speed. If the level of suppression is sufficiently high, the only way you are going to improve road speeds, in his view, was to improve the railway network. In a way, in London, that is where we have got to, where you are looking in the morning peak, for example, at something over 80% of those working in central London coming in by rail. That is likely to continue.

**Q300 Chair:** Councillor West, what can be done about demand?

**Cllr West:** In London, obviously, we have tried very much to encourage people to go by foot because a lot of distances in London can be done on foot but people do not really know the way. Often they will go on the tube for two or three stops when they could have just walked for 10 minutes. We have tried very hard to address that through better signage and so on. We

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have also tried, with council schemes, to encourage the use of bicycles and so on. That is something we can do, but we also have to recognise that people with caring duties or with large families and so on will always need to use the car for occasional trips.

Clearly, the other thing is cost. Now that the cost of fuel is quite high and there are real economic forces against having a car due to the economy, we are seeing people almost being forced to use other modes of transport. We are trying to provide for that in the London context, together with Transport for London. London Councils and Transport for London do a lot of very good work together to promote non-car transport options. But, clearly, this is a national piece of work and there will be real issues around other sorts of public transport. In some instances you simply cannot use public transport for certain journeys. But in London we can; we are fortunate in that regard.

**Q301 Julian Sturdy:** Do you think that suppressed demand is always going to be there and used as an excuse not to develop some of our road networks further?

**Garrett Emmerson:** Suppressed demand will certainly always be there. I do not think it is necessarily an excuse or a reason not to develop networks. In developing an overall strategy, you have to look at the reasons why you might want to look at additional capacity, and understand and plan for the consequences of it. An area, in particular, like east London and the lack of river crossings there, is where the Mayor's Transport Strategy is actually proposing more capacity in terms of looking at options for further river crossings. That is being done through recognising the lack of capacity, the volume of demand that is there and the amount of growth that is predicted to come into that area over the next 20 or 30 years, which is the period of the London Plan.

Also, the issue that we have not talked about is the resilience of the road network and its ability to cope with unplanned incidents and so on. Everybody knows the Blackwall tunnel in London and has suffered at some point or other through travelling along it. It is an example of a piece of road network that just about works. It is at absolute capacity; there are something like 50,000 vehicles a day in each direction. It is at absolute capacity for most of the day. It just about works until something goes wrong even in a very small way, such as a broken-down vehicle or an over-height vehicle gets stopped. While we might be very quick at sorting the problem out, removing the broken-down vehicle and getting it out of the way and getting traffic flowing again, the knock-on effects go on for much longer. So there is a real lack of resilience in that network. As soon as something goes wrong, there aren't alternative routes that people can look at. That, to me, is a very valid reason for wanting to look at enhanced capacity. You would have to look at that in terms of the conjunction of the additional traffic flow it might induce. But, again, you also have to look at the fact that if there is going to be more demand if London is a growing city, there are going to be more people living here and there will be more economic development in future, we simply have to provide for it.

**Q302 Chair:** What is the impact of that greater economic activity, more people and changed demography going to be?

**Garrett Emmerson:** Globally?

**Chair:** In London.

**Garrett Emmerson:** We know that over the next 20 to 25 years, there are going to be something over one million more people potentially living in London and an extra 750,000 jobs. That is going to have a significant knock-on impact in terms of demand. We think that, potentially, there could be as much as 14% more congestion and delay arising from that demand over the period of the London Plan, over the period of the Mayor's Transport Strategy. Whether that materialises or not depends on how effective some of the policies are to encourage alternatives—whether people choose to make journeys in a different way from the way they make them now. We have had what, I think, is a very successful traffic record over the last dozen or so years in London, moving people away from car-based modes, in particular; there has been something like a 7% shift away. We have actually seen over the last decade gradually declining levels of traffic. If that were to continue, you would say there is not going to be a problem.

It is a question of whether those policies and their impact continue to have an effect that takes away from that potential growth. At the end of the day, even with the best will in the world, as transport planners we are only trying to predict for about 20 years what is likely to happen, how people's behaviours will change and how demand will change. You cannot necessarily predict how business may change, for instance. Twenty years ago we might not have seen the impact that electronic communication might have in changing the way we do business.

**Nick Lester:** One of the key issues is the overall capacity of the transport system, including walking and cycling, not just mode by mode.

**Garrett Emmerson:** That is a very fair point. We are looking to put something like 30% additional capacity on to the rail-based public transport network, with the addition of Crossrail and Thameslink and the tube upgrades over the next few years. That will be a very major capacity enhancement that is not on the road network.

**Q303 Iain Stewart:** I would like to pick up on a couple of comments that have been made about suppressed demand and the cost of motoring. In London we have had the Congestion Charge for pretty much a decade now. It has doubled in price since then. We currently have and we have had high oil and petrol prices. To what extent do you think the cost of motoring is suppressing demand or are other factors causing that?

**Garrett Emmerson:** I am not sure whether I am particularly well qualified to answer that question. Clearly, the cost of motoring has an impact on the amount of journeys we make, and we have seen, certainly over the short term, that changing oil price levels does impact the volumes of traffic at the margin. But, over the longer term, these things always seem to come trending back to a normal level of use, so people adjust their budgeting and the way they

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spend their disposable income to cater for the amount of travel they want to make.

**Cllr West:** Could I just talk about my own borough for a second here, instead of having my London Councils' hat on? Despite its cappuccino image, Islington has 48% of children living in poverty; we have a lot of very low income families. We actually have one of the lowest car ownership areas in the country. About a third of all people in Islington do not have a car and I do not think they will ever be able to afford one in the current climate because petrol is so expensive. Also, a lot of our homes do not have anywhere to park a car. If you want to park a car, it costs you up to £400 a year, depending on the sort of car that you have, and then there is the congestion charge and pay and display. There are a lot of disincentives to owning a car in London. Certainly, for a lot of people who live for brief periods in the inner-city areas like Islington, if you have a bicycle you can get in to work and back.

There are parts of the country where car ownership is low, either for economic or for practical reasons, i.e. there really is no need to have one if you can manage without it. That has an impact in certain areas, but I would not be surprised if there are other parts of the country where it is just not financially viable to have a car because you simply cannot afford it. There is probably a pattern that you could predict across the country in terms of income and being able to afford to get around.

That is why we also have to make the case for concessionary travel; it is incredibly important. It is all very well some people not being able to get around, but we have a responsibility to get people from A to B, and that is why concessionary travel such as the Freedom Pass, which obviously we manage as London Councils, has to be a national priority. I would hope that you can somehow feed that into your transport findings.

**Nick Lester:** The balance between the cost of motoring and other issues is an important one because we saw, with the introduction of the congestion charge, that it had an immediate impact on the level of demand for road space in central London, and that was entirely down to cost. But at the same time there is the point that Councillor West made about other practical issues. One of the areas in the country with the lowest level of household car ownership is Kensington and Chelsea, which is also one of the richest areas. Many of the residents of Kensington and Chelsea have no problems in affording a car, but they do not have one either because of pressure of space or because they feel they do not need to.

**Q304 Iain Stewart:** May I ask an unrelated question about the design of some of the streets, particularly in central London? I have noticed, particularly in the tourist areas, that there is a trend to narrow the width of roads, extend the width of pavements and move what was a dual lane into one single wide lane. Is that proving to be more effective at managing traffic?

**Garrett Emmerson:** It is a question of what you do with your road space, as it were. All highway authorities anywhere in the country face conflicting demands on their road space between the need to

focus on movement and get traffic around and the place functions that they meet; the A23 through Streatham is a major strategic road but it is also the community's local high street, so there is a conflict there.

In central London, what you have seen is that the creation of the benefits of introducing the congestion charge in terms of reducing traffic volumes and congestion is being taken in different ways now in terms of allowing more road space to be used for pedestrians and things like that. So on any street and with any highway authority, whether it is Transport for London or any of the boroughs or anywhere else in the country, councils and highways authorities are making decisions about how they best use that space and how much space to give over to vehicular traffic, pedestrians, cyclists, loading and unloading, and freight movements, which is a key function that has to go on in those streets. What you have seen in central London is a changing of that balance that has been facilitated or brought about by the reduction in traffic from the congestion charge.

**Nick Lester:** There has been a tendency in the past to undervalue and underplay the levels of pedestrian traffic in particular so that in some parts of central London you have pavements which were heavily congested, and that rebalancing that Mr Emmerson has talked about has now started to take into account pedestrian flows in a way that did not always happen in the past and does not always happen in the rest of the country.

**Q305 Paul Maynard:** I am glad we are now moving on to pedestrians because that is what I wanted to try and address. In our first session we heard about the Living Streets initiative that occurred on Kensington High Street. I wonder what the general views of the panellists are about it as a concept. Has it worked and what have the problems been, if any?

**Nick Lester:** It has been a great success in Kensington High Street. The fact that Kensington and Chelsea Council is looking to do a similar scheme on Exhibition Road and has looked in other parts of the borough to replicate that is an indication of the success that they see. It has to be looked at with care. There are issues, for example, that have been raised by Guide Dogs for the Blind about completely eliminating things like kerb lines that need to be designed with some care. I suspect it would not be necessarily a universal panacea for every location. It is going to be looking at the nature of the street and what the purposes of that street are. Kensington High Street is a shopping street and has to deal with traffic as well so that balance may make that appropriate. If it was just a major road further out, without those local facilities, I would be surprised whether that was the right way.

**Garrett Emmerson:** Kensington High Street is a very well-known example of the whole promotion of better streets and better urban realm. What the Mayor has certainly done with the Transport for London road network and the Mayor's Transport Strategy is to say there is an approach here that can apply to the whole road network but you are not necessarily going to apply it at the same level. His Better Streets initiative

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has defined five levels of intervention, from the most basic levels, where our priorities are purely around tidying up, decluttering the street and making it look smart and presentable, which might apply to an awful lot of the major strategic roads like the North Circular and so on where there is not necessarily the same place function, right up to those very high levels of urban realm standard—the Kensington High Streets of this world and so on. There is a role to play in terms of improving street environments across all the road network but it is not the same solution. You are not going to put the same Kensington High Street solution on dual two and three-lane urban roads.

**Q306 Paul Maynard:** I took a taxi from here to Euston last Thursday. I do not normally—I get the tube—but I had too many suitcases. I sat there for a good 40 minutes going up Charing Cross Road and Tottenham Court Road. It was a very lengthy journey and not a very satisfactory one. The main cause of the delay was not traffic movement congestion so much as the impact of pedestrians disobeying traffic signals, crossing at will or whatever. You had almost a de facto “living street” on Charing Cross Road without having introduced one, and that was a major cause of the congestion. Do you think the time has come to have a pedestrian Highway Code perhaps?

**Chair:** There’s a new one.

**Garrett Emmerson:** It is a very interesting point because we have done some research very recently on pedestrian crossing times and people’s propensity to cross, in relation to the work we are doing to develop pedestrian countdown. One of the figures—I am afraid I do not have the exact statistics in my head—is around the percentage of people who do not wait until the green man comes on but take a decision to cross after five or 15 seconds. Certainly, after 15 seconds the percentage of people who will have taken the decision to cross anyway, regardless of whether the lights have changed, is very high indeed.

Whether you would look at doing something more rigid as other countries do and insist that people wait on the kerb until the green man goes, I do not know. It could be a double-edged sword because that may mean you will need to allow more pedestrian crossing time when they do cross, because they are taking their own decisions to cross while the traffic flow lights are on, but presumably they are doing it having taken their own decisions about whether it is safe or not to cross. By preventing them, we might end up having to dedicate more pedestrian time, which would have a negative effect on the amount of time that traffic has to flow.

**Q307 Paul Maynard:** Can I finally ask Councillor West this with her Islington hat on again? I read huge chunks of the Fairness Commission that your council produced and found it very interesting. You have touched on some of the social challenges your borough faces. When we address the issue of congestion, we often think of it in terms of businesses and people getting to and from work. When you were putting the work of the commission together, did you look at all at how congestion impacts on the more

socially vulnerable and could you give us a few examples of how it might do that?

**Cllr West:** I am very pleased that within a week our Fairness Commission has been quoted in Parliament. I am very pleased about that and how collegial you are to mention it. Clearly, we did hear a lot of stories in the period of the commission. It was a listening exercise to have residents come and speak to a group of people, not just councillors but a group of people across the board. Sixteen per cent of people in Islington have a disability of some sort, and many people did make the case that they want their neighbourhoods to be more pedestrian-friendly or wheelchair-friendly. We have a large debate going on at the moment with Transport for London about scooters on buses. Can you get a 300 kg scooter on to a bus and what is the impact of that and so on? It is a really big issue in London. We are still fighting a campaign locally as well about step-free access in Finsbury Park and Highbury so that people can use the tube network, because that is a really big concern for local people. That is one far end of the spectrum around vulnerability.

But, clearly, with the small baby boom that we are having as well, people want to get about with buggies. In general, pedestrians, cyclists and non-car users are trying to express the fact that they want their neighbourhoods to be more user-friendly and have more of a neighbourhood feel to them. As you will all be aware, during the royal wedding celebrations lots of streets were made car-free and everybody was saying, “Imagine if it was like this all the time. Children would be playing in the streets again.” I think that there is real room there to look at some of those home zone schemes. They are very expensive, but you do have a real sense, like the old days, that you can go out and play in the streets and so on. I just wonder whether we could look at promoting that through some of our traffic management schemes so that we are allowing certain parts of neighbourhoods to be completely car-free. We could try and promote community cohesion through that by having spaces where people can go out, particularly inner city areas, of course, where it is dangerous to play outside because of the speed at which cars travel. You will also be aware that we are the first borough to have 20 mph zones in non-important roads—the neighbourhood roads. We have a big problem with enforcement because, clearly, it is not as high priority for the police as other inner-city problems. But we are looking at that and seeing whether that can be extended to other roads.

**Paul Maynard:** I am urging Blackpool to follow Islington’s lead.

**Q308 Steve Baker:** Bearing in mind that there is competition for scarce road space, and we have talked about the cost of owning and using a car, is there a greater contribution that could be made by motorcycles and scooters?

**Nick Lester:** The position of motorcycles and scooters is a difficult one because, on the one hand, they are more efficient in using road space than cars; on the other hand there is an accident problem. They are statistically less safe than other forms of transport and



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there is a continuing issue with emissions. If you were to produce a hierarchy in those terms, they would be an intermediate between people using cars, particularly if it is one person in a car on their own, on the one hand, and people walking and cycling and using public transport at the other extreme.

**Q309 Steve Baker:** Would you say that people are reluctant to promote motorcycles and scooters?

**Nick Lester:** There is a degree of reluctance as a result of that. At the same time there is a recognition that growth is taking place in motorcycle use and that has caused problems in some parts of London, particularly with on-street parking provision for motorbikes, which has led Westminster to introduce parking charges for exactly the same reasons as they had parking charges for cars. It is just to manage the demand.

**Cllr West:** It is nothing to do with money, of course.

**Nick Lester:** It is simply to manage the demand.

**Q310 Steve Baker:** Could I ask if anybody else wishes to make a contribution on this point?

**Cllr West:** I was just teasing and saying it was nothing to do with money; it is nothing to do with income generation.

**Q311 Julian Sturdy:** I am led to believe that TfL is working with the London boroughs to identify traffic signals that could be turned off to improve traffic flow. Do you think that is going to be an effective way of reducing congestion or are there potential problems with safety coming forward?

**Garrett Emmerson:** It certainly has a contribution to make. At Transport for London we have carried out a fairly high-level review of all the traffic signals across the city, which is some 6,000 sets of signals. We identified an initial list of about 145 where we did not think that the criteria that were originally used to decide whether you should put in signals in the first place were being met any longer, so there is a question as to whether there is still a need. Certainly, over time, traffic flows, land use flows and pedestrian flows change and so on. It is not realistic to think that once you put a set of traffic signals in, they are valid and justified for ever.

The majority of these obviously were on borough roads and some were on the Transport for London road network directly. We have said to the highway authorities that they might want to look at whether there is a continuing case to retain these signals, whether there is no longer a need for them or whether there are other forms of traffic control like replacing pelican crossings with zebra crossings, or whatever it had to be, that could be more effective. Boroughs have taken these suggestions up, with varying degrees of enthusiasm, I suppose, depending on their local circumstances. There are clearly safety issues and local community issues that need to be taken into account that would not effectively be factored into any sterile analytical assessment we would make. It very much has to be done in a local context.

We have seen them taken out, and there are some particularly good examples in Ealing that have robust “before and after” analysis of the traffic and

pedestrian impact subsequently that has demonstrated you can do this and you can deliver a benefit to motorists and motor vehicles in terms of reduced queuing, reduced delays and a benefit to pedestrians in terms of easier crossing times. If you do this and you get it right, you can deliver win wins for both pedestrians and motor vehicles, but it is something that we believe you have to approach with caution. That is the approach.

**Q312 Julian Sturdy:** It is a constant review, you think.

**Garrett Emmerson:** Yes, I think so. Probably the other thing is being more rigorous in our reviews of where we put new traffic signals in. I do not think the traffic signals profession would shout at me too much if I said that in the past there has been something of a culture that says, “The answer is traffic signals. What is the question?”, sort of thing. We need to be much more robust in deciding whether traffic signals are the right option in the first place where we have new development and new demands on the road network, or whether there are other better ways of managing traffic flows and pedestrian flows.

**Q313 Chair:** Is there a problem of multiple authorities managing the networks? Is that a big problem?

**Garrett Emmerson:** It presents its challenges at times, but we work together pretty well. There is a clear difference in terms of the management of the strategic road network—certainly the sections of the network that we manage for Transport for London directly—and then the intermediate level of the strategic road network that are borough-responsible roads for which we have a strategic oversight. But, certainly, the vast majority of roads are local community roads and it is surely only right that they are managed and run by local communities in boroughs.

**Q314 Chair:** Are there any differing views on that?

**Cllr West:** From the borough point of view, the point we would make is that, on the whole, we get on well with Transport for London. There are occasions when we have a differing view, for example, on traffic signals. Most people in our area want to keep traffic signals, because they walk a lot and they do not like the idea of traffic just going along. There is the traffic flow concept the Mayor talks about, which locally has been interpreted negatively, as meaning that traffic can just go and we have to wait longer to cross. They are talking about taking out signals. As a local authority, we have asked Transport for London not to take out signals in our area, but there are outer London boroughs where they have been keen to have those taken out because they are more concerned about traffic flow and speed of traffic. But, clearly, in the inner-city areas, it is generally the opposite: “Please slow it down. We want a neighbourhood which has fewer cars.”

The other point of management, of course, is around contracting procurement. We are trying to do quite a bit with Transport for London. I personally think the boroughs get better deals on their procurement around traffic, looking after roads and so on. Could I just

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make the case for boroughs' budgets around potholes, the state of roads and so on? I do not know whether that comes into the terms of reference of this inquiry.

**Q315 Chair:** I just want to focus for a moment on who is in charge of managing networks and what the issues are.

**Nick Lester:** If anything, the problem occurs not specifically about the road in its own right but about the road in its surroundings. Where you have, as Mr Emmerson mentioned earlier, somewhere like Streatham High Road where TfL is responsible for managing the road and yet Lambeth borough is responsible for all the neighbourhood—it is a local centre—that can be more problematic than in another town centre, say, Lewisham, where Lewisham borough is responsible for both the roads and the town centre itself. So getting that balance right also has to be taken into account. I do not think you can consider the road just on its own, whereas if you look at something which is more like a major urban road, the A3 Kingston Bypass or something like that, then you can look at the road on its own more easily. We generally work well together, but it is a question of working well in those areas.

**Q316 Julie Hilling:** I want to ask about traffic information and how effective that is across the conurbation. I am particularly thinking about the outer boroughs and whether more could be done to give real-time information to travellers.

**Garrett Emmerson:** Is this for traffic information for motorists effectively or vehicles of any description?

**Julie Hilling:** Yes.

**Garrett Emmerson:** It is an area on which we have done and are doing a lot of work, but I still think it is an area, as you suggest, where there is a lot more that we could do. The way we have attempted to characterise it is that there are three points at which you can try and get information to people who are making a journey on the road network. The first and the most effective is inevitably before they travel, before they get in their vehicle. Can you get information to them in their homes, through IT, or in their workplace or in shopping centres and so on that might influence when and where they travel depending on the conditions of the road network? That is one area where we look to do other work.

The second, of course, is when they get into their vehicle. There you are very much focused on working

closely with the radio networks and making sure you provide information that is as up to date as possible to be broadcast so that people can make decisions en route, if you like.

The third and the final area is right in the vicinity of an incident where you are looking at information on variable message signs, the big signs on the sides of the road and so on, which is the last point at which you can get to a motorist and say there is a problem ahead before they cease to become part of the solution in terms of being able to avoid it and then become part of the problem because they are stuck in the queue, which is where nobody wants to be.

We are trying to work on each of those levels. Depending on what we are talking about, we are working with stuff we are doing ourselves in terms of better information flow and development of websites, working with the internet community, application developers and satellite navigation companies and so on, making sure that we can get information out there to them in a form that they can use. One of the things we did last year through the London Datastore was to make virtually all our traffic data information publicly available for app designers and operators and so on. There are a number of apps out there that, for instance, give people live pictures from our CCTV camera feeds and information from our traffic flow systems and traffic analysis systems.

It is fair to say that there is probably a lot more that we think is yet to happen. We are working particularly closely with some of the satellite navigation providers to try and integrate our traffic information with the information that they obviously get from their users and providers that give them real-time information uploaded from individual vehicles.

One of the restrictions or limitations we often come across is things like Ordnance Survey licensing systems because most of our data is referenced through Ordnance Survey. Others can only use it if they have similar licences and so on. There is probably something in that area that needs looking at in the longer term to see whether the way we license Ordnance Survey and the way it relates to information is still relevant to where we want to go in the future.

**Chair:** Thank you. We have to close this session and move on. Thank you very much, all of you, for coming and answering our questions.

### Examination of Witnesses

*Witnesses:* **Mike Penning MP**, Parliamentary Under-Secretary of State, Department for Transport, and **Norman Baker MP**, Parliamentary Under-Secretary of State, Department for Transport, gave evidence.

**Q317 Chair:** Good morning, Ministers, and welcome to both of you here at the Transport Select Committee. I see we have the coalition united here today. I am pleased to see both of you.

**Norman Baker:** We do. I have even got the coalition shirt and tie on.

**Q318 Chair:** Do either of you want to make any initial comments before we go to questions?

**Mike Penning:** I do not. I do not know if you do.

**Norman Baker:** Not really.

**Q319 Chair:** How efficient do you consider the road network to be?

**Mike Penning:** The national road network is enormously efficient considering the restraints and the pressures it is under. We are a nation that loves its car. We are very reliant on road haulage and the network itself does remarkably well. However, Madam Chair, we are very aware of certain things which cause us real problems. That is why we have the programme going on now with the other agencies as to how we handle major incidents better, for instance. We passionately believe that while we have to be compassionate and the police have to do their job when there is a fatality or a serious injury, the amount of time that a road is closed, particularly a motorway, after an incident is unacceptable to the infrastructure and the economy of the country. That is one of the areas where we think efficiencies need to be addressed.

Of course, events take us over. The main reasons why we have problems with the infrastructure are when we are fixing it and expanding it. At the same time other incidents are out of our hands, which certainly means accidents, and how we handle those accidents is crucial.

**Norman Baker:** In terms of the local network, obviously we are very keen to tackle congestion where we can because congestion brings unpredictability of journey time, which is probably more serious than the actual journey time itself. There is the uncertainty of when you will arrive. Also, there are the problems that arise with street works, which you may want to come on to at some point, which we are keen to minimise as far as we possibly can. Obviously these are matters ultimately for local authorities and their own local roads rather than for the Government to direct, but you will be aware of the Local Sustainable Transport Fund, one of the objectives of which is to help create growth and the other is to cut carbon. Part of that is modal shift. Bearing in mind that half the car journeys are five miles or less and two thirds of all trips are five miles or less, it seems to me we can tackle those in a sustainable way. We can both help to free up the roads for those who need to use them and at the same time help to reduce carbon by encouraging modal shift to cycling, walking or public transport.

**Q320 Chair:** Mr Penning, there has been a review of the Highways Agency. Can you tell us anything about that?

**Mike Penning:** Yes. The review continues and we will have a report fairly shortly. The Highways Agency is a relatively new agency and was created to be an asset to the nation and to our road networks. We have to make sure that, in the 21st century, it is doing what it was designed to do or whether it can be enhanced, whether it can be better managed and whether or not we are getting a bang for our buck from the Highways Agency in the way that we expected to do when it was set up.

**Q321 Chair:** Is there any scope for the Highways Agency to manage any other roads—non-Highways Agency roads?

**Mike Penning:** They do, interestingly enough. On the edge of my own constituency where the M10 was demotorised and is now the A414, which links into the existing A414, the contract for maintaining and cleaning that is a Highways Agency measure. There are examples around the country where we do, but we do not see there is a role to increase the empire, if you wish, going forward. That was an anomaly because of a particular existing contract with ConnectPlus, I believe. It was a shock to the Highways Agency when they found out, when I told them it was their responsibility when I noticed the litter was not being cleaned off the side of the highway.

**Q322 Chair:** Mr Baker, do you agree with removing the M4 bus lane?

**Norman Baker:** Do I agree with it? It is not something I give a great deal of consideration to because it comes under Mike's portfolio. Bus lanes can be very useful but they can also be unnecessary. It is a matter for judgment in each case as to whether a particular bus lane performs a useful function or not. A bus lane is particularly useful if it is in a concentrated urban area and where there are severe delays to frequent buses. Providing a bus lane that enables a frequent bus service to get from A to B more quickly with more predictability—coming back to that point—is a very useful function. Certainly, I am very keen to encourage bus lanes, where they are appropriate, up and down the country. Mike knows more about the M4 bus lane than I do, but that was a situation where the bus lane was not largely used and was used particularly for coaches, I think. Is that right?

**Mike Penning:** Yes. The M4 bus lane, which is suspended at the moment but due to our legal commitments with the Olympic bid will be reinstated purely for the Olympic and Paralympics and then removed, just was not fit for purpose. It was not doing the job it was designed to do and was creating a more congested area before the elevated section of the M4, which is why we made the decision, after consultation, to remove it. That has been very successful and there will be a lot of concern when we

put it back for that short period of time before we permanently remove it.

**Q323 Mr Leech:** Mr Penning, what assessment has been done? How is the success or otherwise of removing the bus lane being judged? Will there be a full assessment of the number of extra cars on the road or the journey times or a mixture of the two? Will any assessment be made of the impact on the coach and bus journeys that are now made into the centre of London?

**Mike Penning:** Yes, there is a continuing assessment made. One of the biggest problems on that part of the M4 network is congestion, which is causing some major pollution and environmental issues along there. Before we took it out, the interesting thing is that even though it was called a bus lane, there were very few buses using it. It was predominantly coaches, and even more taxis than there were buses. The initial finding is that the journey time, thus congestion on that piece of motorway, has been reduced, but we will continue to assess that as we go forward.

It is going to be very interesting of course, as we reinstate it, to see what effect it has, because it is very much a commuter part of the country coming into London. It will be very interesting to see how long it takes people to get used to it. It was open to all traffic for some time but because we have not actually ripped up the coloured markings on it and it still looks like a bus lane people were loth to go into it. They have got used to that now. There has been enough publicity to say that you can use it perfectly legally, but we will have to be very careful after we reinstate it for the Olympics and the Paralympics.

**Q324 Mr Leech:** What has the reaction of bus and coach operators been?

**Mike Penning:** I will write to the Committee on the exact figures. I did get inundated with colleagues writing to me about taxi drivers who work in their constituency who said that this was an absolute disgrace. I must indicate that taxis pay the same road tax as a personal ordinary car. It was not designed as a bus lane. I understand the courts over the years have moved to allow taxis into bus lanes, but at the end of the day I have to look at congestion, which is the biggest problem, and the problems with time, as Norman has said. This is not just journey times but how you plan a journey and the environmental aspects as well, because the emissions in the atmosphere when traffic is bad are very bad.

**Q325 Mr Leech:** It is accepted that when you increase the amount of road space available, for a certain amount of time it will clearly improve journey times. But there is also some evidence that when road space has been expanded, such as extra lanes on motorways, after a period of time it just creates more traffic. If, as the change moves on in time, it proves that there are just more cars going on to the M4 rather than improving journey times, is the Government open to looking again at whether or not it would scrap the lane permanently following the Olympics?

**Mike Penning:** The Government and I as a Minister, and I am sure my colleague will also say this, are

always open-minded. If you do something, you must keep an open mind as to how you do it. Managing the assets that we have, sweating those assets in this difficult financial time, is probably the most important thing. I know we are going to come on to managed motorways. It will not be a managed motorway but it will be formed in that sort of way. The interesting thing is that if we can get the flow of traffic coming through there at a speed that is managed as we go on to the elevated sections, as three lanes go to two, that will improve it for everybody, including the people living in that part of the world, who are suffering environmentally at the moment.

**Q326 Iain Stewart:** One of the areas I am particularly interested in is intelligent traffic management and how we can harness new technology to move vehicles efficiently around both the strategic road network and in a very local context. We have heard from several witnesses that there are schemes being developed with sat-nav companies to provide real-time information about what the best advice is, i.e. not travel, take an alternative route or stay still, depending on the situation. Who is best to drive forward that programme, that research? Is it the DfT, at local authority level or the Highways Agency? Who is better placed?

**Mike Penning:** I will let Norman speak on the local authority side, but certainly on the national road network, working with partners in the industry, it is obviously us at the Department for Transport. I have some concerns about individual personalised data information and I am not talking in this particular case just about sat-navs. The interesting thing about the sat-nav is that it is designed to help and aid the driver. Some are fixed installations and some are not. For instance, I saw a proposal the other day as to whether or not we would start to feed information from the Highways Agency into PDAs or BlackBerrys and things like that. That is fine as long as there is more than one person in the car, but I do not want distraction brought in with technology. Predominantly, for our drivers, the real issue to do with accidents is speed and distraction, so the last thing in the world I want to do is to bring more information inside the car that is likely in any way to distract the driver. That is something we have to be very careful about.

In relation to technology on the motorway network, the managed motorway system is where we are. I was very sceptical in opposition, as an ex-fireman, about using hard shoulders and things like that. The evidence is there, and the trials that were done on the M42, with the help of the Transport Research Laboratories, have proven the case and now we are rolling it out around the country. I was very proud to be on the M6 when we did another version the other day. It is a shame, to be slightly controversial about my predecessors, that they did not look at that more carefully before they started issuing contracts—for instance, with the M25 widening—because we have not really sweated the assets there that we could have done. The National Audit Office report into how much extra that has cost because we did not do that properly is there for everybody to see.

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**Norman Baker:** On the local side, it is worth pointing out that the Department for Transport has, for 14 years, been pursuing the urban traffic management control mechanism to encourage the use of intelligent traffic control. That has been quite useful and has been rolled out in over 100 cities in the UK, to varying degrees—at the simplest level to join up traffic lights to make sure that you get green waves and the traffic is kept flowing. What I have learned from TfL in London is that if you fiddle around with the traffic lights by even five seconds, you can cause major problems. This is quite sophisticated in terms of its application. But it is also real-time information at bus stops and about whether car parks are full. Air pollution monitoring and so on can be plugged into that. The ability of technology to change dramatically how we approach road transport generally, but also public transport, is a very exciting topic. It has the potential to make better use of the network by getting cars and vehicles flowing more freely. It has the potential to give people confidence in public transport systems in terms of when something will turn up. It opens up the opportunity to have diversionary routes and to indicate to people where they might be best placed to get from A to B and which road to take. These are very exciting developments and I am very keen that we harness that technology to make sure we get the best deal for the transport user in this country.

**Q327 Iain Stewart:** If I can pick up on the local aspect, in a previous evidence session Surrey was the case before us. Are you satisfied that neighbouring authorities will properly co-operate with each other so that we do not have a situation where you just move a traffic problem into an adjacent authority? If one gets it right and is very efficient, the traffic jam is just rolled on to the next place.

**Norman Baker:** They have an interest in getting it right, do they not, because if you have free flowing traffic to the edge of your border and then everybody stops and comes to a grinding halt, you have not helped the people that have got to the border quickly. Of course it makes sense for local authorities to work together, as indeed it makes sense for the Highways Agency to work with local authorities and highway authorities to make sure that the interaction between the Highways Agency network and the local network works well, and that does happen.

**Q328 Iain Stewart:** You are satisfied that the current balance of responsibilities is correct.

**Norman Baker:** In what sense—the balance of responsibilities?

**Q329 Iain Stewart:** The aspects of road management that are controlled by local authorities and those that are done strategically through the Highways Agency.

**Norman Baker:** I personally do not have a concern from the local angle.

**Mike Penning:** That is an area where we can work more closely with the local authorities, particularly when we have closures of major networks, in other words motorways. At the moment, one of the things I am looking at is that if a section, just one junction on a motorway, is closed, sometimes we have excessive

diversions, which have a really adverse effect on local communities. We need to look very carefully as to how we do that. Working with local authorities is the key and that works reasonably well. It could be better and that is something we are looking at now.

**Q330 Chair:** We were told in a previous session about a project called ITS Toolkit, which enabled an exchange of information on technology for those purposes. We were told that it is no longer being funded. Are you aware of that and could you tell us what is happening? I do not know which of you would like to answer.

**Mike Penning:** It is more your area, Norman, than mine. It is not being funded at the present time and we have to be realistic about what funding is around and what is not around. There has been some degree of success on some of it and it needs to be reassessed as to where that funding should come from as we go forward, but at the moment there isn't funding for it.

**Q331 Chair:** At the moment has that stopped or has it just been put on hold?

**Mike Penning:** I would have to write to the Committee. Some of it has carried on without the funding, interestingly enough, which is always an exciting thing if it happens. I am looking for the evidence base and if we can see the evidence base, we can look forward. At the moment we do not have the funding for it.

**Q332 Steve Baker:** Could I just return to the M4 bus lane, to touch on motorcycle safety? As an occasional commuter on the M4 I was always relieved to get on to the bus lane because it ended the stress and the risk of filtering. Has an opportunity been taken to look at the contribution of that bus lane to motorcycle safety?

**Mike Penning:** As a biker myself, I have taken a personal interest in this as the years have gone on because motorcycles were excluded from bus lanes in many of our cities as well. I know that has been looked at, not particularly in Norman's portfolio but the Mayor has looked at that. The key is that it must have been wonderful for motorcyclists to get in the M4 bus lane and cruise unhindered just on the speed limit, but was the best use of that piece of tarmac just being used for that? We decided that it was not. But it is something we will look at. Interestingly enough, that motorway, as the Committee I am sure is aware, is the safest road in our country, for motorcyclists in particular. Sadly, at the moment, and it has been going for many years, deaths and serious injuries on roads have been going down in all areas except in motorcycling, which is why we are looking at the test very carefully at the moment.

**Q333 Steve Baker:** I am sorry to press you on this. Any reasonable motorcyclist would appreciate that having an entire lane available to them was an unreasonable request. But it just struck me that this was almost a controlled situation where losing the bus lane has taken a stretch from giving a motorcyclist that period of space to be safe and it inevitably will have pushed motorcyclists back to filtering on the motorway, which is often done horribly irresponsibly.

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I certainly saw some accidents on that stretch. I wanted to press you on whether you would consider studying the change in the accident rate on that stretch just to see what the effect of using bus lanes is on motorcyclists.

**Mike Penning:** Absolutely. We will do that, but we have to stress that motorcyclists have to be as responsible as other road users. Was the way the lane was used the best use of that piece of national asset? I had to make that decision. But we will keep it monitored.

**Q334 Julian Sturdy:** I want to follow on from Mr Stewart's earlier questions. Do you think the DfT should help local authorities more in developing standards to tackle congestion or is it a case that local knowledge is best?

**Norman Baker:** Local knowledge certainly is best in terms of the specific solution for each individual congestion point or each individual high street. Obviously a local council knows its high street better than the Department for Transport, which has probably never even seen the high street. We can make councils aware of best practice. Some of that was encompassed in the White Paper "Creating Growth, Cutting Carbon", published earlier this year. We liaise with local authorities, but, increasingly, the Local Government Association has a role to play in this sort of area, which it has not really done so far. The LGA has tended to see itself as an organisation that lobbies central Government. Local councils have been asking for decades for Government to get off their back and let them get on with it, and in this new era of localism, it is finally happening now. We are letting local councils get on with it in their area and it is absolutely right to do that. But the LGA has a function, which it has not discharged terribly well so far, in co-ordinating best practice and rolling it out.

We are doing some of that of course with local authorities. For example, I have signed off a £6 million project to identify best practice in local authorities in dealing with roadworks. That will help, I think, and we will make councils aware of the outcome of that to make sure they get best value for the work they do in terms of dealing with those sorts of conditions. But, increasingly, it is the councils themselves and the LGA and the local government family that should own this, rather than central Government instructing them about what they should be doing.

**Q335 Julie Hilling:** I want to carry on talking about real-time information and that area. Is there more that could be done to make sure that information is up to date and real? I went on a visit to a taxi firm yesterday and got this absolutely amazing traffic information that they are using for their fleet. Could we have more interaction between freight, taxis and other information that local authorities may have?

**Mike Penning:** There are now myriad services out there that the market has driven forward as to what information can be given to the industry. If you look at freight, because that is my responsibility as well, not only do they know exactly where their lorries are, but their delivery times are timed within literally a

five-minute slot—sometimes even less than that. So they have to know and they have that technology. That is very difficult to put directly into a car, for instance, especially when you only have a single driver within a car.

One point at which everybody gets very frustrated, and I do, is when we are giving information out on matrix signs. Are we really giving up to date and user-friendly information there and then? I went on to the M1 the other night at junction 1 and came off at junction 8, and they were telling me at junction 2 about something that was happening at junction 29. That may well be of use to some people, but they are interested in what is happening where they are. I cannot believe there was nothing at all between junctions 1 and 29 which was of interest to the motorist going up the motorway.

The other thing the Minister and I have spoken about is whether or not we can encourage people off the motorways and on to other modes of transport with some of those matrix signs. For instance, using the M1 again, if you are coming down the M1 and you are anywhere near Luton Airport Parkway station, literally within two or three minutes of coming off the M1 you could have parked and got a train and you could be in London. That is the sort of thing we are looking at to see if we can give better information. It is a complete break with the traditional information we have been giving out through matrix signs and things like that, and there will be some opposition to it, but we need to just look at whether we can get better information on lots of different things for motorists as they drive.

**Norman Baker:** It is not just the technology; it is also the intelligent use of technology, because it can be just blanket technology and badly used. Mike has given the example of the signing on the M1. The information you want is at that particular point for the journey you are making, and that is the same whether it is on the road or on the railways. On the railways, for example, people want information as to why the train has stopped and when it will start again. They want information about how soon they will reach their destination. They do not want to be told a lot of verbiage that is irrelevant to the situation they are in. It is important that the human aspect of the use of technology is also plugged in properly to ensure we do not simply let this run riot without control or on autopilot.

Coming back to your point about joined-up information, I do not know if the Committee has seen it, but the Directory of Urban Traffic Management and Control booklet of case studies is quite interesting, and you might want to have a look at it. It demonstrates what has happened across the country and how different towns and cities have approached the co-ordination of information in a different way. There is a little chart that shows which towns and cities have used which particular techniques. It is quite interesting to see how some have combined variable messaging and traffic control, some have real-time information at bus stops and so on, and how it is all plugged in. It is quite useful to see how people use that information in a productive way.

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**Mike Penning:** Some of the simplest forms of technology have given the most tangible benefits. For instance, the matrix sign saying “9 miles to X, 11 minutes” is such a simple piece of information but it is the most useful piece of information, especially on the motorways. That has been available for years and years and years, and it is there. It can be frustrating when you look up and you think nine miles is half an hour and then it will say “Congestion”. But knowing it is clear and that is how long it should take you helps you plan your personal routes much better.

**Norman Baker:** I am very keen, as Mike is, to try and think cross-modal because people are not just car drivers or just train passengers. They will make their choice according to what journey they want to make. Sometimes they will want to switch. Let us say you are on a busy, single carriageway trunk road that is normally congested, like the A27 in my constituency, for example. If you have a sign there saying the railway journey along this parallel corridor is half the journey time of the road journey, people might think about changing to the train. If you do that, it may obviate the need for expensive and perhaps environmentally damaging roadworks. These cross-modal initiatives are quite important.

**Q336 Chair:** But what are the Government doing to enable that information to be used more effectively? Mr Baker, you said before it was not just having the technology. It was using it in a way that was public-friendly. Are the Government doing enough to make that happen?

**Norman Baker:** That is down to human nature, to be honest, and common sense in many cases, whether it is the Highways Agency that Mike looks after or whether it is local authorities. It is a question of common sense and saying, “What does a traveller actually need to know?”, and then making sure it is put out there. You cannot legislate for that. It is about people thinking ahead and applying their logic to the situation in which they find themselves.

**Q337 Chair:** But what about examples of best practice? Are the Government doing anything to publicise those?

**Norman Baker:** I have just referred to the case studies booklet, for example, which does in fact put together best practice. We are always keen to use best practice, but I come back to the point I made to Mr Sturdy a moment ago, that as far as local roads are concerned the LGA has a bigger role to play than it has played so far.

**Q338 Mr Leech:** Mr Baker, on a couple of occasions you have touched on the issue of roadworks, which is obviously something that exercises drivers, pedestrians and other road users all the time. Last week we visited TfL and there was an acceptance that more could be done to better co-ordinate roadworks between the different utilities, but no one is able to come up with the organisation that should be

responsible for that co-ordination of roadworks. Does the Department have a view on how we could better co-ordinate roadworks so that different utility companies are digging up the same road at the same time?

**Norman Baker:** The situation in London is slightly different from the rest of the country of course in this respect, as it is in all other respects. But I think we have made progress over the years. Successive companies have made progress. The 1991 New Roads and Street Works Act was the initial step to try to make sure that local authorities are notified as to what was happening. That was useful in improving behaviour. We want to go further than that and ensure that we minimise the amount of disruption on our roads because it is just inconvenient for everybody and it can be costly for the wider business community and, indeed, for local authorities who are carrying out their own works on the roads.

I am very keen to push the permit scheme arrangement, which has been successful. The initial findings from Kent, which has adopted it, are that complaints and inquiries about roadworks have decreased 26%. That was the initial finding; 1,389 days in the last year have been saved on roadworks. The London figure is a 32% reduction in the number of hours of roadworks London-wide since the introduction of the permit schemes in about half of London. You may know that, recently, seven further London boroughs have signed up to permit schemes in the last few weeks. That is a way of driving performance, co-ordinating roadworks better and making sure that there is ownership at local authority level for those particular works. There are other steps we want to take as well.

**Q339 Mr Leech:** There is little doubt that the permit scheme has made a big impact in terms of the time roadworks take and co-ordination in doing roadworks at the most appropriate period of time. But National Grid, whom we visited, and TfL both accepted that if National Grid are doing some roadworks on a particular road at a particular time and have a particular permit, there is no co-ordination between National Grid and other utilities perhaps to do other utilities’ work on that same road at the same time. It came across as though there was no one to do that co-ordination between the different utilities. Is that something that local authorities should take on or NJUG should take on, or the individual utilities themselves?

**Norman Baker:** I do not think it is true to say that works are not co-ordinated. I can think of some works in London that have been co-ordinated, and co-ordinated quite well.

**Q340 Mr Leech:** It is still very rare, though, isn’t it?

**Norman Baker:** It is not as common as it should be, but the point is that the system is there to enable local authorities to co-ordinate if they choose to do so. Some have done so better than others. The industry itself has produced a best practice guide which helps

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to identify how those sorts of aspects can be handled. There is a score card arrangement now that can be rolled out to measure how successfully roadworks have been undertaken, which encompasses also the co-ordination of roadworks. I think we are getting there slowly in terms of making sure we make progress on this, but you are quite right to say that co-ordination is a key point and you are quite right to say there is nothing more infuriating for road users than having the road dug up, reinstated, inspected, repaired to a satisfactory level, only to be dug up again shortly afterwards. But the number of cases where that happens now is diminishing as a consequence of the steps taken. The permit scheme, in particular, gives local authorities a handle to try to co-ordinate this by determining the timing themselves in a way that was not as easy before under the 1991 Act.

**Q341 Mr Leech:** One of the problems appears to be that if a utility might have to do some work in a particular area that another utility is working on, it might not be on their priority list of work so they do not get involved, even though they might know about a particular work happening. Is there any scope for trying to pass on some additional cost to utilities to encourage them to do the work at that time? It does not appear, from what we have been told, that utilities are really getting on board and doing the work at the time when another utility is prepared to do it.

**Norman Baker:** It is open to a highway authority, when it is notified that a particular utility wants to do some work, to contact other utilities who have infrastructure in that particular piece of road, to notify them and to try to co-ordinate the timing of that work. That has happened on occasion and it needs to happen more than it has happened. As part of the DfT business plan, we are, as you know, committed to a lane rental pilot scheme. That, of course, would give an incentive directly for utilities to co-ordinate their works because they would have to share the cost of the lane rental rather than having to have the scarce bit of road dug up again and then bearing the whole cost of that particular operation. So there is a financial incentive. We will be bringing forward plans for a pilot in due course for lane rental to try to deal with that.

**Q342 Chair:** We were told by London Councils that regulations have not yet been put into force for the 1991 Act which would give highways authorities the power to charge the utilities for repeated digging up of the roads. Is that correct?

**Norman Baker:** I am not quite sure which particular regulations or powers under the 1991 Act you are referring to. I will check that point and drop the Committee a line. Clearly, you will be aware that with any piece of legislation Governments pass, a huge number of powers are often made available that are then subsequently not enacted. We would be keen to try to make sure that the powers we do enact do not have a disproportionate impact on business, and sometimes a contradictory effect in terms of what they are trying to achieve. The fact that a power may exist and has not been enacted does not necessarily mean a

failure of this Government, the previous Government or any Government. It may simply be that in the light of changing circumstances, is it appropriate to take that forward? But I will ask officials to come back to me on that specific point and I will write to the Committee.

**Q343 Chair:** It would be helpful if you could because we were told that. Have you given any thought to having an Independent Roadworks Commissioner, as they have in Scotland, to look at the way roadworks are done?

**Norman Baker:** I have not seen any evidence that that is necessary at this particular point. What I have seen is increasing co-ordination and willingness to work together between local authorities, utilities and others to try to minimise roadworks. There is a shared common agenda. I am encouraged by the greater common working that is now taking place. Certainly, as far as both the local authorities and the utilities are concerned, it is not something they are pushing me to take forward. There are other issues of concern, for example, the safety of people working on the highway, which appear to be more important to them at this particular point.

**Q344 Chair:** The Transport Secretary and the Mayor of London have announced a £1 million fund for a project to research and develop new technology to cut down time on roadworks. Can you tell us anything about how that is developing?

**Norman Baker:** I know that the Secretary of State and the Mayor have been working together to try to see what can be done, and, of course, the Mayor of London has a particular interest in these matters. Clearly, we want to make sure we get best value for public money, and if the Mayor wants to come forward with a scheme that then enables us to get a wider benefit that is something of course in which the Department for Transport are interested.

**Q345 Julie Hilling:** Following on from that, I have been made aware of a means of plating roads while roadworks are taking place further up but the trench still cannot be refilled, or so that trenches can be covered over weekend periods or at different periods. The National Grid are actually doing some work on this. Are you aware of those trials taking place and what are you prepared to do to promote them?

**Norman Baker:** Department officials have had discussions with utilities and others about how they undertake roadworks, not simply about when and how long they last. One of the ways we can minimise disruption for the motorist is sometimes by using techniques that do not require trenches to be dug up and left for long periods of time. That can be filling in, or using tunnels to access a particular stretch of road which may have to be repaired. It may be the kind of material you use for the pipes to ensure that we do not have to dig up the road again for a very long time. There are certainly techniques you can use which minimise the amount of road dug up at any particular point and we are keen to take that forward as far as we can.



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**Q346 Julie Hilling:** This is specifically about coverings that are safe and could cover the trench until you have to dig.

**Norman Baker:** Obviously, the first priority in any roadworks is to make sure that the place is safe. It has to be safe for road users who might want to use it, safe for pedestrians, and safe for those working on the road. That has to be the first priority. But, in so far as we have achieved that priority, clearly if you can at the same time minimise the amount of time the road is taken out of use for road users, it is clearly beneficial. We are certainly interested in anything we can do to use innovative techniques to achieve that.

**Q347 Julie Hilling:** The other question following from that is around new development and where utility services are put in. We have been told that in Milton Keynes, for instance, all the utilities are in the verges rather than in the carriageway. Are new developments told that they should not be putting the utilities in the carriageway?

**Mike Penning:** I come from a family of builders so that does help. We are where we are with the country's infrastructure, but new infrastructure is designed completely differently. If you get a burst water main you may need to dig up, but technology is moving even on that—they can put sleeves around and they can go through. Very often, you will see new gas mains going in now where they are sleeving up the inside of the existing main so it has not been dug up at all. But with new builds, you have only got to look at a new house—the way it is designed and the way the ducting works and everything—to see a completely different way of doing things now from how we did them in the past. The problem with roadworks is that they tend to be with infrastructure that is just wearing out.

**Q348 Julie Hilling:** Indeed, but that infrastructure is going to wear out in the future. Is it still being put in in the middle of carriageways or is it being put in verges, in pathways and other places?

**Mike Penning:** If you look at most new towns—I used to be a fireman in Basildon—most new towns have it in the pavements rather than in the road, where they can. There are always going to be issues, to do with sewers, for instance, where you just cannot do that.

**Q349 Julie Hilling:** Are there regulations in place that are saying that they should be—

**Mike Penning:** We would have to write to building regs. That is not our Department, but we can write to the Committee about that. That is building regs and comes from a different Department.

**Q350 Iain Stewart:** Turning to road user behaviour, to what extent do you believe that poor road user behaviour contributes to congestion, particularly in the motorway network?

*(Horn was sounded loudly outside)*

**Mike Penning:** I am also the Shipping Minister. Perhaps they are trying to tell me something.

Poor road user behaviour and inappropriate behaviour creates accidents, and accidents massively affect the road infrastructure. We have already said earlier on in the evidence today how we are trying to deal with it once we have accidents, and of course we have the safest roads in the world, of which we are very proud, but we still have too many people killed and seriously injured on our roads. How we teach people to drive better rather than teaching them to pass a test is something that you will hear me go on and on about all the time because that is one of the biggest challenges we have. Whether it is with young people or older people, they should drive appropriately. Have they been educated? Do they have the skills to do that and does the test produce that for them? My personal view is that at the moment the test is better than it was, but we are still teaching people to pass a test, not giving them skills so that they do not drive inappropriately on our roads.

**Q351 Iain Stewart:** Accidents are obviously a huge factor but I am also thinking in terms of poor lane discipline on motorways creating bottlenecks. I am aware there are certain schemes—Pass Plus is one and the Institute of Advanced Motorists has various schemes—to educate drivers on road safety, to avoid congestion, to save them money by driving efficiently. How do you see the Department taking forward some of those schemes?

**Mike Penning:** There are two ways forward. Certainly, post-test training is something that we are very keen on. I do not think Pass Plus has been hugely successful. It was brought in for all the right reasons, mostly to train people better so that, in theory, they have a lower premium on their insurance. The work that the Institute of Advanced Motorists does is exemplary. There are other schemes starting to be rolled out; the AA are looking at schemes. The market will start to drive schemes forward, not least because of the cost of insurance.

Enforcement is crucial. The Road Traffic Act is there for a reason. It is not just to be a pain on people's pockets and points on their licences. It is there for a reason. Technology is helping us as we go forward, particularly on the managed motorways. Before, people would slow down for a speed camera and then disappear off at a rate of knots down the road, but an average speed camera will pick you up if you do that. That is dramatically changing as we roll out the managed motorways and these sorts of technologies. Once we have caught you, it is not just a case of throwing points at you and a penalty. It is educating you with speed awareness courses and other courses that we are now going to roll out, because all the evidence shows that they actually work.

**Norman Baker:** I would also give a plug to the Energy Saving Trust, who do very good work on eco-driving, which not only reduces carbon emissions and business costs because the savings for people who drive can be 10% or 15%, but also encourages better driving in terms of the issues you referred to like lane discipline and so on. Certainly, I find it infuriating to be on a motorway and find everybody in the outside lane and nobody in the inside lane. I also find it infuriating when you go to a junction and someone

keeps it a secret until the traffic lights change that they want to turn right and they cause chaos at that particular junction. Better driving all round can help congestion as well as help the environment.

**Mike Penning:** I touched on driving technique a moment ago but it is really very important. We were talking earlier on about how we need to sweat the assets, particularly on our motorways. The interesting thing is almost a side-effect. I am sure this was not intended; we did not have the evidence. As managed motorways have come in, we have managed you down to 50 mph and we use the hard shoulder, where have the accident rates gone? They have gone down. All motorways are still the safest roads to drive on, interestingly enough. We need to train young drivers to drive on motorways, perhaps before they pass their test, so that they can use those skills once they have passed their test, but the accident rates on managed motorways have dramatically dropped. Because they are on a managed motorway, it instils the sort of skills that they have to have. You can almost see the difference in the driver the minute they come off the managed motorway section or as they enter the managed motorway section, compared to how they drive past my constituency on the M1 at the moment because the cameras are not yet switched on.

**Q352 Steve Baker:** Mr Penning, I am reassured to hear your approach to skills, but would you agree with me that people tend to do well the things that they enjoy?

**Mike Penning:** Yes. One of the reasons that people take driving lessons so seriously is because they want to enjoy the roads and highways of this country for myriad different reasons, either for pleasure or for work or other things. It is a balance between being over-intrusive on people as to how they are trained to drive and how to do it. But you are absolutely right. The reason people are so keen to pay quite a lot of money to have lessons and pass their test is because they are going to enjoy the facilities that the licence gives them.

**Q353 Steve Baker:** Would you say that this sense of taking pleasure in driving has an impact on compliance with the law and, in particular, on voluntary compliance with the law?

**Mike Penning:** I am not seeing any evidence for that, whether as the Minister or going to RTCs, or RTAs, as they were in my time. Enjoyment in driving means a lot of different things to different people, but invariably getting from A to B quite fast or as fast as they can tends to be part of their enjoyment, and that tends to put other road users at risk. It is difficult. I cannot say that I would like everybody to enjoy every journey because they may be exceeding the speed limit every single time, and, vice versa, because there are people who drive inappropriately slowly, particularly on our motorways, or drive inappropriately slowly in certain lanes; it is usually the middle lane if you have a three-lane motorway. That is just as much of a danger at times than other inappropriate behaviour. It is not just speed; it is how we drive.

**Q354 Steve Baker:** I have a final point on this. We have seen in the press variously a sense that there has been a war on the motorist. Do you feel that these issues could be brought together not only to end the war on the motorist but also to improve effective traffic management and driver safety?

**Mike Penning:** The Secretary of State quite rightly said right at the outset that the war on the motorist was over. Right at the start of the coalition he said that. He said it because it was true and he felt that we needed to have a different rapport with the motorist. We take a great deal of money from them and give them a very hard time to allow them to use the roads in this country, no matter what they are driving. There had been a feeling, which I think was understandable, that we have beaten up the motorist time after time after time. The police will say this to everybody. If you want to have compliance, you have to work with the person from whom you are trying to get the compliance. It is not just a big stick all the time, because it just does not work eventually. We have seen that in areas, for instance, to do with our proposals on drink driving—I know the Committee looked at this carefully. We looked at whether or not we would drop the limit on drink driving. That would not have affected the others who drink inappropriately all the time to excess; they are obviously the ones we are going to be going for rather than everybody.

**Q355 Chair:** We have received many representations about dealing with the aftermath of incidents on roads and on motorways. In the review of how that is dealt with, we are told that improvements identified will not be put into practice until December 2012. Why is there such a lead time?

**Mike Penning:** This is a multi-agency review. You can't just wake up one morning and say, "We've changed the whole way that we deal with major incidents." I know the public would very much like us to do that, but it has to be rolled out and it has to be particularly rolled out through the police. For this to work, the police have to be comfortable that at the scene of a crime, which in many cases it is, they have the correct evidence that they need. For instance, I have just invested £3 million of DfT money on equipment that the police are going to use to help speed up dealing with incidents. This is nothing to do with the review. This is something we wanted to do straight away.

Of course, there are more agencies being involved with RTCs than ever before. For instance, on the M25 very recently there was a gentleman who committed suicide by jumping from a gantry. The road was closed for some considerable time. The police would have liked to have that open and handed it back to the Highways Agency. However, understandably, the local coroner intervened and asked for more evidence from the scene. As we roll this out, and we will roll it out, it will have to be rolled out with everybody understanding what the new guidelines and policies are. It will have to be flexible because every incident is different for those involved. They are different for the police and sometimes, as I say, other agencies are involved, particularly the coroner, and agencies like the Ambulance Service and the Air Ambulance—we

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tend to have to shut the other lane while the Air Ambulance lands. One of the things we are looking at is whether we have to do that, or whether we could keep the other side of the motorway open while we land a helicopter in front of the incident, and whether or not that would be too much of a distraction for drivers going the other way as the helicopter lands. There is more than enough room. It is all to do with distraction, as I understand it.

**Q356 Chair:** What are you doing as a Minister to try to expedite this? I accept the point that there are a lot of different authorities involved and the police are key to it, but what are you doing to make sure that something is done sooner rather than later?

**Mike Penning:** This is the first time this has happened. This is the first time, as a Department, we have said to the other agencies that the amount of time that our network is closed is unacceptable and what are we going to do about it. We have sat down for the first time with all the agencies, particularly with ACPO, and the new chief constable representing ACPO has said, "We accept that there are better ways we can do this now." It had been left for years. What they were doing was not bad. They were doing their job, but they were not taking into consideration the economic effects. What they were looking at was the investigation effects.

At the same time, who is in charge of what piece of the road at any time? A classic example is when I was up on the M62 visiting the Highways Agency headquarters. They had been monitoring a gentleman changing his wheel on the hard shoulder. His wife—it was definitely his wife; we did not know that at the time—got out of the passenger seat and walked around to the back, probably to say to him, "How long are you going to be", all the sorts of things you can expect people to be worried about. As she did so, they were hit by a 38-tonne lorry. The evidence shows that they were killed instantly. That motorway was closed for eight hours. The 1,000 cars that were trapped between the incident and the junction where the motorway was shut were allowed through on the outside lane after an hour, after the screen quite rightly had been put up. I asked why that lane was not left open, because any evidence that was in the lane would have been destroyed. The police did not have the confidence to hand that back to us at that stage. That is the sort of pressure we are putting on them under the new working arrangements. You have to ask the question why, Madam Chair. Those questions as to why, because it was different departments and different agencies, had not been asked and they are being asked now.

**Q357 Julie Hilling:** I want to ask about road safety, again about other road users. We have talked about the need for enhanced driving skills, etc, on motorways for car drivers, but what about motorbikes and cyclists? Often, they do not seem to think that the rules of the road apply to them, certainly in London where it seems to be all right if you just cycle through traffic lights. Is there anything that you as a Department are doing in terms of cycling proficiency, enforcement, etc, around that?

**Mike Penning:** This is where we are split—not split as in "split" but part of the portfolio sits with Norman and part of it sits with me. If he would like to do his bit, then I will do mine.

**Norman Baker:** We are doing quite a lot to encourage good techniques because we have given a commitment to fund Bikeability for the entirety of this spending review period, which is a commitment of £11 million this year. The Local Sustainable Transport Fund, which I referred to earlier on, of £560 million to encourage sustainable transport locally has been a vehicle for cycling, including safer cycling, off-road cycling for example, to be prioritised. A number of bids have come in from that. The funds have been well received by local authorities and there will be an announcement shortly on which have gone forward. Clearly, getting to cyclists early in life at cycle training is the best way to ensure that they stick to the rules of the road, which they have to do. They are not allowed to go through traffic lights at red. If we can get them trained properly at school level, there is a chance that they will carry on in a safe way throughout the rest of their cycling lives. But obviously there are road safety issues which Mike deals with in his part of the portfolio.

**Mike Penning:** Just before I touch on that, the big thing to do with cycling, especially with infringements of the Road Traffic Act, is enforcement. If a motorcyclist, car, bus, taxi or a lorry goes through a red light, they have a pretty good chance of getting a ticket through their letterbox in the next couple of weeks. You are not going to get that with a cyclist. It is education and, if you wish, some on-the-spot enforcement with the police having those powers.

We want to encourage more people to cycle, but I was born and bred in London and every day I have always seen cyclists do this; it is nothing new. They have been jumping the lights in London since I was a kid. Every now and again you see a statistic in your local paper as to what happens, because it is a lethal thing to do, but they do it every day. So many people commute, particularly in London, and cycle in these days. They think, "I come through these lights. I have always got away with it", and then invariably it will be something like a motorcyclist who is not in their vision who will pick them off. That, to me, is so sad because it is for the sake of a few seconds. The lights in London and other big cities change on such a regular basis and, as Norman was alluding to earlier on, highway authorities tweak around with the odd two, three, or four seconds. It is so sad for someone to lose their life just for a few seconds.

To go on to motorcycling, which I alluded to earlier on, one of my passions not only as a Minister but as a biker is that we massively get to grips with the deaths and serious injuries on motorcycles, which have been going in the wrong direction. There was a 4% increase last year, when everything else is going in the other direction. We have a full review going on into the test itself, which is off-road at the moment for the first part and then on-road. I know the Committee looked at this years ago, but I cannot understand how we got to a situation where someone could drive for an hour and a half on their motorcycle on their own to go to a test centre to take their off-road test and fail

it and be allowed to drive back home again. It is an absolutely ludicrous situation. We need to go to one test, a single test, so people can be tested and see whether they are safe on the road or not.

But, at the same time, we need post-test skills. Too many people of my age going through a midlife crisis suddenly disappear down to the bike shop or see a motorcycle on eBay, go and buy themselves a huge great motorcycle, which is sitting in my garage, but they have not used those skills for 30 years. They may never have driven a bike of that sort of size.

Of course, the third group—not wishing to take the Committee's time up too much, Madam Chair; I do apologise—is what I call the casual scooter drivers or the commuter drivers. People wear inappropriate clothing when they are on a scooter or a moped. If we go outside today, we will see this; they think they are perfectly immune to whatever they are going to do. If they come off a scooter at a very low speed in London and they do not have appropriate clothing on, they are going to be scarred for life, if they do not lose your life. It is not motorcyclists; motorcyclists kit themselves. There are very few motorcyclists who do not do that. We are becoming a mini-Athens or Barcelona with scooters flying everywhere, and it is great because it is cheap and it is a lovely way to get around the city. But if you are not appropriately dressed with the proper sort of helmet on, you are putting your life dramatically at risk and we have to try and get through to people about that.

**Q358 Steve Baker:** It is a very short point and I think Mr Penning possibly largely answered it. In relation to cyclists, it just struck me that, surely, almost all cyclists know that they should not ride through red lights.

**Mike Penning:** Of course they do. It is like when you go to the pelican crossing and if it is green you walk, but you have a look to make sure, and if it is red you do not go across. It is not all of them because we must not put them all into a box, but there are a disproportionately high proportion in the bigger cities, particularly here in London, which is where my experience is. Sadly, they become a statistic.

**Q359 Chair:** Do we need any more legislation for more effective road management?

**Mike Penning:** I will say no. Norman will say—

**Q360 Chair:** I am going ask to each of you separately then. That will be an interesting answer. Mr Baker, what is your view?

**Norman Baker:** We need to look at what we have. We have this challenge going on to examine the legislation we have and we want to make sure it is fit for purpose. Sometimes we might need different legislation from what we have by tidying up what we have. So we are certainly looking at that. Certainly, in the street works area we want to make sure that the incentives or disincentives are the right ones, so I am examining that whole area now. We are not looking to pile on legislation but we are looking to make sure that the outcomes we all collectively want are delivered.

**Q361 Chair:** When do you think you will be in a position to make a decision on whether to introduce more legislation?

**Norman Baker:** On street works?

**Q362 Chair:** For example, street works, yes, or on any other areas.

**Norman Baker:** There is a process going on now, the Red Tape Challenge, which is looking at all aspects of road transport legislation, in which Mike and I have both been involved in different ways. I looked at the legislation related to buses and taxis yesterday, as a matter of fact. We are looking at that now and street works will come up in that process. This is now ongoing.

**Mike Penning:** For my sins, within the Department, as well as all these other hats, Madam Chair, I am the Deregulation Minister and I represent the Department on the relevant Cabinet committee. In the Red Tape Challenge, we are looking in this particular area at about 450 pieces of legislation that we feel may not be fit for purpose, appropriate or of any use whatsoever. We need to remove as much as we can, but we also have the commitment that for non-EU legislation—I stress non-EU legislation because about 50% of what comes across my desk is EU legislation—it is one in, one out.

**Q363 Chair:** Can you give us any examples of useless legislation?

**Mike Penning:** There is legislation around to do with horses and carts—where you are allowed to tie them up and what you can do with them. I cannot remember the last time I saw a horse and cart in London or in a big city.

**Q364 Chair:** Are there any other examples of things that we might all remember seeing?

**Norman Baker:** I think there is an offence of furious driving which only applies to taxi drivers because they used to be Hackney Carriage drivers, from about 1847. I must admit I have not seen any taxi drivers driving furiously; they drive rather slowly in my experience, to keep the clock ticking over. That is one example perhaps. There are two sorts of law that need to be dealt with. There are laws that happen to be redundant such as the horse and cart legislation, which, frankly, should be tidied up while we are looking at legislation, but the other legislation is that which perhaps has become outdated or a barrier to what we want to achieve. It is that in which we are more interested. The taxi legislation, for example, is very complicated. We dealt with this last time I was before the Committee and we need to look at that. I have asked the Law Commission if they will take that as a study project to try and tidy it up or recommend how we might tidy up taxi legislation because it is hugely complicated and goes back to early Victorian times. It is a bit of a mess, frankly.

**Mike Penning:** As we develop the localism agenda more and more, which we are very committed to, there is legislation, for instance, that requires the Department or a Minister in the Department to allow something to happen, which is on the local agenda.

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**Q365 Chair:** But in relation to this inquiry, how do you reconcile, Mr Penning, the Government's commitment to localism—perhaps I should address this to both of you—with the need to look at road networks? How can it all be local if you have these areas and networks?

**Mike Penning:** The networks are controlled. The national road network is controlled by central Government and we have the Highways Agency as our vehicle to do that. We give guidance to local government, but we do not dictate to local government how they should operate in their area because that would be wrong.

I will give a classic example. We have just seen Formula 1 this weekend, which was on a partly road circuit in Canada. For any motor vehicle event in the UK at all or any vehicle event that is motorised, there has to be an Act of Parliament passed for each individual one, which in the 21st century is ludicrous. If the local authority and the Motorsports Association want to do a karting event somewhere or there is the Isle of Man TT or something like that on the mainland of the UK, they cannot do that without the Secretary of State and myself agreeing to pass an Act of Parliament. That came in from 1928. To me, that is ludicrous in the 21st century.

**Norman Baker:** This is an example of the point Mike was making about Ministers having to deal with matters which we should not be dealing with, in my view. One of the first things I was asked to do was to sign off the roadworks permit scheme for Northamptonshire. I said, "Why am I doing this? What has it got to do with me? If Northamptonshire wants it, why doesn't Northamptonshire get on with it?" We are going to take away, or we are consulting on taking away, the power of the Secretary of State to have to give authorisation for permit schemes.

The interesting philosophical question is then whether you get diversity, which has implications for roadworks operatives across the country if you have slightly different arrangements in each area. To some extent you do get diversity, but that is a price worth paying to get the localised tailored solution you want for each area, rather than trying to impose a Napoleonic top-down arrangement on local authorities.

**Q366 Chair:** You see it as diversity rather than postcode lotteries.

**Norman Baker:** Absolutely. I think it will also drive up performance; I really do. I have seen local authorities in my time as a local councillor who wanted to do things and been stopped from doing them. If you allow experimentation to some extent at local authority level, then you will find some really good ideas coming forward. It will drive up performance to have central Government letting local government free to experiment.

**Mike Penning:** Just to clarify, I do not want to mislead the Committee. If the Committee would like to look at the 450-plus pieces of legislation, they are on the Cabinet Office website.

**Q367 Chair:** Is the managed motorways scheme going to be adequate?

**Mike Penning:** Adequate, Madam Chair, is a really difficult thing. Is it going to allow us, in these difficult financial times, to sweat the assets and get more out of our motorways than before? Yes, it is. As I said right at the start, I was sceptical about managed motorways, particularly with hard shoulder running. I went in with an open mind and I was wrong. The evidence from the M42—which was, to be fair, massively over-engineered to prove the point in the pilot; now they have rolled back a lot of engineering—is that it is working. What is a disappointment is that we have committed ourselves to some really serious expenditure on motorway widening when we could have gone for hard shoulder managed motorways. The National Audit Office report indicates that about £1.2 billion was inappropriately spent.

**Q368 Chair:** We received some evidence from the police who expressed concern about applying the scheme to other sorts of motorway where they think accidents might occur more often and it might be more difficult to deal with them.

**Mike Penning:** I would be very interested to read that. I have not had that. Of course I work very closely with the police. Earlier on, there were concerns as to whether or not we could reinstate the hard shoulder when we had breakdowns, etc. The gantry technology and the way the cameras work, not just to prosecute people for speeding, has indicated that where we have had those instances, it has worked really well. We have had no instances of people being marooned, any more than they would have been on any other motorway in any other incident.

**Q369 Chair:** Mr Baker, could you tell us your general views on bus priority lanes? We have had conflicting evidence about their usefulness.

**Norman Baker:** I sort of dealt with that earlier on. Bus lanes have a useful role to play and a particularly useful role to play in a concentrated urban area, where there is perhaps congestion and a very frequent bus service is held up. The evidence I have seen from different places is that in those sorts of locations, by providing a bus lane, which gets the bus from A to B much quicker than the car does, you can get significant modal shift from car to bus, to such a degree that the number of cars is reduced in the sense that the car is perhaps no worse off at the end of it but the bus passengers are much better off. In those sorts of location bus priority lanes are very useful. But they have to be tailored for individual circumstances. Not every road is appropriate for a bus lane. Some roads are appropriate for long bus lanes; some are appropriate for 24-hour bus lanes; some are appropriate only in rush hours. It has to depend on the individual circumstance in the individual town, and councils will be best to take that forward. But I have no doubt that bus lanes are a significant tool. Certainly, bus operators will tell me that they are very useful in getting people on to buses.

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**Q370 Chair:** Do you have the impression that they are managed reasonably by the local authorities and transport authorities?

**Norman Baker:** Like anything else, many are managed very well and some are managed not very

well, but you could pick any function of local government or, indeed, national Government and apply that solution to it.

**Chair:** Thank you very much, gentlemen, for coming and answering our questions.

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# Written evidence

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## Written evidence from Urban Traffic Management & Control Development Group (UDG) (ETM 05)

### 1. EXECUTIVE SUMMARY

1.1 Effective road and traffic management involves a complex deployment of policy, physical design, signage, licensing and—increasingly—technology systems. While fixed aspects (such as junction design) provide the basis for management, only technology can provide responsive management of a day to day (and sometimes minute to minute) basis.

1.2 Technology can be complex, risky and expensive, and much effort has been put by both public and private sectors into minimising these issues. However the pace of change means that this needs continual review and guidance.

1.3 DfT has been helpful in this area for many years. We believe that there are areas where central Government could and should continue to provide leadership and guidance, especially in ensuring that the various organisations involved—and the systems they use—work effectively together.

### 2. ABOUT THE UDG

2.1 The UTMC Development Group (UDG) is a community body<sup>1</sup> which brings together local highways authorities, the Highways Agency, the systems industry and the service sector. It was formed in 2003 to bring to market the output of the DfT-led Urban Traffic Management and Control (UTMC) research programme (1997–2003).

2.2 The UDG is led by an elected Management Group, supported by a professional Secretariat; resources are a mix of central funding (previously provided by DfT, currently by HA), membership subscriptions, and income from the UTMC Annual Conference which has run since 1997.

2.3 The core of UTMC is a set of open technical specifications, designed to help highways authorities specify their needs and to help industry deliver effective solutions. The kinds of system that it covers include the following (though more are being added all the time):

- Monitoring systems for air quality, CCTV images, etc.
- Control systems for traffic signals, barriers, etc.
- Variable message signs, for car park information, journey times, warning messages etc.
- Strategic systems for network coordination, incident management etc.
- Links to public transport operations, for bus priority etc.
- Public information websites.

2.4 By using UTMC specifications, traffic managers can competitively procure products from multiple suppliers, and integrate them reasonably easily and with minimal cost and risk.

2.5 UTMC is policy neutral, and designed as a “toolkit”, enabling users to build on no more than they need, and at their own pace. Specifications are primarily derived from system developers, but subject to open public consultation prior to adoption, so they are kept both practical and market neutral.

2.6 UTMC specifications are not mandatory “standards”, but practical consensus recommendations. Authorities and suppliers are free to adopt non-UTMC solutions if they believe them to provide better value for money. This imposes a strong discipline on the UDG to stay relevant and focussed.

2.7 As policy challenges develop and technology opportunities continue to diversify, the UDG works increasingly in collaboration with other specifications groups, both in the UK and internationally. Our commitment is to act as a “self-help” group for the industry, to enable traffic managers across the country to do their job better, cheaper and more consistently.

2.8 UTMC became “mainstream” in the UK urban context from about 2006; there are now something like 100 implementations, including some outside the UK. It has recently benefited from a major boost with the active engagement of the Highways Agency, which is now looking to adopt/adapt UTMC to the interurban context.

2.9 Our evidence to the Committee concerns (and is limited to) evidence on areas where technology systems can help, or hinder, the management of road traffic.

### 3. FACTUAL EVIDENCE

#### *Prevalence and impact of traffic congestion and likely future trends*

3.1 The UDG’s starting point is that there will continue to be traffic congestion events for the foreseeable future, and that the negative effects of these can be mitigated by active management.

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<sup>1</sup> See [www.utmc.uk.com](http://www.utmc.uk.com).

3.2 A general trend to higher traffic levels will of course affect the prevalence of congestion, in much the same way that climate change affects weather events. The focus on traffic managers locally is to mitigate this trend by appropriate interventions, keeping congestion to (hopefully) acceptable levels.

3.3 Congestion “events” can occur for many different reasons: traffic accidents, road layout strictures, popular cultural events or just excessive traffic flow. These different congestion contexts have their own distinct dynamics.

3.4 Good management can pre-empt the occurrence and mitigate the impacts of congestion events. For instance:

- Accidents can be managed by activating diversion routes, speeding up access by emergency vehicles etc, thus reducing secondary accidents.
- Junctions can be managed by monitoring the approaching traffic and selecting “strategies” for balancing green time, pedestrian phases etc.

3.5 So, the effectiveness of management will affect the frequency and impact of congestion events that actually occur.

#### GOVERNMENT AND LOCAL AUTHORITY INTERVENTION

3.6 The different types of congestion normally call for different responses. Different authorities may choose to intervene in different ways, either for local policy reasons or simply because the nature of the networks differs.

3.7 Some interventions are strategic and have effect over a wide area and a long period of time, such as modal shift mechanisms (improved public transport, better pedestrian facilities, more cycle parking etc). Some may be described as pre-emptive—for instance, when planning a new development, the transport layout is also re-planned.

3.8 Technology systems such as those based on UTMC tend to be used for tactical management, ie for minute-to-minute or hour-to-hour changes.

3.9 Authority interventions are under continual review and evolution, to create greater understanding, coverage and coherence in managing the road network. For instance, the HA Integrated Network Management (INM) Programme consists of a set of technology Proof Of Concept projects developing, installing and making operational UTMC Common Databases. The planned UTMC-based technical platform provides facilities, supported by operational and technical processes, that join up HA traffic control and management systems to each other and those of neighbouring LHA UTMC based traffic systems and are readily compatible with many suppliers systems enabling greater integration, innovation and value for money than bespoke systems.

#### ROAD USER CULTURE AND BEHAVIOUR

3.10 Three kinds of technology systems affect road users: road-based systems, road users’ own systems, and third-party systems.

3.11 For road-based systems there is a long-standing distinction between mandatory “control” systems—traffic signals, dynamic speed limits, lane closures etc—where compliance is high, and “information” systems where compliance is much lower (and highly variable). This distinction appears to be becoming blurred with systems such as vehicle-activated speed limit signs, which are treated as “reminders” rather than instructions.

3.12 Driver systems have emerged in a big way over the past few years, particularly satellite navigation and route guidance systems. Simultaneously, public transport users are increasingly benefiting from travel information available from mobile phones. This kind of development gives users a more direct control over their own travel.

3.13 Unfortunately there is a conflict between individual optimisation and system-wide optimisation. For instance, if a motorway is becoming congested ahead, any individual driver might do better by diverting through side roads—but if everyone took this advice, the system as a whole would immediately choke the side roads. This is particularly likely when responding to an incident (thus prolonging or spreading its effects). There appears to be little that network managers can do to prevent this kind of behaviour, though there may be scope in reaching agreement with driver systems providers regarding permissible diversion routes.

3.14 Third-party systems are currently limited to fleet management (for freight or for public transport fleets). In future, there may be many other systems, including vehicle-to-vehicle (“V2V”) communications or external bodies directly limiting vehicles’ speed (“intelligent speed adaptation”, ISA). We are not aware of any behavioural research in this area—the recent European project on “cooperative vehicle infrastructure systems” did not include any<sup>2</sup>; but we expect this to complicate matters further, by providing quasi-official directions which may be at odds with tactical network control. (Satnav information already does this to an extent.)

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<sup>2</sup> See [www.cvisproject.org](http://www.cvisproject.org).



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 INTELLIGENT TRAFFIC MANAGEMENT SCHEMES

3.15 There are many technologies that could, in principle, contribute to “intelligent traffic management”, in that they capture, analyse, project and disseminate information about how road users should be directed and/or advised. Authorities are open to considering most of them, though they will quite properly look for evidence that they will make a positive contribution.

3.16 There are few comprehensive economic studies on their impact. The DfT’s most recent attempt resulted in a “toolkit” of mechanisms and likely effects, rather than a cost-benefit analysis.<sup>3</sup> The toolkit does, however, provide many detailed results such as:

- “The Cleopatra project in London found that 58% of respondents would immediately respond to VMS congestion warnings, of which 83% would reschedule their journey and 6% would change modes.”
- “Following implementation of SCOOT [in Southampton], there were 18% and 26% reductions in journey times during the am and pm peaks respectively. Corresponding reductions in delay of 39% during the am peak and 48% in the pm peak were achieved. Economic benefit (excluding accident savings) equated to £140,000 in 1985.”
- “11% saving in [Cardiff bus] journey times in peak period. Where priority given to all buses, 4% journey time saving and 45s improvement in schedule adherence. Where priority given only to late buses, 3% journey time saving and 90s improvement in schedule adherence.”

3.17 The US Federal Highways Administration has recently published a 160-page report<sup>4</sup> which summarises the results of almost 100 separate studies. The largest single contributor of economic benefit was electronic toll collection—but this was against a baseline of cash-based toll collection. Second in importance was traveller information (conceived as variable message signs). However this report covered studies on benefits from current technology deployment: unevaluated, underused and developing technologies would not show up as important.

3.18 Localised benefits studies for specific interventions are more common. Work done under the UTMC programme found substantial quantifiable reductions in congestion arising from car park guidance systems (in 2004).<sup>5</sup> Older work<sup>6</sup> has shown benefits of area-wide traffic control, of bus-triggered signal priority, etc. These are not always focussed on congestion benefits—some studies relate to environmental aspects such as air quality improvements<sup>7</sup>, or to road safety.<sup>8</sup>

3.19 In light of all these technical possibilities, the key challenge is to build useful *products* into useful, coherent, and effective *schemes*. This calls for some key skills, including scheme design, scheme evaluation, and project management. These skills, typically provided through a mixture of authority staff and contractors, are in short supply. It can be challenging for small authorities in particular to ensure that the right skills are available.

3.20 Partly for this reason, some schemes have emerged as collaborative among two or more authorities. But this collaboration also has a more strategic value. Where neighbouring authorities operate independently, the roads running between them may not be coherently managed and this can give rise to unnecessary congestion; collaboration avoids this.

3.21 It can be difficult to establish and operate schemes across multiple authorities, especially if the local transport policies diverge. Successful partnerships include:

- Authorities with a historical connection<sup>9</sup> (Kent/Medway, Hampshire/Southampton/Portsmouth, Dorset/Poole, etc).
- Authorities in a metropolitan area, for public transport (where the Passenger Transport Executive can lead/coordinate).

3.22 Areas where collaboration is generally recognised as necessary but underprovided include:

- Links between the strategic and local roads networks.<sup>10</sup>

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<sup>3</sup> See <http://www.dft.gov.uk/itstoolkit>. Citations are from the “digest of results” tab.

<sup>4</sup> See <http://ntlsearch.bts.gov/repository/record/ntl/34991.html>. NB—it is difficult to summarise this report without losing some important caveats.

<sup>5</sup> Reports now archived, but available on request.

<sup>6</sup> Much work has been undertaken by TRL in this area.

<sup>7</sup> The University of Leeds Institute for Transport Studies has a long-standing programme of environmental research.

<sup>8</sup> Famously, by the Highways Agency for the M42 Active Traffic Management project.

<sup>9</sup> However a submission to the Select Committee for the ODP in 2006 noted that “the fragility of such arrangements were demonstrated when Wokingham and West Berkshire withdrew from the Reading Urban Area Package partnership arrangements”—see <http://www.publications.parliament.uk/pa/cm200506/cmselect/cmwdpm/977/977we52.htm>.

<sup>10</sup> Notwithstanding significant effort by the Highways Agency and others. For instance, the National Guidance Framework provides for bilateral Detailed Local Operating Agreements between HA and local authorities. The current version was published in 2007—see <http://www.highways.gov.uk/business/documents/NGF.pdf>.

- Authorities in a metropolitan area, for road network management.<sup>11</sup>
- Sub-regional integration between “hub” and “hinterland” authorities.

3.23 Anecdotal evidence suggests that much of the most serious congestion on the urban and inter-urban road network is caused by problems on the strategic network. (We are not aware of any research to quantify this.)

#### LEGISLATIVE PROVISIONS FOR ROAD MANAGEMENT

3.24 The principles of the New Roads and Street Works Act 1991 (NRSWA) and the Traffic Management Act 2004 (TMA) are widely supported. Sharing information about roadworks provides the potential to minimise the disruptions they cause. Similarly, monitoring and managing the local road network by an authority, mindful of the impact on other parts of the network, is necessary to minimise the congestion caused by vehicular free-for-all.

3.25 The devil, however, is in the detail. In respect of TMA in particular, it is unclear what constitutes adequate management, “so far as may be reasonably practicable having regard to their other obligations, policies and objectives”, to comply with the Act<sup>12</sup>. In practice, therefore, the effect is essentially to codify the LHA’s role in legal form.

3.26 With both NRSWA and TMA, there are systems and data issues that cause practical difficulties in network management.

- Systems to manage streetworks do not export data that can fit into systems that manage traffic. If they did, it would be possible for fixed control systems to be reconfigured, semi-automatically, around temporary traffic lights, which could alleviate significant congestion around urban streetworks.
- Systems used within different authority areas could, but generally do not, send live network data to each other. If they did, it would be possible for an area’s systems to respond to traffic which is about to enter the area, and to forewarn drivers to problems in neighbouring areas.

3.27 Like UTMC, the Electronic Transfer of Notices (“EToN”) specification for streetworks is supported by DfT.<sup>13</sup> It has, however, been difficult to engage to resolve this issue.

#### IMPACT OF BUS LANES AND OTHER ASPECTS OF ROAD LAYOUT

3.28 Broadly speaking, congestion occurs when the number of vehicles on a road section exceeds its capacity for one of two reasons:

- The incoming flow of vehicles is too high.
- The speed of vehicles is too low.

3.29 An example of the first might be where two lanes merge into one. One possible effect of a bus lane, if badly designed, is to create this kind of anomaly; however, paradoxically, a bus lane could relieve this congestion<sup>14</sup> by taking out the second lane “upstream”.

3.30 An example of the second is at a junction. Vehicles slowing to turn and/or to give way can cause the junction to back up. There is a balance between no control (drivers move whenever they can), roundabout (fairly steady low speed circulation) and traffic signals (alternating between stationary and higher speed): which is best will depend on local details.

3.31 Technology systems provide an added layer of management which can, unlike road layout, respond dynamically to changes in flow patterns—for instance, morning and evening peaks will usually have different predominant directions.

3.32 Technology systems can also help to predict the effect of changing road layouts, in particular through running simulation models. However it can be very computer-intensive to achieve a reliable model in a dense urban network.

#### 4. RECOMMENDATIONS FOR ACTION

4.1 We believe that central Government has a role in helping local highways authorities manage their networks more efficiently, including through technological mechanisms like UTMC.

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<sup>11</sup> This position is changing: see for instance the West Midlands UTC Major Scheme (<http://www.westmidlandsltp.gov.uk/majorschemes/utc>). The move to Integrated Transport Authorities is likely to spread this further.

<sup>12</sup> The Traffic Management (Guidance on Intervention Criteria) (England) Order 2007 is intended to explain this (see <http://www.legislation.gov.uk/uksi/2007/339/made>, especially Clauses 18 and 19) but is very general. If a car park guidance system can “secure the expeditious movement of traffic” and is “reasonably practicable”, is a failure to provide one a breach of the Act? If so, is a local policy choice to avoid street clutter sufficient to excuse non-provision?

<sup>13</sup> The current version of EToN, dated May 2008, is published on the DfT website at <http://www.dft.gov.uk/pgr/roads/tpm/tmaportal/tmafeatures/tmapart4>.

<sup>14</sup> Those who argued for the bus lane on the M4 Heathrow spur have made essentially this argument.

4.2 We would like to see more encouragement for, and guidance on, cross-boundary operations. This might be through:

- Open technical standards (building on initiatives like UTMC).
- Operational codes of practice (building on initiatives like the HA's National Guidance Framework).
- Full-fledged shared services (building on ITAs and LEPs).

4.3 We would also like to see more encouragement for, and guidance on, cross-functional operations. Traffic management systems should understand and respond to (systems used for):

- Roadworks.
- Incidents and accidents.
- Environmental management.
- Land use planning.

4.4 As recent circumstances have shown, there remain challenges in the collection, collation and dissemination of *appropriate* information to the travelling public in the event of traffic disruption. While this is a legitimate public expectation, it is genuinely hard to get right, and can be expensive and risky. We believe that targeted research on how to fulfil citizens' needs cost-effectively would be widely welcomed by local authorities.

4.5 We believe that the work of good local projects should be made available to others, to minimise "reinventing the wheel". This not only enables a faster rollout of good practice; it also makes for a more streamlined and more robust supply sector.

4.6 We consider that there should be stronger incentives for local highways authorities, and their communities, to create the links and good-practice libraries that this implies.

4.7 Most of the investment required to achieve this will be in local schemes, or for developments within the systems industry. However DfT has a key role in political leadership, in particular to ensure that the various initiatives are "joined up".

January 2011

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**Joint supplementary written evidence from Urban Traffic Management & Control Development Group (UDG) and the Institute of Highway Engineers (IHE) (ETM 05a)**

1. CURRENT AND BETTER SYSTEMS

Ref Q182: *Can congestion be improved by traffic management schemes?*

Ref Q183: *Which ones? What types of schemes?*

Ref Q185: *Can any of you give an example of a technology that you think could solve the problem of congestion or go a long way towards solving it but which is not being used enough or being applied? Perhaps you could indicate why you think it might not be being used enough*

1.1 As traffic is generated by many societal factors, so the opportunity to manage it needs to be aware of these factors. In practice this means the integration of disparate computer systems.

1.2 Frameworks such as UTMC have been constructed, and are supported, precisely to allow this kind of integration. This has already had significant benefit around the country but there are many places that it is still underused. There are also a few areas where a stronger central push seems to be required.

1.3 Generally traffic management and public transport systems are working well together. The most significant opportunity probably lies in the use of traffic congestion data to inform bus arrival ("Countdown") predictions. Similarly, integration with car park systems helps reduce congestion by providing directions to vehicles which are searching for a parking space.

1.4 The integration of roadworks data into traffic management systems is less well developed: it currently depends on a considerable amount of specialist coding between local systems, and as a consequence is patchy around the country. This approach is inefficient: a standardised data feed into UTMC systems would allow local authorities to provide better and more timely public information (even over the weekend!). Equally importantly, it would enable traffic management systems to "self configure" around roadworks, which could significantly reduce works-related congestion.

1.5 Another key area where efficiencies could be achieved is the emerging infrastructure associated with electric vehicles. Where networks of charging points are under the control of the local authority, there is an opportunity to design and operate them, and provide information to drivers, in a way that minimises congestion.

1.6 Sponsoring this standardisation and coordination is, we believe, a clear DfT responsibility. Local authorities should then be able to implement it simply and cheaply.

1.7 Mention was made by others and ourselves of “SCOOT” and “MOVA”. These are two forms of computer-based dynamic traffic control developed by TRL (and its predecessors) as Government-funded research, and have since moved successfully to the private sector marketplace; both can deliver significant reductions in delay. DfT has published extensive guidance on these techniques.<sup>15</sup>

## 2. LOCALISM AND COOPERATION

Ref Q130: *...On bus priority and more general transport issues regarding congestion, is there an issue where local authorities do not work together? They do not co-ordinate their transport strategy*

Ref Q188: *You think it is a financial issue?*

Ref Q191: *Do you think there is enough knowledge in the appropriate authorities of what is available?*

2.1 There are many practical reasons why specific scheme designs need to remain local: the role of local politicians, the need for public consultation, the dependence on specific local circumstances etc. However for some aspects of traffic management, current highways authorities are geographically too small to ensure good design and coherent operation.

2.2 In metropolitan areas, especially where there is experience of working with a PTE, there is an increasing move towards a collaborative model. However, outside these areas progress is slower.

2.3 Cooperation between authorities, to undertake traffic management over larger areas, would enable skills to be pooled and offers the potential to both improve operations and cut costs (on both systems and people).

2.4 There are things that Central Government can do to help lubricate this process, short of issuing mandates. It can support the production of technical and operational standards, which make collaboration easier; and it can support the exchange of experiences, on where and how collaboration has worked. In addition to our previous evidence, some specific examples are indicated below.

## 3. BUS PRIORITY AND OTHER SIGNALLING INTELLIGENCE

Ref Q130: *...On bus priority and more general transport issues regarding congestion, is there an issue where local authorities do not work together? They do not co-ordinate their transport strategy*

Ref Q182: *Can congestion be improved by traffic management schemes?*

3.1 Bus priority at traffic signals is now widespread around the country. It need not require bus lanes but can be done instead through detection of buses approaching traffic lights. This does require buses to be equipped with location systems, but over half of the buses in the country are now so equipped.<sup>16</sup> DfT has undertaken much work in this area and issued guidance which the committee should be aware of.<sup>17</sup>

3.2 Similar intelligence can be deployed towards other specified vehicles—freight, emergency services, etc. This is much rarer in the UK but is beginning to happen—for example there is a project to give fire tenders priority at certain junctions in Leeds, and other PTEs are also exploring this.

3.3 It is true, as PTEG and Stagecoach noted, that this could weaken the priority given specifically to buses, but there may be areas where other priorities apply. For instance, logistics might be an important cause of congestion in the area around an industrial estate, where buses may be rare.

3.4 There is a continual dialogue between stakeholder groups and DfT to ensure that DfT is kept informed on the community perspective. However it can be challenging to identify who to talk to within DfT. It sometimes appears that local technology systems are more joined up than the relevant sponsors in the Department.

## 4. PART-TIME SIGNALS

Ref Q196: *...Is there an issue over part time signals on safety as well, because there has been talk, on roundabouts, about having traffic control signals at peak times to manage peak flows, and then when the peak flow comes off those signals no longer operate?...*

4.1 DfT has published a substantial guidance document on signal controlled roundabouts, which highlights potential issues with operating the same part-time.<sup>18</sup>

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<sup>15</sup> Reference information is available for SCOOT (“Split Cycle Offset Optimisation Technique”) and for MOVA (“Microprocessor Optimised Vehicle Actuation”) through DfT Traffic Advisory Leaflets—see for example [http://www.dft.gov.uk/adobepdf/165240/244921/244924/TAL\\_7-991](http://www.dft.gov.uk/adobepdf/165240/244921/244924/TAL_7-991), <http://www.dft.gov.uk/adobepdf/165240/244921/244924/tal109.pdf>, [http://www.dft.gov.uk/adobepdf/165240/244921/244924/TAL\\_3-971](http://www.dft.gov.uk/adobepdf/165240/244921/244924/TAL_3-971), [http://www.dft.gov.uk/adobepdf/165240/244921/244924/0700\\_SCOOT\\_gating.pdf](http://www.dft.gov.uk/adobepdf/165240/244921/244924/0700_SCOOT_gating.pdf).

<sup>16</sup> The UK “centre of excellence” for matters of this kind is RTIG-INFORM. Among other roles (some quite technical), RTIG-INFORM has undertaken an annual survey of public transport technology in the UK, on behalf of DfT, since 2002.

<sup>17</sup> *Bus Priority: The Way Ahead*—available on Government archives at <http://webarchive.nationalarchives.gov.uk/+http://www.dft.gov.uk/pgr/regional/buses/bpf/busprioritythewayahead12/prioritythewayaheadpdfversion.pdf>

<sup>18</sup> Available at <http://www.dft.gov.uk/pgr/roads/tpm/lnotes/ln109roundabouts.pdf>.

4.2 As mentioned at the hearing, DfT is currently trialling “flashing ambers” and will shortly be publishing advice on appropriate forms of traffic control during periods of low flow.

## 5. SKILLS GAP

Ref Q191: *Do you think there is enough knowledge in the appropriate authorities of what is available?*

5.1 There is a well-known and long standing challenge within local authorities, to attract and retain staff with the necessary skills in traffic management. This is today more complex than ever, as IT skills and contract management skills have been added to traffic network skills. Moreover, staff establishments have in many cases been reduced at local level, including through outsourcing arrangements. This constraint is both holding back the deployment of new systems, and limiting the use of existing systems.

5.2 As mentioned at the committee, the existing skills “gap” in the transport industry (and in particular in traffic management systems)<sup>19</sup> is likely to have a significant effect on addressing congestion in the future as the demographic problem of experienced engineers leaving the industry begins to bite.

5.3 We believe that even in such times of economic restraint, for the future good of the economy, urgent work is needed to establish how Local Highway Authorities and consultants can be encouraged and rewarded for directing staff to improve the design and management of the road network. To improve the recruitment, motivation and (perhaps most importantly) retention of skilled staff will require professional registration, training and development, and associated financial reward. The success and immanent expansion of the Highway Agencies Active Traffic Management (ATM) scheme shows what can be achieved with such investment.

## 6. GUIDANCE AND STANDARDS

Ref Q191: *Do you think there is enough knowledge in the appropriate authorities of what is available?*

6.1 The Department for Transport provides much valuable advice on road infrastructure and design and in the past has invested significantly in the development of alternative forms of traffic control and evaluation. We believe that similar benefit would be gained from the production of guidance by DfT, working with professional bodies, on a “congestion management manual”.

6.2 Such a manual, whilst not being prescriptive on Local Authorities, Private Sector developers or their agents, would by establishing agreed methods of data collection and modelling, allow for a common method of evaluating congestion before and after works take place.

6.3 Whilst not seeking to fetter their decisions it would allow policy makers/scheme sponsors to balance the many conflicting demands on our already overcrowded highway network and make informed decision cognisant of their effects on all highway users and the effect on congestion of such decisions.

## 7. NETWORK MONITORING

Ref Q200: *But how can technology assess the cost-benefit of installing a particular technology?*

7.1 Under the Traffic Management Act 2004, local highways authorities have a statutory duty to monitor the state of their network, and collaborate with their neighbours to ensure they work well. “Monitoring” involves the deployment of sensors,<sup>20</sup> and the collection and analysis of the data they provide.

7.2 There is no clear guidance on what kind of data ought to be collected and shared, either operationally (ie with neighbouring traffic managers) or publicly. It would appear to be a DfT role to oversee this process.

## 8. INCENTIVISING INTELLIGENT INVESTMENT

Ref Q197: *...I am just looking at possible ways that we can incentivise authorities to embrace technology and the Invest to Save model. I would be interested in your thoughts as to what that mechanism might be. Would it be a form of a challenge fund from the DfT in a way similar to the Local Sustainable Transport Fund? Do the LEPs or the Local Government Association have a role? What are your views on what might be the way forward?*

Ref Q198: *How best do we incentivise or encourage local authorities to use that once it is all packaged up?*

8.1 At the hearing, our instant response was deliberately careful as it is essentially a matter of central policy how to invest the limited amount of public funding.

8.2 It is undoubtedly the case that dedicated central funding would be helpful in sponsoring more implementation. Whether this is in the form of DfT research, standards and good practice, challenge funds, LTP guidance and scrutiny, ring-fencing or some other form—and how much, and with what scope—is a matter

<sup>19</sup> See for example the Final Report of Project Brunel, “Transport Industry Resources Study”, [http://www.theihe.org/training/uploads/project\\_brunel\\_final\\_report.pdf](http://www.theihe.org/training/uploads/project_brunel_final_report.pdf).

<sup>20</sup> Or the use of sensors that exist already, for instance buses with onboard location systems, third party CCTV, or traveller’s mobile phones.

for central policy. However we believe that there is a strong case for more investment to reduce congestion using the “toolbox” of design and operational mechanisms already available.

8.3 Any investment needs to recognise that systems require three separate types of funding, owing to the nature of local authority finance:

- Staff funding, for people to design, implement and operate the system.
- Capital funding, to procure and install the system.
- Crucially, revenue funding, to maintain and support them once in place.

8.4 There is inevitably a temptation for local authority officers to champion their function. However the governance structures within the authority are more than capable of challenging any project that might be deemed unjustified. We believe that this challenge process, particularly in the current financial climate, is sufficient to restrain vanity projects.

May 2011

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### **Written evidence from the Intelligent Transport Society (ITS (UK)) (ETM 06)**

#### 1.0 INTRODUCTION

1.1 The Transport Select Committee launched its inquiry into “Effective Road and Traffic Management” on 23 November 2010. The Terms of Reference and Call for Evidence invite organisations to respond to a series of questions about the effectiveness of road and traffic management, in the light of the Government’s decision not to introduce road pricing on existing roads (except in relation to HGVs).

1.2 The Transport Select Committee is inquiring how roads and traffic can be better managed in order to reduce congestion, encompassing both the major road network and urban roads and has indicated that it would particularly welcome written evidence on:

- the prevalence and impact of traffic congestion and likely future trends;
- the extent to which the Government and local authorities should intervene to alleviate congestion and the best means of doing so;
- the extent to which road user culture and behaviour undermines effective traffic management, including the relevance to today’s road users of the Highway Code;
- intelligent traffic management schemes, such as the scheme which has operated on the M42, and their impact on congestion and journey times;
- the effectiveness of legislative provisions for road management under the New Roads and Street Works Act 1991 and the Traffic Management Act 2004; and
- The impact of bus lanes and other aspects of road layout.

The Committee has indicated it would welcome evidence about congestion and road and traffic management in specific locations in England, as well as submissions covering broader themes.

1.3 The Prime Minister’s Strategy Unit’s Report on Urban Transport and the DfT’s response “The Future of Urban Transport”, published in November 2009, identified a range of transport challenges faced by our cities. The Report assessed the impacts of transport on the urban economy, health and environment and estimated the measurable annual costs of these impacts in terms of:

- congestion in excess delays (£12.0 billion);
- road accidents (£9.3 billion);
- poor air quality in particulate pollution (£4.5 to £10.6 billion);
- physical inactivity and the growing level of obesity (£10.8 billion);
- greenhouse gas emissions (£1.2 to £3.7 billion); and
- noise (£2.7 billion).

The above costs identify the challenges, threats and potential questions based on the above estimated £40 billion per annum external traffic impacts costs identified by DfT. It was commented at that time that there will be prescribed and/or mandated measures that could be included in a package of proposals covering cities or urban areas but it was expected to include a diverse range of challenging measures under several main headings of sustainable travel, encouraging modal shift, demand management and traffic management.

1.4 Outside urban centres, the impacts of freight and private transport continue to grow to the extent that the total external costs of land transport will inevitably approach a level of £100 billion yearly. Across Europe, the external costs attributed to HGV operations were last year estimated (ProgTrans study) to be more than €400 billion from all causes. Last year DfT estimated that the annual cost of congestion alone will reach £22 billion by 2025. This level of impact represents an appreciable percentage of the national income, decreasing overall wealth and quality of life.

1.5 A general overview may prove useful at this point to illustrate how road and traffic management operates. Capacity of a section of the road network in terms of vehicles per hour [vph] depends on its layout (engineering and topography) and the speed limit but achieving that theoretical maximum depends on the extent to which traffic is flowing freely. When a road is lightly trafficked speeds can reach the permitted maximum but the number of vehicles per hour (vph) will be low as the vehicles are widely separated. As the road becomes busier vehicles will continue to flow freely at first, but as traffic increases the speed will steadily drop, but the vph will increase until the point where maximum capacity is reached. If traffic continues to increase beyond this point both flow speed and vph will drop markedly and the road will become congested. The economic impact of congestion has already been described; the environmental implications are equally serious. Vehicle emissions per km on motorways increase three to four times in congestion—a vehicle travelling at 60 km/h emits 40% less CO<sub>2</sub> than one travelling at 20 km/h. Thus, reducing congestion and improving traffic flows considerably diminishes the environmental impact of road transport.

1.6 Sustaining the maximum throughput, and avoiding congestion, on a complex network of roads including multi-lane roads such as motorways, requires active intervention on a wide scale and a strategic approach that cannot be delivered by individual motorists. At minimum it requires the delivery of advice to drivers regarding prevailing conditions and expected trends and as traffic flows grow steadily over time it increasingly involves regulatory intervention by means of control of maximum permitted speed or access to the network or both. The key to maximising both the use of the asset—the road network—and the services delivered to users is being able to see and understand both the flows and pressures across a very large area and the measures available to make a difference, so that travellers can be given accurate and timely advice about the status of the network plus guidance on the best choice of routes where alternatives are available. In addition the network operators could use active traffic management measures such as “traffic calming” and generally try to control the rises in demand in much the same way as an electricity generating station aims to manage and balance demand and supply. The responsibility for optimal network management has to be transferred from individual drivers’ habits and preferences to an area-wide mandatory approach using powerful demand management tools.

1.7 Intelligent Transport Services (ITS), is the term used to describe combinations of electronic equipment, communications networks and people (though automatic systems are increasing) to deliver improved management of people, goods and data. Some examples—ITS can improve the efficiency of transport through traffic control and enforcement of traffic regulations and enhance road safety through both on-road and in-vehicle systems, eg for collision avoidance and better lane keeping. Many commercial organisations use ITS to manage vehicle fleets, both freight and passenger, through the provision of real-time information and two way communication between manager and driver. Electronic ticketing (by means of Smartcards, for example) and real-time travel information enables faster, easier travel by public transport. In addition Intelligent Transport Systems have beneficial effects on the environment by reducing air and noise pollution from highways and by helping to create traffic free zones in cities.

1.8 ITS United Kingdom, referred to hereafter as ITS (UK), is a “not-for-profit” public/private sector association financed by members’ subscriptions providing a forum for all organisations concerned with ITS. The Society works to bring the advantages that ITS can offer in terms of economic efficiency, transport safety, and environmental benefits to the United Kingdom—and at the same time expand the ITS market. Membership, over 150 UK organisations, comprises Government Departments, Local Authorities, Police Forces, consultancies, manufacturing and service companies, and academic and research institutions. ITS United Kingdom encourages discussion on issues such as public/private co-operation, standards, legislation, information provision and new technology. ITS (UK) was a significant contributor to the Parliamentary POSTNote 322 “Intelligent Transport Systems” published in Jan 2009. As a consequence of the above ITS (UK) will focus its responses to the Transport Select Committee’s questions on its known areas of expertise.

## 2.0 TRANSPORT SELECT COMMITTEE’S QUESTIONS—ITS (UK) WRITTEN RESPONSES

### 2.1 *The extent to which the Government and local authorities should intervene to alleviate congestion and the best means of doing so*

2.1.1 A number of recent initiatives such as those proposed as a part of Transport Innovation Fund (TIF) schemes and the Urban Challenge Fund have failed to address national and local problems of congested networks. Congestion in or around a city, large town, port or an airport is a consequence of the real-time demands placed on a network and, broadly speaking, will be best dealt with by the traffic management authority for that local area whereas congestion on the inter-urban network needs to be addressed at a strategic level by national or regional bodies. Complications arise where the national network passes through or close to locally managed sectors. There is rarely any joint planning or management as local areas focus on their own localised issues and have little interest or commitment to wider national and/or regional difficulties. There is also little recognition that local problems can be alleviated by controlling the flow of traffic on the wider network—ie if journeys are delayed or modes shifted then the flow of traffic into the town, port, etc can be reduced hence reducing congestion.

2.1.2 The recognised ways of addressing congestion are reducing demand, increasing infrastructure capacity or a combination of both. Techniques In the first category include reducing the flow of vehicles on to a congested link using traffic signals (ie “ramp metering”) and imposing charges for using the link at peak

periods (ie road user charging) as well as better travel planning and reduced need to travel (eg video and teleconferencing). In the second category we have road widening, signal-controlled use of the hard shoulders to create temporary widening, and “traffic calming”—setting a reduced speed limit for the carriageway when traffic density passes a set threshold. More detail on these approaches is given below.

2.1.3 Charging motorists to use the network is an extremely emotive issue and public acceptance of paying for the use of roads, particularly in light of the tax burden from fuel, VED, etc, makes this a topic that is politically sensitive. A coherent and measured proposal to present the case for charging and the resultant benefits is needed. To date the most notable success has been the London Congestion Zone whilst the most notable failure has been the Manchester TIF bid. It could be said that both cities have a similar traffic problem; however it was only through the personal and highly visible leadership of the then Mayor of London, Ken Livingstone, that the scheme was introduced.

2.1.4 For complex schemes to succeed local leadership and tight governance are needed. One major problem that local authorities encounter is the conflict between the long incubation and planning timescales for transport schemes and the much shorter political procedures that oversee them. As transport schemes take many years to design, receive formal approval prior to building and then operate, the eventual outcome of the scheme can be influenced, amended and/or undermined through local political requirements. The government needs to consider the case for an intervention scheme whereby it can empower itself and Local Authorities to guarantee traffic to flow naturally and without hindrance under normal circumstances but retain a capability of intervening as and when circumstances dictate.

2.1.5 Consideration might also be given to developing a regional approach to network management in the urban environment. As this is far more complex than managing the strategic road network it will require the inclusion of technological interventions, such as ITS systems, to promote active traffic management in the urban environment where most journeys start and finish as well as institutional arrangements and agreements between the Local Highway Authorities (LHA). Such a regional approach from LHAs, utilising ITS, would bring their operational capabilities up to those of the Highways Agency and provide the opportunity to pool resources—both human and technical. This approach would achieve a consistency of network management and would optimise capital and revenue costs through mutual hosting and sharing of facilities.

2.1.6 Area wide Urban Traffic Management & Control (UTMC) is a concept conceived and developed in the UK and has proved to be one of the most significant integration technologies employed to achieve effective network management. Over 100 Authorities utilise UTMC for adaptive traffic control systems that seek to create “normal” traffic patterns by regulating traffic flows. However in the current financial climate in local government there is a risk that the understated success of UTMC may be jeopardised through a lack of ongoing investment. Traffic growth may slow in some months but overall it continues strongly and continued investment is needed to keep the networks flowing to support commercial productivity. The competition that the UTMC open standards approach brings leads to better value from the availability of a wider choice of systems and components particularly when compared to the enormous losses to the UK’s economy through ineffective pan-national network management. Whilst those losses are not seen as real and cashable to LHAs it has proved difficult to build a cost/benefit analysis to support the investment in UTMC.

2.1.7 Innovative ITS technologies can unlock revenue from public assets such as on-street parking, where the use of technology can reduce the overall cost of implementation and operation; thus creating income from currently “free” parking areas as well as managing congestion. Similarly, access may be controlled (or charged) for commercial vehicle access, loading/unloading in city centres, and time may be rationed so that a fair policy can be enforced. Such facilities can be readily integrated into a UTMC database.

2.1.8 Local Authorities can set an example *via* the use of commercial facilities such as Car Club vehicles, which can be extended to a wider public. This can save money for the Authority and encourage lower vehicle use. Evidence suggests that the use of one Car Club vehicle can remove five vehicles from the city centre. Car Clubs operate via a range of technologies, including internet booking, smart card and satellite location to provide an economic alternative to private car use. The use of such alternative transport modes also means that journeys by car are shorter and the use of newer vehicles results in lower emissions.

## 2.2 *The extent to which road user culture and behaviour undermines effective traffic management, including the relevance to today’s road users of the Highway Code*

2.2.1 The complexity, volume and nature of road traffic have increased greatly in recent years and this in turn has affected the general behaviour of drivers. Until recently policing how road users complied with road traffic regulations was the responsibility of the Roads Policing Departments of the UK’s Police Service. However a redefinition of police roles and responsibilities has reduced uniformed law-enforcement capability. Increased reliance has been placed on roadside technologies, primarily Road Safety cameras, which complement the human intervention afforded by police officers. The introduction of the Highways Agency Traffic Officers service has alleviated this situation to a certain extent but the lack of a rigorous enforcement capability is readily recognised by motorists. As a consequence, there has been a generalised deterioration in driver behaviour and compliance with Regulations and the law, and without any effective counter-balance the tendency is for the common attitude to be towards a continued reduction in driving standards.



2.2.2 The lack of emphasis and focus on the “rules of the road”, as described in the Highway Code, renders it virtually anachronistic in the eyes of many motorists’ and there appears to be an increasing tendency to adopt an “it’s all right for me to do as I feel” attitude. The main applications of the Highway Code appear to be concentrated on a driving licence test requirement and circumstances where a prosecution agency seeks to determine a “benchmark” regarding what is perceived to be a proper code of conduct for driving or using the road. The dearth of refresher learning or contemporaneous information is an important factor and there are no measures to prevent motorists developing “bad habits” that are only detected when prosecution is effected. As an example motorists routinely fail to display driving lights in snow or heavy rain on the basis that they assume that “because I can see, everything is fine” without realising either that they cannot be seen by other road users or that there is legal requirement to do so. The increase in non-UK based drivers has also had a marked affect on driving standards; Regulations and requirements are not inter-changeable even between EU states.

2.2.3 Other than those limited circumstances described above, motorists in general have little knowledge or awareness of the requirements of the Highway Code and drive in accordance with a belief in their own abilities. If, as mentioned earlier, there is no governing regime then those circumstances can only gradually deteriorate over a period of time. If the Government considers the Highway Code to be relevant then it needs to be refreshed to take into account current and predicted road usage and the consequent impact on driving patterns. It needs to be disseminated and generally publicised in a way that it is seen as having direct and immediate relevance on a daily basis. The use of web, “podcast”, “apps”, and other “new” media should be considered in the dissemination of such messages.

### *2.3 Intelligent traffic management schemes, such as the scheme which has operated on the M42, and their impact on congestion and journey times*

2.3.1 Faced with a steady increase in congestion, and a budget that did not allow for the previously planned motorway widening programme, the Highways Agency started to investigate means of “making better use” of their existing network. The keys to optimising the road network were to “sweat” the road space to maximise its capacity and to manage traffic flow over a wider area. This comes down to understanding the flows and pressures across a much larger area so that travellers could be given factual advice about the status of the network plus guidance on the best choice of routes where alternatives were available and having a “toolkit” of measures available to the operators to calm and manage traffic. The overall goal is to control the rises in demand in much the same way as an electricity generating station aims to manage and balance demand and supply.

2.3.2 Intelligent Transportation Systems (ITS) have proven to be extremely effective in a variety of situations across the whole UK road network. However the best examples can be found on the “Managed Motorway” schemes such as the M42 Active Traffic Management (ATM) scheme that has facilitated traffic flow across the region by opening the hard shoulder to peak time traffic, with speed limit controls in place to smooth traffic flow and enhance capacity as and when required. This can be as a response to incidents, or excess traffic flow when intervention is critical to enable the maximum number of journeys to be completed in the most reliable and best possible time. The effectiveness of the operation of the ATM has been demonstrated on a section of the M42 between junctions 3a and 7 over a twelve month period (including the operation of hard shoulder running (HSR) where there had been reductions in a number of areas:

- The average number of personal injury accidents reduced from 5.08 per month before the implementation of ATM to 1.83 per month following the introduction of HSR.
- The average number of casualties reduced from 8.48 per month before the implementation of ATM to 4.00 per month following the introduction of HSR.
- The effect of ATM on emissions from all vehicles was a general reduction of noxious gases and particulates (between -4% to -10%) with the exception of an increase in hydrocarbons (+3%).
- When HSR was operated at 50mph the average traffic speed was 49mph. When HSR was subsequently operated at 60mph the average traffic speed increased by 5mph compared with HSR at 50mph.
- The operation of HSR on the M42 ATM section increased the observed capacity of the motorway by an average of 7% compared to conditions before the implementation of ATM.

2.3.3 An earlier example of active traffic management is the “Traffic Calming” (Controlled Motorways) scheme on M25 in the area adjacent to the M4 interchanges and Heathrow Airport. The complex road layout—including many route mergers and cross-overs—means this location is prone to congestion as well as incidents. Since the scheme was installed the traffic flow has been closely monitored and activated when the sensors detect the necessity to do so. Close regulation of traffic flows means that travellers can routinely expect to complete journeys along this stretch of motorway with more reliable journey times.

2.3.4 Across the UK there are many other examples where ITS has been deployed to help manage traffic flow during peak periods and situations where congestion occurs. Whilst the Highways Agency has established a national standard with Regional Control Centres, many urban systems have been introduced to counter specific problems and as bespoke systems operate to local requirements.

2.3.5 “Ramp metering” is another effective technology that is employed when needed. It uses traffic lights on access slip roads to motorways and trunk roads to regulate the flow of vehicles joining the main road without detriment to either flow. It prevents “stop-start” conditions which is one of the main causes of congestion. The system operates only when needed (peak periods) as it relies on sensors to detect when there is a growing traffic merger problem at that location. However “ramp metering” can sometimes operate in conflict with surrounding roads that are also congested. Currently this technology is confined to the Highways Agency network and as yet has to be fully integrated with LHA systems although a greater extension of UTMC principles to urban, inter-urban and the strategic network could be expected to enable high benefits if a “one network” approach is adopted. The Highways Agency’s Integrated Network Management (INM) project seeks to provide this integration and the “proof of concept” sites have been successful to date.

2.3.6 Variable Message Signs (VMS) are being increasingly deployed across the road network and enable travellers to make “informed decisions” on their journey options as and when incidents occur. This enables congestion to be reduced as motorists select alternative routes thereby allowing the speediest resumption of normal traffic patterns. The improved level of information also helps motorists to understand why and for how long they may be delayed and leads to reduced driver stress—also helping them as they review likely arrival times, etc.

2.3.7 Increasing use of the Internet through website messages is proving to be an additional tool as “real-time” information is readily available to travellers to assist journey planning prior to or during journeys. Data from information-gathering systems linked to intelligent roadside infrastructure can be interpreted by the Highways Agency’s National and Regional Traffic Control Centres and used to communicate specific messages to the travelling public. The recent extreme winter weather conditions have proven to be an excellent example with a significant increase in the number of travellers accessing the Highways Agency website seeking information and advice on the conditions on the network enabling them to review the timing, necessity and applicability of their journeys.

2.3.8 ITS can be described as having a “Cinderella” role in that they are extremely effective behind the scenes but so often fail to receive their due recognition. In these straitened financial times relatively inexpensive ITS systems can return their investment many times over as they operate efficiently 24/7 in the background and enable direct intervention at the most crucial times. If there is to be a genuine effort to resolve and effectively manage congestion then the network must be treated in a coordinated manner by both the HA and LHAs.

2.3.9 There is still a tendency for many road authorities to look at traffic management problems from a zero base and not to take into consideration past investment in UTMC and similar technology. The lack of funding severely inhibits bespoke new systems being commissioned therefore the ITS industry needs to work more closely with LHAs and HA to consider how ITS can be deployed an operated within the new financial environment. For example a consolidation of existing UTC control centres can introduce some of the savings that would enable enhancement to existing systems or new systems being introduced.

#### *2.4 The effectiveness of legislative provisions for road management under the New Roads and Street Works Act 1991 and the Traffic Management Act 2004*

2.4.1 Whilst the New Roads and Streetworks Act 1991 and Traffic Management Act 2004 have improved the management of some activities which regularly disrupt the network, they do not currently mitigate enough of the congestion caused by temporary highway occupation. This is largely caused by the clear focus on road works over all other activities and on enforcement rather than incentivised improvements in behaviour. Both Acts set out strict rules and penalties for management of road and street works, but currently do little to require the provision of quality information to the travelling public. There is a need for the legislation to reduce the focus on enforcement and to focus on the delivery of the Network Management Duty 2005, which provides guidance on the benefits of utilising technology and traffic data to improve the management of road works and information to the public. ITS has a significant part to play in providing and disseminating quality information to the travelling public and could be implemented relatively quickly and cheaply, as it can use information sources that already exist and will require some degree of manipulation and configuration.

2.4.2 The Network Management Duty focuses on reducing congestion through effective network management, but the New Roads and Streetworks Act 1991 and Traffic Management Act 2004 only provides tools to manage road and street works. To effectively manage all the temporary activities which disrupt the network Traffic Managers are reliant on much older legislation such as the Highways Act 1980 for management of a range of activities such as events, filming, crane operations, skips and hoardings. The nature of activities and the impact on the modern congested network is far greater now than when the legislation was conceived and a simpler, more consistent framework for managing the full range of activities would make network management more efficient. Again ITS can be used to alleviate the situation—by using existing systems such as UTMC.

2.4.3 In addition to the above there is value in highlighting the benefits offered by a diversity of Real Time Passenger Information systems; the availability of which allows travellers to be “better informed” of planned and/or spontaneous highway and street works thereby enabling them to plan and/or rearrange their journeys.

## 2.5 *The impact of bus lanes and other aspects of road layout*

2.5.1 Reducing individuals' use of private vehicles and encouraging modal shift to public transport helps to maximise road capacity—a double-deck bus carries the equivalent of 50+ cars but occupies the space of fewer than five cars. However for public transport to be perceived as preferable to private it needs to compete not just on cost but also on reliability and consistency. If public transport is restricted to the same speeds and travel constraints as private vehicles there is no advantage in taking this transport mode. Bus lanes enable public transport to circumvent the delays experienced by private vehicles and help to deliver passengers to their final destination rather than a remote car park. The “my space” (ie, it's not crowded, I can listen to my music, etc) element of car travel is an important consideration and one that needs to be considered by bus operators if buses are to become a real alternative to private cars.

2.5.2 ITS technologies can be used to great effect to support bus lanes. Roadside or in-vehicle equipment can locate, identify and penalise drivers who abuse bus lanes or create hazards by illegitimate parking practices and, provided there is rigorous enforcement of these offences, help to ensure that bus lanes are kept free. ITS systems can be used to much greater effect. The purpose of the bus lane is to allocate separate road space to permitted vehicles and if the bus service is not especially intense there will be long periods when the bus lane is empty and the adjacent lanes are very busy. It is a straightforward matter to fit roadside equipment that instructs vehicles to leave the bus lane (in effect the reverse of the M42 ATM where roadside equipment signals that vehicles are allowed into a lane) and equipment on the bus that broadcasts a signal 10–15 minutes ahead to ask for the bus lane to be cleared. Dynamic signalled systems such as this maximise the capacity and efficiency of the network and the services using it. ITS within buses such as wireless networks, entertainment systems and provision of power supplies for laptops, can also make bus travel more attractive.

## 3.0 COMMENTS

3.1 Vehicle use continues to increase resulting in the existing urban and inter-urban network routinely reaching maximum capacity on a regular basis and, regardless of incidents or collisions, congestion occurs as a consequence. The dilemma that government and LHAs have is to determine the best means to alleviate urban congestion and the associated environmental and safety issues.

3.2 Large-scale investment in new, refurbished and/or replacement infrastructure is unrealistic in terms of cost and environmental impact therefore a more innovative approach needs to be adopted, including some demand constraints and astute management of what we have to make more efficient use of network space. Previous attempts to resolve these problems in urban environments failed primarily because the benefits were not “sold” effectively to motorists and failed to focus on the pertinent issues such as reducing congestion or providing better information. The virtues of replacement technologies were extolled but there was no focus on how to alleviate problems suffered by travellers on a daily basis nor an attempt to identify any benefits that might be accrued.

3.3 It should be acknowledged that there is minimal chance that modal shift will ever be achieved *via* public education measures to influence the rising tide of congestion to a sufficient degree. However, ITS schemes can be effective as they enable traffic flow to remain as close to normal by enhancing the efficient use of vehicles for the majority of a journey, before switching to public transport for the “last mile”. The technologies described previously are a clear indication of the extent and capabilities of ITS and their implementation and supporting these are a diverse range of systems, procedures and policies that are available to national, regional and local agencies and authorities. In broad terms these systems, schemes and policies provide “low-cost” options to unlock maximum potential benefits.

3.4 Government and local authorities have a responsibility to intervene to alleviate congestion, because a failure to do so will only result in individual drivers arbitrarily making their own decisions based on individual interests and in accordance with their decision to drive rather than choose the public transport alternative. As an example recent efforts to prosecute drivers using a “rat run” through a hospital are one indication of how motorists are making their own decisions on what is best for them. The expected “backlash” is likely to concentrate on the lack of efficient traffic management systems that are forcing motorists to take drastic alternative action. ITS schemes can provide dynamic information (pre-trip, in-vehicle or on-road) notifying routes to and the occupancy of “Park & Ride” facilities, dynamically managing road space (including bus lanes), controlling access to localities and enforcing road user compliance.

## 4.0 SUMMARY

4.1 A steady increase in network use in recent years necessitated a number of new initiatives with the underlying principle that management was for a single road link and no matter how well this was done this was found to be insufficient. The key to maximising both the use of the road network and the services delivered to users was to be able to see the flows and pressures across a much larger area so that travellers could be given factual advice about the status of the network plus guidance on the best choice of routes where alternatives were available. Network operators have sought methods whereby they could initiate “traffic calming” measures that attempts to control the rises in demand in much the same way as an electricity generating station aims to manage and balance demand and supply.

4.2 ITS systems have helped to fill that void and have consistently demonstrated a proven track record by offering considerable benefit and assistance to travellers. To illustrate this the answers to the Inquiry's questions re "effective road and traffic management" have included a number of examples whereby ITS deployments have shown their effectiveness. These schemes operate efficiently 24/7 in the background but have direct intervention at the most crucial times. ITS schemes have all too often failed to receive their due recognition or reward owing to their "behind the scenes" profile however in these straitened financial times relatively inexpensive ITS systems can provide substantial return for their investment many times over.

4.3 Innovative approaches are needed when setting out policies. Cost savings need can be made and direct cooperation with commercial providers will provide opportunities to deploy technology-based solutions that can render policies deliverable at economical costs. In addition improved integration of transport modes can also be facilitated by removing barriers and undermining "stove-pipe" cultures between operators and regions.

4.4 A critical element regarding the effectiveness of network management systems is the timeliness of their installation and integration into existing structures. All too often the project evaluation and selection process is restrictive and time-consuming which is further protracted by a limiting and bureaucratic procurement process. Current Treasury/DfT Cost/Benefit calculations work well for a single activity project, but were never designed to cope with the prevailing circumstances where a complex "package" of inter-connected issues need to be addressed and so inhibit the assessment of procurement decisions. This needs to be reviewed and refined as a matter to urgency to enable the self-evident benefits of ITS schemes to be introduced so that they have the desired effect at the earliest opportunity.

4.5 In the absence of a policy to encourage demand management by pricing, shown to reduce congestion while generating funds for improvements, ITS schemes have an important role to play in solving local traffic challenges. Such schemes should take advantage of legacy traffic control architectures and established best practice to provide customised solutions meeting the diverse needs of local communities. Closer cooperation with industry via frameworks and partnering to encourage innovative commercial approaches can encourage the growth of self-funded services, offering drivers greater choices and the scope to make better travel decisions.

January 2011

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### Supplementary written evidence from the Intelligent Transport Society UK (ITS (UK)) (ETM 06a)

#### EXECUTIVE SUMMARY

- Congestion is going to get worse as the economy grows again—we have had a relatively "easy ride" recently. Most congestion is caused by too many people trying to use the same road space at once, not by roadworks or accidents;
- Government intervening and coordinating how traffic moves—but not interfering in all aspects—can reduce congestion, given how it forms when roads approach capacity;
- Many such interventions are met with initial stakeholder resistance—like the M42 Active Traffic Management scheme—but have then shown safety, emissions, and journey time benefits plus cost savings valued by all stakeholders. This was an innovative project where government took the risk of investing in a pilot that proved the viability before moving to wider implementation—government needs to underpin more experimentation like this;
- Almost all the tools required to reduce congestion from new technology and better operations are developed and available, allied with proven tools like SCOOT that link traffic signals—a tool so effective that it has been sold to cities around the world. But these tools desperately need to be joined up to work together and exploited across the UK—not just in a small proportion of local authorities with expertise and remaining budget. Central Government can educate and co-ordinate them to reduce costs to the public purse;
- The public and some parts of government—central and local—are unaware of what is available now. There are many myths about congestion and so this lack of awareness means the wheel is frequently reinvented and investment wasted;
- Drivers have already bought into reducing congestion themselves—there are about four million satellite navigation devices with existing traffic information and many more traffic apps. These same devices can also provide new coverage of data to detect and measure congestion, using technology paid for by drivers themselves, not by government;
- The key is making it all work together and encouraging wide-scale adoption, *via* three steps:
  1. A central Government facilitated template for how to join up the various existing tools—often called an "architecture" but better seen simply as the picture on the box of a complex jigsaw illustrating how it all fits together.
  2. More awareness amongst local authorities of what tools are available, their benefits in clearly understandable terms for elected officials—not technologists—and how to procure them quickly and cheaply.
  3. Exploiting and extending the skills in local government in this area as resources are reduced through combining very local schemes into more regional approaches.

- We cannot remove congestion, but we can intervene to reduce it, and allow the people of the UK and the goods they need to flow as the economy regains strength. We have the technology on both the road and in vehicles and some skilled people but central government needs to push this now as a mainstream—and cost effective—part of traffic management and smarter travel and not “tomorrow’s world” technology.
- Governance changes might be needed—Local and Central government combining resources & skills and regional, rather than local, operations and procurement to reduce costs.

#### HOW TRAFFIC MANAGEMENT CAN HELP REDUCE CONGESTION

Traffic congestion has one of three causes:

- Demand consistently exceeds supply (like tickets for major pop concerts, Wimbledon).
- Demand regularly exceeds supply at certain times (like a PO counter on pension days, or a supermarket at weekends).
- Something temporarily affects demand or supply: an accident, rain, drivers' behaviour, a special event *etc.*

Data provided to ITS UK by Trafficlink—who collect traffic and congestion data across all the UK from their own sensors and traffic authorities—is attached. This shows that most congestion is caused by simply too much traffic. It also shows that congestion change has followed GDP change, but in an exaggerated way, and the UK is at a congestion “tipping point”, where small changes in traffic demand can make congestion far worse. This is similar to driving at half term holidays, where just a small change in demand for traffic in peak hours has a marked impact on journey times.

Traffic management—such as through ATM or simply better information—can contribute to reducing congestion once it has started to build up or even prevent it; Intelligent Transport Systems can additionally contribute to preventing or delaying the onset of congestion by making these small changes in flow or capacity reap much bigger benefits in congestion. The Society’s first memorandum described how traffic speed varies with demand—shown as a picture at the end of this memorandum. The key objective of congestion management is to keep the road network as close as possible to maximum throughput. This is best achieved on a motorway by regulating all lanes in a carriageway to the same speed to deter “lane hopping”. Three techniques are well established for this purpose:

- Variable Speed Limits (pioneered on M25 near Heathrow) to constrain all lanes to the same maximum speed.
- Ramp Metering to smooth the flow of new traffic onto a motorway using traffic signals on the ‘on’ ramp.
- Active Traffic Management, the sequential deployment of variable speed limits, then ramp metering then controlled use of the hard shoulder for a temporary capacity boost.

Such interventions need only be used during the critical parts of the day when demand nears capacity—so they are not interfering with traffic at less busy times.

#### USE OF INTELLIGENT TRANSPORT SYSTEMS (ITS) TO REDUCE CONGESTION

ITS can go beyond traffic management by influencing demand for use of road space. Probably the most direct method for doing this is distance based Road User Charging—either all vehicles or trucks—but we recognise that the Committee does not intend to look into RUC in this study.

There are two well-established ITS techniques for reducing demand or for spreading demand across the day so that peaks are reduced:

- Using real-time traffic condition information and knowledge of historic patterns, so that travellers planning a journey can be nudged away from recognised peak periods, and travellers already on the network can be alerted by a variety of means ranging from traditional radio messages to being offered alternative routes *via* traffic equipped with satellite navigation devices. An example here is that so many people still choose to travel on Maundy Thursday “to beat the rush”, yet it is the busiest day on the network. Freeing up more and more data to provide better information and access to services—and marketing of their existence to drivers—would have benefits simply through changing the times people make journeys;
- Using new sources of data such as GPS equipped vehicles and data from off call mobile phones, combined with modelling and pattern recognition techniques to monitor the flows on a network, so that the conditions likely to lead to congestion can be identified at the earliest possible stage and mitigating techniques can be deployed before the worst situations develop.

#### DEPLOYMENT OF TRAFFIC MANAGEMENT AND ITS BY LOCAL AUTHORITIES

The extent to which LAs use these methods is very uneven and reflects familiarity with the techniques and resource and skills shortages. Very roughly, there are 15 or so authorities who are adequately resourced, familiar

with the state-of-the-art, capable of innovation and mostly self-sufficient. There is a group of 30 or so who are aware of current thinking, enthusiastic about the possibilities for improving conditions, fairly capable but need more help and guidance. That leaves over 100 authorities who are not well aware, are missing the benefits and potentially need a lot of help to get started. In the view of ITS (UK), this is unlikely to change as:

- There is no central Government coordination in this area and a DfT project for documenting and publishing benefits has been stopped (“ITS Toolkit”).
- In many LAs the size and number of potholes dominates transport thinking. The need to manage traffic actively, and to understand the economic and social consequences of a congested network, seem only rarely to be recognised.
- Funds are ring fenced too severely.
- Schemes to improve knowledge transfer and understanding and address skills shortages have been cut.
- Procurement of systems is far too complicated and is not helped by the absence of a National System Architecture to simplify both the purchase of products and their integration—it also favours large systems houses rather than innovative SMEs.
- LAs seem reluctant to combine into larger consortia to share resources and knowledge.

The following comments made by the Chairman of the Audit Commission Michael O'Higgins in announcing the publication of the ‘Going the Distance’—Achieving better value for money in road maintenance’ Report—May 2011 will be of interest to the Transport Committee members. His statements offer an independent assessment of traffic management by local authorities. He said, "Prevention is better than cure, but councils have to consider the safety and insurance risks of damaged surfaces" adding that "roads costs are rising while councils' belts are tightening." However he said that councils could be more effective at using the resources they did have, stating “Sadly we found collaboration between councils to be rare, with too few councils procuring in cost-saving partnerships.”

#### DEPLOYMENT OF TRAFFIC MANAGEMENT AND ITS BY CENTRAL GOVERNMENT

In general central government, as represented by the Highways Agency, has an excellent record of implementing advanced traffic management and ITS schemes—the success of the M42 ATM Hard Shoulder Running concept is internationally recognised—but this leadership is likely to be lost because:

- Central Government seems not to be thinking sufficiently strategically with virtually no long term view of where the transport technology, automotive and telecoms sectors are going. Electric vehicles seem to be the only focus, yet here too the link to congestion is missing.
- Despite the considerable public spending on transport technology there is no central centre of excellence able to advise on technically proven, cost-effective solutions in an analogous way to the NICE’s advice to hospitals and GPs on medical treatments. Such a centre should be an essential complement to the Localism policy.
- There seems to be a reluctance to try new ideas—the fear of an unsatisfactory result in three cases in 1,000 appears to dominate the chances of success in 997 cases. New problems need new approaches and a state of mind that does not try to stop an experiment with the argument that it has not been done before.
- The Government’s wish to ‘stop the war on the motorist’ is recognised and understood but there appears to be an inability to differentiate between intervening and regulating in a sector on the one hand, and coordinating or supporting it by supporting best practice for local decision on adoption.
- The Government procurement process is sluggish and does not encourage innovative solutions nor participation by SMEs.
- There is a need to join up the thinking and actions of different Departments. For example, DCMS and BIS have proposed changing the allocation of radio spectrum, and stopping deployment of FM radio in favour of DAB. But there is no evidence of referral to transport policy regarding the widespread impact on four million satellite navigation devices that use RDS-TMC for live traffic updates—or the considerable cost implications for many millions of motorists forced to purchase new car radios.

#### QUANTIFYING ANTI-CONGESTION ACTIONS

There are recognised measures of success or performance indicators for most of the techniques described in this memorandum. The key requirement is to set a policy objective against which costs and benefits can be assessed and for ITS schemes generally this could be improved journey time reliability, increased network capacity, reduction in vehicle emissions, improving the average traffic speed for a specified time period, cutting average times for specified end-to-end journeys *etc.*

The FREEFLOW demonstration project, part funded by DfT and the Technology Strategy Board, is showing how largely the same technology can be used in London to help smooth traffic, in York to improve bus

compliance with timetables, and in Kent to manage impacts from motorway closures by joining together existing tools.

The question should always be what objective does the local policy require—not what technology. For example TfL have recently shown that by plugging together a number of disparate systems they can obtain a far more intelligent picture of congestion, and so intervene to reduce it. The Architecture they have produced for doing this would form a foundation for all local authorities—appropriately scaled down—with different local policies. The benefits of deploying such a common architecture across the UK would be:

- More management of congestion from existing systems and evidence of the benefits gained to encourage local policy makers to continue investment;
- The ability for the same resources to support more operational interventions against congestion, or the interventions to be undertaken with reduced investment; and
- The exchange of data between authorities and its delivery to other road users by a variety of means taking on board new technologies and supporting traditional channels like radio traffic news.

#### WHY GOVERNMENT INTERVENTION IS ESSENTIAL

The current approach to national traffic management has a strong reliance on each driver behaving in a socially aware and flexible way in full compliance with the spirit of the Highway Code. Such a philosophy has clearly been acceptable and successful in the past but it is not well suited to 21st century road conditions. Getting the maximum output from infrastructure investment requires managing more than a single length of road. A collection of linked roads has to be taken together as a network and the UK has pioneered this approach with initially SCOOT for small area traffic signals management and then UTMC (Urban Traffic Management and Control) for linked groups of networks. The benefits of SCOOT have been included in TRL's evidence [ETM 07] but in summary over 200 cities worldwide use it, saving 19% of delays in London when measured in 1985. Much of the quantified evidence for its use is old, but a recent study showed reduction of active delays with SCOOT were worth around £100K per junction per year to road users, as well as substantial carbon savings.

The responsibility for optimal network management has to be transferred from individual drivers' habits and preferences to an area-wide approach. Sustaining the maximum throughput, and avoiding congestion, on a complex network of roads including multi-lane roads such as motorways, requires active intervention on a wide scale. At a minimum, it requires the delivery of advice to drivers regarding prevailing conditions and expected trends. As traffic flows grow steadily, it increasingly involves regulatory intervention by means of control of maximum permitted speed or access to the network or both.

No single organisation or group of local bodies can deliver this result; the policies and practices have to be set by central Government.

#### REMOVING BARRIERS TO PROGRESS—SOME 'QUICK WINS' TO IMPROVE TRAFFIC MANAGEMENT AND REDUCE CONGESTION

Nearly all the ITS technologies are now well established and there is considerable knowledge regarding their usage either in the UK or easily accessible from research projects or deployments overseas. **So the barriers to their widespread use within the UK are not technical but administrative and financial.** While careful use of ITS products can generate real cash savings, rolling out Hard Shoulder Running or Traffic Management schemes requires 'real' money but the return is 'social' in the form of reduced emissions, better journey time reliability *etc.* Individual travellers or hauliers will then realise monetary savings from reduced fuel consumption or better returns from assets.

To address administrative barriers, ITS (UK) recommends Central Government should:

1. Maximise the productivity of the physical assets we have by:
  - Getting the private and public sectors working more closely together by avoiding the procurement 'Red Tape' and actively encouraging partnership solutions.
  - Reduce red tape also on Network managers so that they can focus on minimising congestion rather than minimising possible consequences of actions.
  - Making more use of Hard Shoulder Running and Variable Speed Limits.
  - Intervening when traffic is such that congestion might occur, but not interfering when it will not, for example:
    - Improving journey times by using variable speed limits in road works when traffic is very light or the workforce is absent, or between, say, 02:00 and 06:00—to permit 10mph more than the "at work time", and
    - Managing mixed traffic separately (as is done with rail networks) by restricting PSVs or HGVs to lanes 1 & 2 only on 3+ lane carriageways and targeted controls at other times.
  - Reducing the numbers of trucks running empty by creating opportunities and incentivising cooperation and sharing.

- Relaxing delivery restrictions so that more are made outside normal business hours with consequent benefit to networks at peak times and using technology to manage new ways of parking enforcement.
  - Introducing more goods consolidation sites to minimise the numbers of deliveries and thus the impacts on traffic flow.
2. Be more experimental: try new or experimental techniques on a small scale; monitor and assess their benefits and costs; then accept or reject them as part of the standard 'tool kit' and notify all highway authorities. M42 ATM is a perfect example of this.
  3. Revise the HA's procurement approach to one based on buying the outcomes of technology, so that it doesn't focus on the process and technology itself but seeks to maximise the business objectives.
  4. Make more use of data available from in-vehicle fleet management and other systems, especially smartphone applications and other devices that road users pay for themselves that can reduce the cost to the public purse of measuring congestion. A large proportion of HGVs is equipped with fleet management systems already, and soon all trucks entering the UK from France will be equipped with GPS tracking as part of the Ecotaxi project there.
  5. The opportunity to 'piggy back' on existing investment (*cf* the Ecotaxi note above) for distance related truck charging in the UK that could impact on congestion has not been taken up with the proposed time only vignette.
  6. Adopt weather-related traffic management policies that intervene when required:
    - Reduce accident and incident risks by 'wet' speed limits on motorways and high quality 'A' roads *eg* 80mph if it is dry 60mph if it is raining as used in France
    - When trunk roads are seriously snowbound, empower network managers to clear just one lane thoroughly for priority commercial traffic
  7. Encourage consolidation and sharing between Local Authorities:
    - Many LAs manage very small areas with sub-optimal resources. There would be service benefits and cash savings if groups of LAs were to combine the investment needed in services that are flexible and scalable—many UTMC authorities have started to use "cloud computing" but there is a resistance in some authorities and the Highways Agency to not having "an asset to own ourselves in case things go wrong"
    - Promote more joining up of the HA and LAs to improve traveller services (*eg* County Council controlled variable message signs should provide information on congestion on nearby Motorways, rather than blank messages as now). This will need to ensure adequate revenue funding streams, to ensure that systems are updated and maintained at a frequency appropriate to developments in traffic and IT.

Above all, provide a central government led template for how existing road assets and technology, new and old, can support interventions to reduce congestion and carbon impacts. Some of the "medicines"—like SCOOT—have long proven their effectiveness, but local traffic managers need to know which new ones to prescribe alongside them and how to make them work locally. So we need the equivalent of NICE<sup>21</sup> for congestion that also spreads knowledge and skills to new people entering the profession.

May 2011

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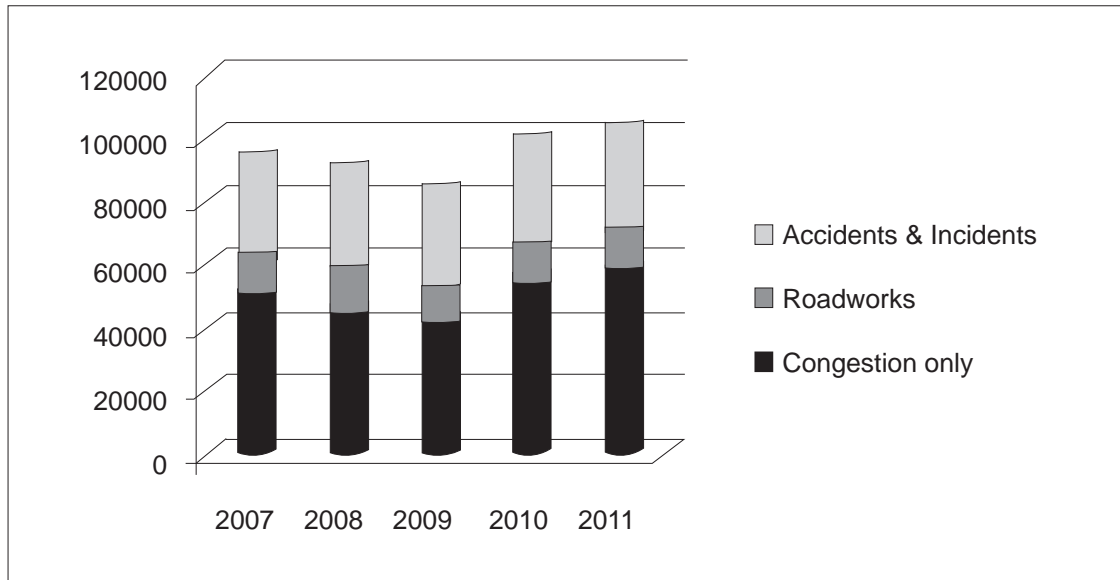
<sup>21</sup> National Institute for Clinical Excellence



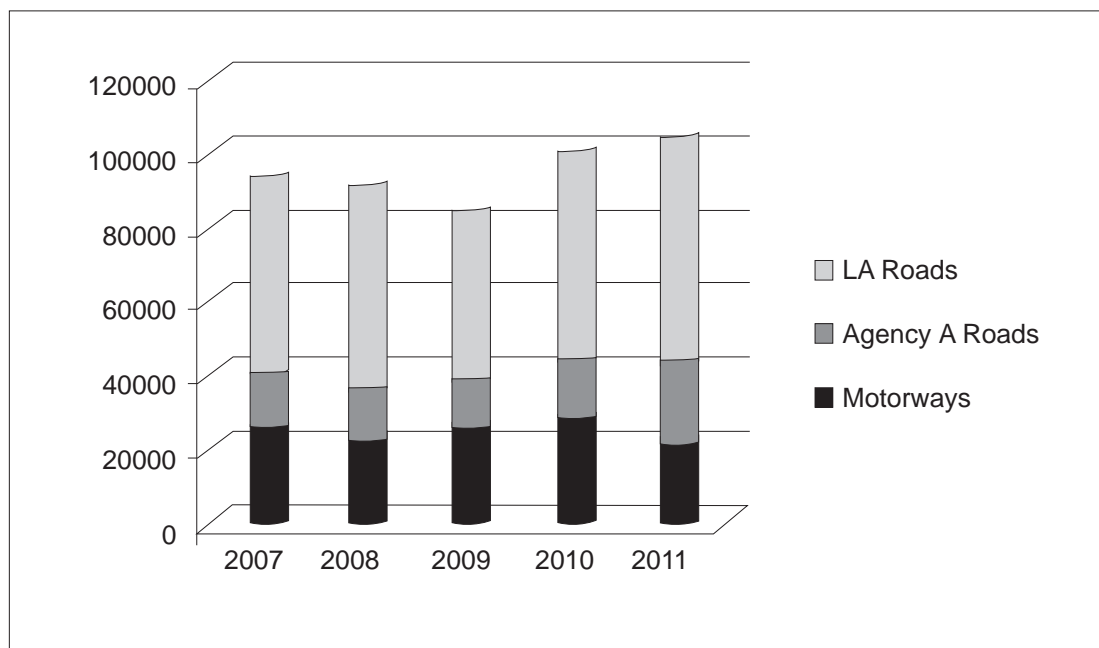
**Annex 1**

**THE CAUSES OF, AND TRENDS IN, CONGESTION ACROSS THE UK—QUARTER ON QUARTER  
2007–11**

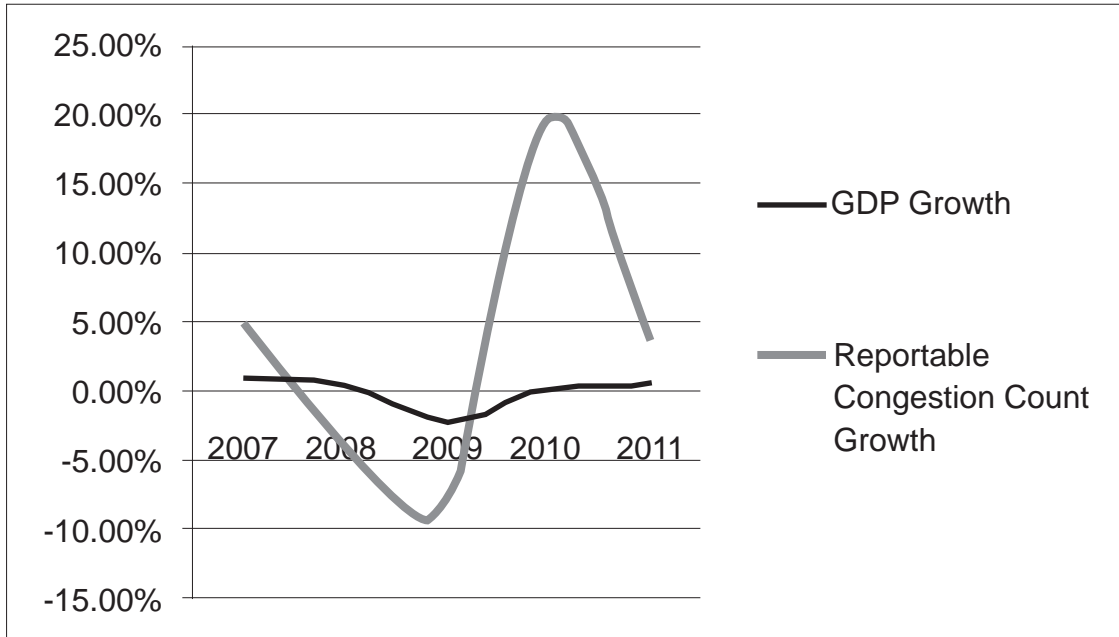
**Q1S 2007–11 REPORTABLE UK CONGESTION INCIDENTS BY TYPE**



**Q1S 2007–11 REPORTABLE UK CONGESTION INCIDENTS BY ROAD TYPE**



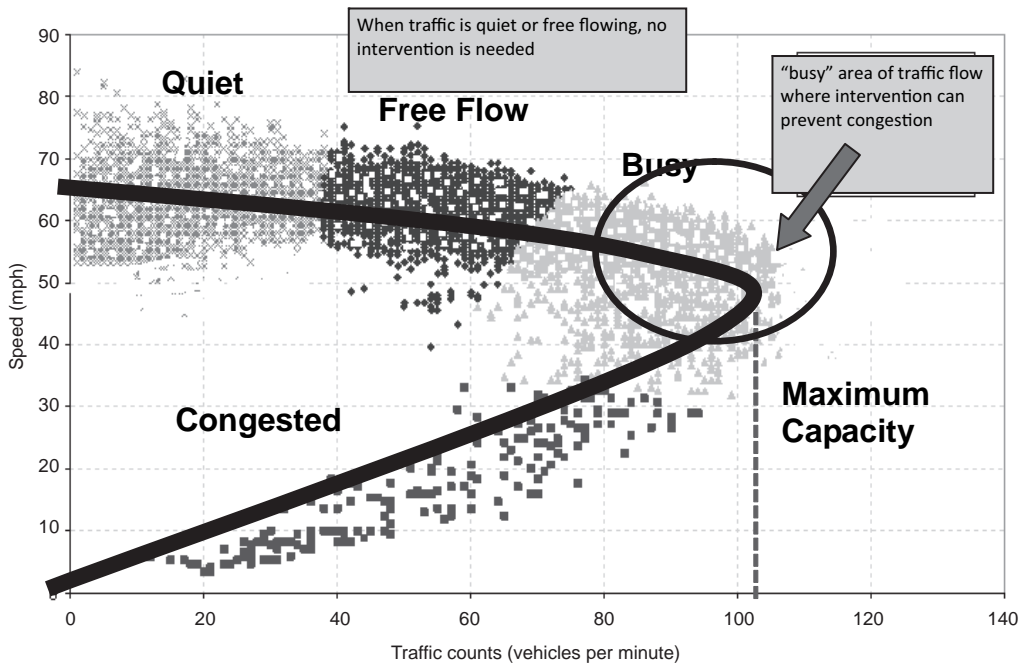
Q1S 2007–11 ANNUAL GROWTH IN REPORTABLE UK CONGESTION INCIDENTS VS GDP GROWTH



Data supplied by Trafficlink for all UK roads for individual numbers of validated reports of congestion—ie traffic jams impacting the public.

Annex 2

THE RELATIONSHIP BETWEEN SPEED AND FLOW



### Written evidence from the Transport Research Laboratory (TRL) (ETM 07)

#### THE EXTENT TO WHICH ROAD USER CULTURE AND BEHAVIOUR UNDERMINES EFFECTIVE TRAFFIC MANAGEMENT, INCLUDING THE RELEVANCE TO DAY'S ROAD USER OF THE HIGHWAY CODE

1. Safety for all road users is the highest priority for traffic management. The second highest priority is to achieve the most efficient roads that enable users to travel at their desired speed or if not, to have reliable journey times. This must not compromise the first priority. To achieve these priorities, new traffic management schemes must be intuitive such that they are adopted safely and appropriately by drivers. The majority of drivers do not take active steps to be trained in use of the road after licence acquisition and the developments in the licensing process (such as hazard perception tests and theory tests) mean that there is wide variety in the level of knowledge about use of the road across the driving population. Drivers become entrenched in their driving behaviour and may not respond to traffic management features in the expected manner. Novel traffic management schemes must therefore be tested to ensure that the predicted behaviours are observed.

2. TRL has conducted numerous studies that investigate how proposed traffic management measures affect driver behaviour. Using the validated, high fidelity research driving simulator, drivers can be presented with new features in a naturalistic yet completely safe manner and their resultant behaviour examined in great detail. This enables traffic management designs to be tested in a manner that may be impractical, unsafe or too costly to test by any other means.

3. Examples of where this process has been applied include studies of the use of high occupancy vehicle lanes, hard shoulder running, single lane tolling, use of emergency refuge areas and behaviour through temporary traffic management schemes. As an example, the results of the hard shoulder running study demonstrated that drivers used the hard shoulder when it was opened as a normal running lane for longer and more confidently when a positive signal (a red X over the hard shoulder) was used to indicate when it was not open as a normal running lane. Similarly, the Highways Agency were provided with information about driver behaviour when entering, stopping within and leaving emergency refuge areas to improve their design.

4. The Managed Motorway concept uses a variety of tools to reduce congestion and improve journey time reliability. By using TRL's driving simulator, driver behaviour in response to different aspects of the Managed Motorway schemes has been tested providing the Highways Agency with confidence in designs that they may choose to implement.

5. The use of the driving simulator to conduct studies examining traffic management measures has enabled the Highways Agency to make efficient, evidence-based decisions about infrastructure developments before they are applied in the real world.

6. The driving simulator was also used in a study for Transport for London to examine the effects of video billboard advertising. The report demonstrated that drivers were significantly more distracted by video adverts and provided reliable evidence for TfL in responding to requests to install such advertising in conspicuous positions near busy roads.

7. The effects of fatigue on driving behaviour result in it being a contributory factor in a significant number of collisions. TRL have conducted reviews for the Department for Transport into the incidence, extent and effects of this problem.

#### INTELLIGENT TRAFFIC MANAGEMENT SCHEMES, SUCH AS THE SCHEME WHICH HAS OPERATED ON THE M42, AND THEIR IMPACT ON CONGESTION AND JOURNEY TIMES

8. Over the past decade, significant advances have been made in the exploitation of on-road technology to tackle congestion on the strategic road network by making best use of the existing road space and managing traffic intelligently. The M25 Controlled Motorways and M42 Active Traffic Management pilots have proven successful at smoothing traffic flows and reducing congestion at hot spots on the network. The success of these schemes has led to a programme of Managed Motorway schemes to be rolled-out across the network in coming years.

9. The M25 Controlled Motorways scheme first introduced variable mandatory speed limits (VMSL) on a motorway. Monitoring and evaluation between 1995 and 2002 found that:

1. Despite an increase in traffic levels, the amount of queuing has reduced and the number of shockwaves has decreased between 1995 and 2002 from typically seven to five in the AM peak. Also noted is more balanced lane utilisation and a reduction in very short headways<sup>1, 2</sup>
2. During the AM peak the total throughput has increased by 1.5% per year and peak 1-hour throughputs have reduced by 1% per year.<sup>3</sup>
3. On non-congested sections, VMSL will increase journey times, but leads to improved speed compliance and journey time reliability.<sup>2</sup>

10. The M42 Active Traffic Management (ATM) pilot implemented VMSL in conjunction with dynamic use of the hard shoulder during periods of congestion or incidents. The scheme was opened for operation in March 2003, with full operation of four-lane VMSL commencing in September 2006. The outputs from a 12-month Monitoring and Evaluation period between 2006 and 2007 were published in 2007<sup>4</sup> and include a comparison

between the operation of three-Lane VMSL between January and August 2006, and the case of no variable speed limits (VSL) prior to construction of the ATM scheme in 2002–2003. The key findings build on those reported for the M25 Controlled Motorway and are detailed in paragraphs 11 to 19 below:

*Impact on traffic flows*

11. During 4-Lane VMSL, traffic congestion and the speed differential between lanes are reduced and there is a higher occurrence of free driving conditions (eg headways over 5 seconds). This indicates that 4-Lane VMSL leads to a lower workload for drivers.<sup>4</sup>

12. 4L-VMSL has improved the distribution of traffic between lanes, which is an indication of a better utilisation of the motorway.<sup>4</sup>

13. The operation of four-Lane VMSL on the M42-ATM section has increased the observed capacity of the motorway by an average of 7% (compared to no VSL) and 9% (compared to three-Lane VMSL). In general across the defined peak periods, analysis shows that there is spare capacity during four-Lane VMSL operation.<sup>4</sup>

14. Speed limit of 50mph was the main contributor to modified traffic flow behaviour that could be exploited towards more efficient flow. 60mph has a rather moderate impact. 40mph is used at high occupancies in interest of safety rather than flow efficiency.

*Benefits to road users: Journey times*

15. Due to the increase in demand and the introduction of variable mandatory speed limits with high compliance, there was an increase in average journey times of 9% between the no VSL and the four-Lane VMSL cases. However, the analysis of secondary indicators has shown that four-Lane VMSL prevented the occurrence of low speed levels and severe congestion. Therefore at the level of demand where it exceeds motorway capacity during no VSL (ie during recurrent severe congestion), four-Lane VMSL will reduce the average journey times.<sup>4</sup>

16. Compared to the four-Lane VMSL case, four-Lane VMSL has reduced average journey times during periods of recurrent severe congestion by up to 24%.<sup>4</sup>

17. Hard Shoulder Running (HSR) at 60mph reduces average journey times by 4% compared to HSR at 50mph. HSR at 60mph has increased average traffic speed by 5mph.<sup>5</sup>

*Benefits to road users: Journey time variability*

18. For 4-Lane VMSL, on average over all weekdays the variability of journey times has been reduced by 22% and 32% when compared to no VSL and three-Lane VMSL respectively.<sup>4</sup>

*Public perception of congestion*

19. User consultation has shown that an extra 7% of users encountered no congestion on the M42-ATM section in 2007 compared to 2003. Further road user surveys conducted in connection with the pilot revealed that 68% felt more informed about traffic conditions.<sup>4</sup>

## THE IMPACT OF BUS LANES AND OTHER ASPECTS OF ROAD LAYOUT

20. Road capacity is limited and effectively shared by road users. At low flows delays to all vehicles are relatively small. However, as flow approaches capacity traffic delays and queues increase. The main limiting factor on capacity occurs at junctions where it is shared by more than one road. Bus lanes, high occupancy lanes, shared use lanes (eg with heavy goods vehicle) all have the same underlying purpose. This is to re-allocate the available capacity to specified “priority” vehicles included in the scheme. It will therefore aim to reduce the delay and increase speeds of these vehicles. Further, of particular importance to bus services, is the improvement to reliability of journey times. One of the main aims of such improvements is the relative improvement of the mode which can increase use, ie bus patronage.

*Effect of bus lanes*

21. An important aspect of a bus lane is the distance it is set back from the junction: ie the distance between the end of the bus lane and the junction’s stop line. If it is too close to the junction then although buses will gain a journey time advantage, other traffic will be greatly delayed owing to the reduction in junction capacity, and this can be counter-productive as if the non-priority traffic queue increases beyond the start of the bus lane, it can prevent buses using the lane. Too far back and the bus lane will result in little benefit for buses. There is therefore a balance to be found.

22. The results in paragraphs 23 to 27 have been collated from previous research to indicate the ability of such schemes to deliver benefits to priority vehicles and their effect on other non-priority road users. Reference 7 was a literature review on the subject.

23. Three major changes were made to the road network along Shepherd's Bush Green Road in 1993, including a bus lane, pre-signals and a bus gate. Afterwards, buses mainly ran closer to their timetables over the section of the routes surveyed, and there was less variability in departure times. Improvements of up to 55.3% (1.5 minutes) in the difference between actual and scheduled departure times were observed.<sup>6</sup>

24. Bus lanes do not necessarily deliver observable improvements to bus journey times or reliability. A scheme in Birmingham found no significant improvements in bus arrival times at their destination, or improved regularity in bus headways were found.<sup>6</sup>

25. Overall, bus priority schemes in the United Kingdom have previously been found to have only managed to reduce bus journey times by one or two minutes, and have not made them faster than travelling by car.<sup>6</sup> Changes in patronage due to a bus lane alone were found to be generally small in a literature review. In six references where it was not affected by other factors the lane only stemmed an overall decline in two cases and increased patronage by 5–6% in three others.<sup>6</sup>

26. However, large scale bus priority measure along a corridor have been found to create journey time improvements. A scheme on the A47 Hinckley Road in Leicester introduced bus lanes over 4.5km.<sup>7</sup> The bus priority measures had a minimal effect on car journey times; during the morning peak they dropped by 5% in the inbound direction and during the evening peak they increased by 2% in the outbound direction. But there were significant improvements in bus journey times; a 22% drop in the AM peak (from 23 to 18 minutes) and 23% in the evening. Limited stop park and ride buses can cover the distance to and from the city centre nearly one and a half minutes faster than a car.

27. A combination of bus improvements can have a greater effect. The West Midlands Bus Showcase included introducing bus lanes in addition to increasing service frequency, improving bus stops, introducing real time information and strict enforcement of stopping restrictions. The effects of these enhancements have varied between routes, but bus patronage increased a maximum 38%, and there was a 5% mode shift from the car.<sup>8</sup>

#### *Shared use of bus lanes*

28. Permitting heavy goods vehicles into two bus lanes in London had no effect on bus operations or safety: the conditions observed were low bus flows (up to 20 per hour) and moderate heavy goods flows (up to 60 per hour) and 55% of link capacity in use. However, many heavy goods vehicle drivers did not use the lane as it did not offer a journey time saving.<sup>9</sup>

29. Motorcycles were permitted to use bus lanes in London. This should permit them the same benefits as buses. The scheme was monitored, and it was found that bus speeds were unaffected and motorcycle speeds increased, and there was an increase in the percentage of motorcycles exceeding the speed limit. Also, collisions involving motorcycles and cyclists had increased, which were generally with cars and through poor observation.

#### *Other aspects of road layout (with respect to buses)*

30. Research into the effect of removing bus lay-bys found that buses were able to stop close to the kerb at virtually all stopping events at some sites, and this was accompanied by fewer passengers needing to step into the road when boarding and alighting. Passengers were able to board the buses faster. Fewer buses were hemmed in by traffic and overall the reduction in bus delay at a stop ranged from two seconds to four seconds depending on traffic flow. The variation in the stop time of buses was also reduced.<sup>10</sup>

31. Research into introducing bus boarders found the percentage of buses stopping close to the kerb increased, and resulted in significantly fewer passengers stepping into the road when boarding and alighting.<sup>10</sup> There was a slight reduction in boarding and alighting times of 0.1 seconds and fewer buses were hemmed in by general traffic at the full width boarder sites. Overall bus delays were reduced by 1.3 to 1.8 seconds.

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<sup>10</sup> TfL (2006). Bus stop design guidance.

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January 2011

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### Written evidence from Surrey County Council (ETM 11)

We are grateful to the Transport Committee for investigating effective road and traffic management. Surrey County Council believes that this is one of the most important tools we have to tackle congestion, reduce the impact on the environment and make journeys easier for both the public and businesses.

Surrey's highway network is extremely busy. The county contains a long stretch of the M25, as well as parts of the M3 and M23. We experience a large amount of through traffic, especially vehicles bound for London, Heathrow and Gatwick, all of which are close to our borders.

Despite these pressures, traffic levels in Surrey have barely increased over the past decade. We seem to have reached a level of traffic saturation which is getting appreciably neither worse nor better. The advantage of this situation is that Surrey residents and employers are becoming increasingly sophisticated in the way that they travel and do business. We have high levels of working from home and flexible tele-working. We know when the busiest periods occur and generally we aim to avoid them. Surrey residents use trains and buses more than the average.

The disadvantage of having a saturated road network is that we do not have spare highway capacity to deal with unforeseen problems, such as accidents, road-works and poor weather. On a "normal" day, our road network works tolerably well. But when problems occur they can have long-lasting consequences and cause very long delays. A blockage or a lane closure on the M25 can mean that an unsustainably high level of traffic often diverts onto local roads.

The county also has a number of congestion hot-spots where antiquated and overloaded road layouts cause bottlenecks in the highway system. For example, there is considerable peak time congestion at most of the junctions with the M25. Most of the county's small to medium sized towns do not have bypasses. As a result, each town can suffer from high levels of congestion due to the high level of through traffic flowing through the centre of town. We also have severe congestion problems around some of our level crossings.

Because of this, the issue of congestion is one of the top concerns of local residents and businesses. However, we do not believe that building more highway capacity is, on its own, the right solution to the problems of congestion. A new road or the widening of an existing road can generate considerable additional traffic and put more pressure on the surrounding road network. Road building needs to be carefully assessed and targeted, for example to ease bottlenecks without generating higher levels of traffic and therefore congestion.

Our policy approach to transport is that journeys must be effective, safe, sustainable and reliable:

- **effective** transport means transport that succeeds in getting people to their objectives, whether this is to travel to work, school, leisure or shopping. We must not forget that transport is, first and foremost, about allowing and helping people to meet their travel needs;
- **safe** travel is important to reduce the number of people killed and seriously injured on our roads;
- **sustainable** transport emphatically does not always mean a modal shift away from the car. For many journeys, the car remains the most practical means of transport. We do encourage mode shift where journeys can be made by alternative means, such as when short journeys could most sensibly be made on foot or cycle. When car travel is unavoidable, we are working to encourage people to make shorter journeys, to travel outside the peaks and to choose more efficient vehicles, including electric cars; and

- **reliable** transport is transport that is relatively consistent, when journeys take approximately the same amount of time on different times. This enables our residents and businesses to be able to have faith in the transport system and to plan their lives more effectively. This approach places much more emphasis on journey time reliability than on speed of journeys. We believe that our customers would prefer journeys that they could rely on rather than infrastructure improvements which shave a few seconds off their journey time.

Surrey's approach to congestion is therefore to look for a mix of traffic management solutions. This includes demand management, integrated land use & transport planning, network management, traffic management, freight & goods management and behavioural change.

Our activities are coordinated by a dedicated Network Management Information Centre, located in Leatherhead. We would be delighted to welcome the Transport Committee to visit this centre and see first-hand how we use technology to manage traffic.

We place a high priority on proactive network and traffic management to deliver reliable journey times and assist the network to recover from major disruption. Not only does this approach help to keep traffic flowing, but it can also be used to manage demand from other network users such as buses and pedestrians. At the same time, it provides up-to-date information to both those already travelling and those planning their journeys, whether this be deciding either when to leave for the commute home or when and how to travel for irregular or one-off trips.

Key to this approach is proactive partnership working, and Surrey is fortunate to already have good working relationships with other agencies such as the Highways Agency and the Police. Transport is coordinated by Transport for Surrey, an innovative voluntary partnership to bring together different transport partners with the common interest of improving transport in the County.

Surrey County Council has been working with the Department for Transport and the Highways Agency on a demonstration project known as Integrated Demand Management. This project was designed to coordinate the traffic management of the national road network (principally the M25) and the corresponding local road network. This involves aspects such as:

- real-time monitoring of the whole network;
- a more complete shared picture of the whole network in terms of road works, events and incidents, and congestion and performance;
- the development of operational processes and plans and strategies to control traffic and to inform network users to optimise available capacity; and
- a common agreement as to how the two organisations will work together to manage the network proactively.

If successful, this demonstration project would deliver a low-cost toolkit of traffic management measures which could be applied more widely across the country.

At the time of writing (January 2011), we do not know if this project has secured ongoing funding following the Comprehensive Spending Review.

*January 2011*

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#### **Further written evidence from Surrey County Council (ETM 11a)**

As with our policy on traffic management, Surrey County Council believes that we should work with and not against motorists. So our road safety policy focuses more on helping people to be safe rather than on penalising them for unsafe driving. We also work closely with Surrey Police to tackle inconsiderate driving. This includes tackling actions which might not be unsafe but which do annoy or cause distress to residents—for example inconsiderate parking.

A couple of years ago we introduced an initiative called DriveSMART as a joint programme with Surrey police. This aims to improve safety and reduce inconsiderate driving mainly by education and encouragement, although we will take enforcement action when justified.

DriveSMART includes poster campaigns and advice on good driving. We will carry out community and school speed watches where we work with local people and school children to target unsafe driving. It can be very sobering for an adult to be asked by a 12 year old why they were speeding past a school.

More information can be found on our website [drivesmartsurrey.org.uk](http://drivesmartsurrey.org.uk).

*June 2011*

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### Written evidence from ADEPT (ETM 12)

The House of Commons Transport Select Committee is looking to examine how roads and traffic can be better managed in order to reduce congestion, encompassing both the major road network and urban roads, written evidence has been requested on:

The prevalence and impact of traffic congestion and likely future trends:

- The extent to which the Government and local authorities should intervene to alleviate congestion and the best means of doing so.
- The extent to which road user culture and behaviour undermines effective traffic management, including the relevance to today's road users of the Highway Code.
- Intelligent traffic management schemes, such as the scheme operated on the M42, and their impact on congestion and journey times.
- The effectiveness of legislation provision for road management under the New Roads and Street Works Act and the Traffic Management Act 2004.

#### ADEPT RESPONSE

The existing highway network has a finite capacity and so the projected growth of population and vehicle ownership in future years must inevitably lead to concerns about traffic congestion given the limited opportunity to build new roads. With this background any move to reduce congestion would have to be grounded in a strategy that linked better use of the existing road space, the use of technology to manage traffic and inform travellers, improved driver behaviour and continued encouragement of modal shift and changes in working practices. On top of this there must be greater collaboration between Local Highway Authorities and the Highways Agency to improve the resilience of the total road network in collaboration rather than isolation.

One key area for the management of congestion is proper and appropriate consideration during the planning process. Where the two tier structure of Local Government exists it means that the Local Highway Authority is only a statutory consultee in the planning process. The judgement regarding the balance between the value of the development and its impact on the local highway network is with the Local Planning Authority. The Traffic Management Act places a duty on the Local Transport Authority to ensure the expeditious movement of traffic but this duty does not lie with second tier authorities where they exist. Consideration should be given to investigating this relationship and a possible role for the Traffic Manager, a statutory role in the Traffic Management Act, in having the power of veto on a planning permission or, alternatively ensuring that the Traffic Management Act Duties apply to Planning Authorities as well.

Turning to the existing situation, anecdotal evidence suggests that for the majority of road congestion is a time limited impact based around either peak demand for road space or the impact of planned or unplanned events, although there are also seasonal effects in those areas that are popular tourist destinations. However, this congestion comes at a significant cost to UK plc and society needs to work together to find solutions that can, at the very least, limit these implications. Work undertaken in Manchester and in Cambridgeshire to look at the benefits of charging for the use of road space at critical periods of the day showed significant potential benefits in terms of controlling congestion, however, the public and political will has not been there to look at revised funding models that would support this approach. The real challenge is that to move to a charging model without increasing the perceived contribution to highways through such things as road tax, fuel duty and VAT would require a different tax model that recognises the contribution that these taxes make to other services that the community enjoy.

Government and local authorities need to play a key role as community leaders help alleviate congestion. This may take the form of using professional experience to improve the use of road space through solutions such as innovative junction design, using lanes in different directions to recognise and mitigate tidal flows into and out of major conurbations, managed motorways, and enhanced provision for specific modes of transport such as buses or cycles. It is important to recognise that no one solution fits all communities and environments and so the Government and local authorities need to take a lead in identifying what the most appropriate solution is for any given situation.

For planned events, such as roadwork's the key element is timing. Careful consideration of the impact of any reduced capacity on the network and the timing of that reduced capacity is key to limiting the impact on the travelling public. There are already many good examples of how the Highways Agency, local authorities and Statutory Undertakers adjust the timing of their works to limit the impact on the network and the use of tools such as lane rental has helped develop this line of thinking. However, there is still further work that could be done in this area to ensure that the impact of works on the traveller is fully considered in the timing and duration of works.

For planned events off the highway, such as football matches or concerts, detailed traffic management plans have been in existence for some time and the general practice of mitigating the impact of those travelling to and event on the rest of the travelling community through plans and management on the day has been successful in the majority of cases. The cost of managing traffic, in all its guises, for such events is not small and should be carried by the event itself rather than passed onto the Police and the Highway Authority.



Turning to unplanned events there is a need to significantly reduce the time over which such unplanned events are affecting the network. Clearly, emergency events such as gas leaks need to be addressed as a matter of urgency and the statutory undertaker needs to ensure that their equipment is made safe and does not present further risk to the public. But the removal of broken down vehicles and the impacts of road traffic accidents on the rest of the travelling public need to be examined. The current approach identified in the Police Investigation Manual results in roads being shut for considerable periods of time while the Police investigate a crime scene. Clearly, it is important that the Police are able to collect all the evidence they need but there are examples of technology being used to reduce the time that the travelling public are inconvenienced which need to be considered further. We need to review how other countries deal with unplanned incidents such as breakdowns and road traffic accidents to see if we can reduce the time that the network is restricted. The Highways Agency is already undertaking some actions such as using screens in an attempt to reduce the impact of rubber necking at accident sites.

In the urban environment driver behaviour can have a significant impact on congestion. Inappropriate parking, especially around junctions causes difficulties across the country. As well as causing difficulties for larger vehicles such as buses there is also a safety issue with the potential difficulties caused to fire engines and similar. Whilst this issue could be addressed by the implementation of many Traffic Regulation Orders and the associated enforcement improved driver behaviour and adherence to the advice in the Highway Code would be a cheaper solution.

Many of the driver behaviours that cause congestion are the result of impatience and haste. The use of average speed cameras on the A14 between Huntingdon and Cambridge has had a marked effect on both the congestion and the accident rate on that road and variable speed limits on the M25 has been similarly successful. Impatience at traffic signals and roundabouts are equally damaging in the urban environment and the potential solution to this is the delivery, by the Department for Transport, of the power to enforce moving traffic offences to local authorities. This is a key element of the Traffic Management Act that has not been implemented but could have a significant effect on congestion in urban areas.

As technology moves forward more work must be done in this area to assist drivers in their decision making. Whether it be checking proximity to adjacent vehicles to avoid collisions, enhanced congestion advice or the use of data to help travellers change their mode on specific journeys based on real time comparative information. There is already significant investment in information technology for the strategic road network but there are real opportunities to look at the "last five miles" of journeys and see if this is an area where congestion can be managed. As well as improving reliability for individuals journeys and for such things as just in time deliveries work in this area could have a significant impact on bus punctuality and, therefore, assist with modal shift.

In general terms the Traffic Management Act has been a successful piece of legislation, although it has not been cost neutral to Local Highway Authorities as originally envisaged. It has highlighted the importance of managing congestion and has been a vehicle that ADEPT members have used to encourage the sharing of best practice. The take up of Permit Schemes, to better co-ordinate works on the highway has not been universally taken up. Authorities, such as Kent, have made good use of the opportunity but the investment required to implement these schemes, the real cost to all involved and the success derived from them needs to be properly reviewed.

Local Highway Authorities need to ensure that any emergency works, undertaken by either a Statutory Undertaker or themselves truly is emergency works rather than an attempt to bypass the road space booking and works co-ordination system. In addition Statutory Undertakers and Highway Authorities need to work closely together to ensure that opportunities to minimise disruption through joint working and through enhanced reinstatements are not missed.

In summary, the ability to have reliable transport links is a crucial enabler to a successful society. The cost of delay and disruption on the highway network is significant and is carried by the tax payer either through increased prices or reduced quality of service. The understanding of the cost of congestion amongst professionals has increased significantly over the last decade and working practices have adjusted to minimise the impact of planned events and to encourage modal shift and changing working practices, such as home working and flexible hours. There is still some work to be done in reducing the impact of unplanned events on the network and in particular the significant periods of time that a road can be closed as a result of a serious or fatal personal injury accident. The use of technology needs to be further investigated to ensure that its full potential is realised both as a decision making tool both before and during a journey. It is important that congestion that affects the last five miles of a journey is considered as further solutions are developed. The use of technology can play a very important part in this, particularly in medium to large conurbations but this will require investment and new models to deliver that investment need to be investigated further.

Finally, there are some simple actions that everybody can take to both improve the health and well being of the community and reduce congestion. Encouraging walking and cycling for short journeys, varying opening times for shops, businesses and schools, changing the way appointments are organised at Hospitals would all make their own small contribution to reducing congestion within urban areas. However, experience has shown that linking these sorts of changes to the benefits of the community with the individuals needs can be difficult

and in many communities across the country we are yet to find the level of congestion that would lead to such an approach.

January 2011

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### Written evidence from the Cambridge Cycling Campaign (ETM 13)

Our main points are:

- When defining the term traffic, all traffic should be considered, including pedestrian and bicycle traffic as well as motorised vehicles of varying sizes.
- Fear of cycling in traffic significantly reduces the mode share of cycling.
- A prolonged and significant investment in cycling infrastructure in urban and suburban areas can significantly reduce congestion in these areas.
- Bicycling is a suitable transport mode for urban and suburban journeys of up to at least 10 km. Infrastructure that supports such movements must be considered in all road schemes.
- Prohibition of motor vehicle parking in mandatory cycle lanes is currently not properly enforced. Enforcement is essential if cyclists using such lanes in urban and suburban areas are to be confident about their own safety.
- When a collision occurs between a motor vehicle and a bicycle, the driver of the motor vehicle should be made liable on the grounds that they are operating a much more dangerous machine which they should control.

#### INTRODUCTION TO CAMBRIDGE CYCLING CAMPAIGN

Cambridge Cycling Campaign is a charity that provides a voice for cyclists in Cambridge and the surrounding area. We lobby for better and more convenient conditions for cycling, safer roads, and more people on bikes. We work closely with the local transport authority, Cambridgeshire County Council, and the local city and district councils to ensure that the views of knowledgeable cyclists is considered during transportation improvements.

Cambridge has approximately 40,000 regular bicycle riders in the area, with mode share of towards cycling increasing while that for cars within the city centre has been decreasing. This has also been associated with significant investment in cycling in the area, and restraint for private motor vehicles. For example, a journey that would take just five minutes on a bicycle can take 15 minutes in a car, without considering the time required to park the vehicle. Bicycle journeys from most surrounding villages are faster than bus services and car journeys in rush hours. The recently improving bicycle infrastructure has therefore been encouraging drivers out of motor vehicles and into the cycle lanes. Limited city-centre car parking facilities and an excellent park and ride system also encourages modal shifts from private motor vehicles. Cambridge has five multi-storey car parks in the town centre, two of which have a complete floor dedicated to bicycle parking. The only way to valet park a vehicle in Cambridge is to cycle to the Grand Arcade bicycle park and use the valet bicycle parking facilities. Cambridge railway station has approximately 1,000 cyclists using either the limited cycle parking facilities or who transport their bicycle on a train to their destination, a significant share of all passengers arriving at the station.

The Committee has asked for a number of points to be considered in this memorandum:

- the extent to which the Government and local authorities should intervene to alleviate congestion and the best means of doing so;
- the extent to which road user culture and behaviour undermines effective traffic management, including the relevance to today's road users of the Highway Code;
- intelligent traffic management schemes, such as the scheme which has operated on the M42, and their impact on congestion and journey times;
- the effectiveness of legislative provisions for road management under the New Roads and Street Works Act 1991 and the Traffic Management Act 2004; and
- the impact of bus lanes and other aspects of road layout.

These points will be considered below:

#### *The extent to which the Government and local authorities should intervene to alleviate congestion and the best means of doing so*

Many other countries, most notably the Netherlands, Denmark, Northwestern Germany, but also Finland and Sweden, have both significant investment in bicycle infrastructure and high modal shares for bicycles. Denmark for example has a 35% modal share for bicycle traffic into Copenhagen. It should also be noted that Denmark has the least traffic congestion. It is our hypothesis that these two pieces of information are connected. Safe bicycle infrastructure, as typified by the Dutch and Danish infrastructure models, enable direct routing of

bicycle traffic through urban areas while minimising conflicts with motorised vehicles. This will be a recurring theme through this memorandum.

We also will suggest that removing motorised vehicle traffic lanes and replacing them with cycle lanes will actually alleviate congestion. An example of this in Cambridge would be the Hills Road railway bridge. A few years back, this was a four lane road with pedestrian footpaths on either side. Bicycles were expected to cycle up the inclines with the motor vehicles that were legally able to travel at 30 mph. During recent road works, an experimental scheme was implemented to remove one of the traffic lanes in each direction on the upward slope and replace that lane with a cycle lane. The safety for bicycles using the bridge significantly increased and the scheme caused no traffic congestion. This scheme is currently being engineered into the completed bridge structure.

It is therefore suggested that space within the road environment should be taken away from motorised road vehicles and reallocating this space to bicycles will allow the latent demand for efficient and simple bicycle journeys. This could be done by narrowing traffic lanes and reallocating that space to cycleways, which also has an additional benefit of slowing traffic speeds. This could also be done by building dedicated segregated cycleways physically separated from fast flowing traffic. An example of this would be the cycleway alongside the Cambridgeshire Guided Busway which has already significantly improved the safety of children safely cycling to school, avoiding the dangerous A14 interchange at Histon that has no provision for cyclists crossing. However it should be cautioned that only high quality infrastructure will enable this benefit. Low quality cycling infrastructure, including very narrow cycle lanes, cycle lanes that lose priority to parked cars, or to crossing traffic at junctions is mostly a waste of money. For example, the Jane Coston cycle bridge from Milton to Cambridge, across the A14 has a segregated cycleway from the bridge to the Cambridge Science Park that has priority over side junctions including industrial facilities with significant heavy goods vehicle traffic. Unfortunately, this is still let down by a single older junction that gives priority to a car-park for an office building over the cycleway.

It should also be noted that just building new high quality cycleways will not increase bicycle modal share without other investment in associated facilities. These include bicycle parking, at least on par with the spaces available for motorised vehicles and in high pedestrian trafficked areas. These should therefore be placed as close to the entrance to shops as possible, and not around the back of the store where bicycle theft would be more likely.

Bicycle parking should also be of high quality with Sheffield stands or similar placed sufficiently far apart from each other, and sufficiently far away from walls and roadways that pedestrians can pass safely and bicycles can be manoeuvred into position quickly. New housing should have space for parking bicycles, preferably as close to the front door as possible. Other buildings should also have minimum bicycle parking requirements. For example, doctors offices and hospitals.

Research has shown that people who regularly exercise, for example by bicycling to and from school or work, can significantly increase not only their productivity but can also reduce the number of days they are sick. Building cycling infrastructure also has very good cost benefit ratios. For example, the Cambridgeshire Transport Innovation Bid estimated the cost benefits for building the proposed bicycle infrastructure as returning £6 to the local community for each £1 that was spent. The early Cycling Demonstration Town results also show significant benefits. These benefits comes from increased health, increased productivity and reduced traffic congestion in the area.

*The extent to which road user culture and behaviour undermines effective traffic management, including the relevance to today's road users of the highway code*

At the moment, when a bicycle hits a car the bicycle rider will typically come of worse whilst the car driver will typically have no injuries. A car driver today accepts that they hold no liability if they hit a bicycle. Various campaigns suggest that bicycle riders pay no road tax and therefore should not be on the road, even though there is no such thing as a road tax today. We believe that consideration should be made for "Strict Liability", to be introduced to UK law. This could have significant beneficial changes to the behaviour of the average motorised vehicle drivers, especially when operating these vehicles near bicycles. This would also have a similar behavioural change for bicycle riders being aware of their operating risk when near pedestrians. If this consideration is ignored, then bicycles will be further marginalised and the traffic builds up thereby reducing the perceived safety of using the bicycle and therefore reducing the modal share of bicycling. This will only therefore increase traffic congestion that no level of traffic management would be able to prevent.

We believe that the fact that the Highway Code is written by the Driving Standards Agency places the emphasis towards only motor vehicles within this publication. We would therefore suggest that the Highway Code be moved to a different agency or government department to remove such bias.

*Intelligent traffic management schemes, such as the scheme which has operated on the M42, and their impact on congestion and journey times*

The A14 average speed cameras has been a great success in reducing the traffic problems on this section of road. However, in previous years, this road has had so much traffic use it because for some locations it is the only way of accessing the settlement. For example, Bar Hill is a village just north of Cambridge, within easy

bicycling distance from Cambridge. It is only accessible by a six lane wide high-speed section of the Trans-European-Network called the E24, known locally as the A14. This section of road therefore provides part of the strategic network for both north-south traffic as well as east-west traffic. Interestingly there is provision for cycling along this section of road. At each junction there is a bicycle by-pass, requiring a bicycle rider to stop, wait for a gap in the traffic, and then cycle through the junction before returning to the inside lane of this three lane road with a 70 mph speed limit.

Unsurprisingly there is very little bicycle traffic from this village, even though thousands of people bicycle from similar villages in other locations where bicycle infrastructure exists. This section of the A14 also has significant traffic congestion and therefore journey time issues. A significant reduction in motorised traffic trips could be achieved if a high quality cycleway was constructed between this village and Cambridge. Other similar roads in the area would also benefit from parallel high quality cycleways; for example the A10 both north and south of Cambridge.

It is therefore suggested that no major road scheme be designed or built without high quality “non-motorised user” routes, including cycleways parallel to the route, and cycleways at all crossings. These crossings should not just be a non-signalized junction where cyclists are expected to dismount, walk their bike across a stream of high speed traffic. As an absolute minimum, rights of way that have been severed should be restored by use of such high quality safe crossings.

#### *The impact of bus lanes and other aspects of road layout*

Bus lanes are an expensive allocation of road-space, sometimes at the detriment of other road users. For example, the installation of a bus lane in Milton Road, Cambridge, removed cycle lanes from both sides of the road. For example, in Cambridge, more people travel by bicycle than travel by bus, yet there are significant lengths of bus lane that have been built.

Unfortunately where bus lanes have been built, bicycles are expected to share this lane with the bus. For some bus lanes where significant numbers of buses use the lanes as well as bicycles, the buses cannot overtake the bicycles safely when the car traffic in the associated traffic lanes is stopped. Therefore buses are either forced to move at the speed of the bicycles, or they risk overtaking the bicycles too closely. It is therefore suggested that where bus lanes are built, separate bicycle lanes also be provided such that overtaking buses cannot impact on the perceived safety of the people using bicycles.

Bicycle lanes that just end, typically at the most dangerous locations, are a significant problem for an urban bicycle rider. Bicycle lanes and cycleways must be continuous to be effective. An example of this would be at Histon Road on the approach to the town centre of Cambridge. In some sections there is a very wide carriageway with a narrow cycleway along the side. This only helps to encourages cars to travel faster than the 30 mph speed limit, and a speed camera is located at this location because of poor road design. As cars approach the junction with Gilbert Road, two general traffic lanes are provided and the cycle lane disappears. Bicycles are obviously considered to be unimportant at this location.

Unfortunately, most bicycle crashes between motor vehicles and bicycles occur at junctions, in exactly the locations where bicycle infrastructure if provided just disappears. It is likely that these two facts are connected. It should also be noted that the right turn only lane at this junction has very few traffic movements, and therefore the road space could be easily reallocated to provide a cycle lane through this junction. It is therefore suggested that continuous coloured surfaces be provided through all junctions. This would clearly provide virtual bike lanes through junctions, ie something that emphasises the possible presence of bikes.

Another problem with traffic junctions is that most road traffic engineers attempt to increase the volume of motorised vehicles through junctions, because of the fear of traffic congestion. This will actually only increase traffic congestion as there is no alternative being provided. If the benefits of cycling are considered, then the number of people moving through the junction should be optimised, and not necessarily the number of motor vehicles. Bicycles take up significantly less space, and can move through an urban environment quicker than any other form of transport, public or private. They should therefore be given equal or greater consideration when designing road layouts and traffic signal timings.

It should be noted that each time a cyclist is forced to stop at a side junction or toucan crossing, they waste energy that is the equivalent to extending it by 100 metres. For example, a journey of 2 km that has just ten junctions that must be stopped at would use the equivalent energy required for a 3 km journey.

For example, along Kings Hedges Road there is a two lane road, and a guided bus route and a high quality cycleway. Unfortunately, at each of the entrances to the development to the north of the cycleway, the bicycle users are expected to come to a complete stop and press a button to activate a toucan crossing. This is because the road traffic that is entering the development is given a green light continuously except when a guided bus is crossing or a pedestrian or cyclist has activated the toucan crossing, or when turning traffic from the opposite direction is active. This significantly reduces the volume of people that this junction can cope with. The two-way shared use pedestrian and cycleway at this location is over four metres wide and could have a capacity significantly larger than the parallel roadway, yet is constrained by the traffic signal timings. The hierarchy of provision for bicycles suggests that reducing motor traffic speeds and volumes are the first two actions that

should be taken to encourage cycling, yet junctions are designed to speed motor traffic through and hinder the movement of people using bicycles.

We believe that innovative junction signal timings could be trialled that for example have alternate cycle and pedestrian movements and car movements using a technology called allways-green. Toucan crossings should automatically detect approaching bicycles and change the lights in time for that bicycle to cross the roadway. Car drivers would not accept having to press a button to get the traffic lights to change, yet bicycle riders are expected to do so.

Wider bicycle infrastructure should be provided where possible. For example, most access to the commons in Cambridge when using a bicycle is through a narrow cattle grid and this causes bicycle traffic congestion. A new scheme to provide a dual bicycle-cattle grid has just been trialled, and this has significantly reduced this traffic congestion at a critical point.

We therefore make the following recommendations:

1. Bicycles be considered part of the solution for traffic congestion.
2. Road space should be taken away from motorised road vehicles and reallocated to bicycles.
3. Minimum cycle-parking standards, as used in Cambridge, should be adopted nationally.
4. "Operating Risk" or "Strict Liability" be applied to motorised vehicles impact on bicycles and pedestrians.
5. Major road schemes should be designed and built with high quality "non-motorised user" routes, including cycleways parallel to the route, and cycleways at all crossings.
6. Along with bus lanes, separate bicycle lanes should also be provided such that overtaking buses cannot impact on the perceived safety of the people using bicycles.
7. No overtaking within lane rules could be introduced that forbid the overtaking of nonmotorized vehicles within a single lane.
8. Continuous coloured surfaces be provided through all junctions.
9. Innovative junction signal timings be used to increase the number of people moving through a junction, and not the number of vehicles.
10. Toucan crossings should automatically detect approaching bicycles, with sufficient time to avoid slowing the cyclist.
11. High quality cycleways should be built to reduce traffic congestion for both motorised vehicles and bicycles.

We enclose links to three of our main publications: *Cycling 2020*, *Cycling in New Developments*, and *Cycle Parking Guide*.

<http://www.camcycle.org.uk/planning/guidance/newdevelopments/>

<http://www.camcycle.org.uk/cycling2020/>

<http://www.camcycle.org.uk/resources/cycleparking/guide/>

January 2011

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#### **Written evidence from the Institute of Highway Engineers (IHE) (ETM 14)**

##### THE INSTITUTE

The Institute of Highway Engineers IHE (formerly the Institute of Highway Incorporated Engineers IHIE) was founded in 1965 and is run by and for practical engineers and allied professionals.

IHE registers Chartered and Incorporated Engineers and Engineering Technicians with the Engineering Council and currently has almost 3,000 members who work in Central and Local Government, Consulting Engineers and supplying contractors. IHE members work in a wide variety of highway related disciplines including:

- Traffic Management.
- Highway Maintenance.
- Bridge Maintenance.
- Infrastructure Design.
- Traffic Signals.
- Intelligent Transport Systems.
- Development Management.

The Institute is well known for its training courses, and specialist qualifications in development management, traffic signing, highway maintenance, road safety and signal control. We also accredit academic courses through the Joint Board of Moderators (JBM) with the ICE, IStructE and CIHT and maintain a public register of road safety auditors.

We are also developing specialist “competence” based qualifications eg in road safety engineering, traffic signing, highway maintenance and signal control, several of which have DfT etc. backing.

The IHE is a full member of the Construction Industry Council, a member of the Adept training group and a member of the Parliamentary Advisory Committee for Transportation Safety (PACTS).

The IHE publishes good practice guidelines and was awarded the Prince Michael Road Safety Award in 2005 for its “Guidelines for Motorcycling” which is a compendium of good practice for road engineers in how to consider that particular group of “vulnerable” road users.

#### SUMMARY OF PROPOSALS AND COMMENTS IN THE IHE SUBMISSION

(i) Road congestion presents a significant cost to the UK economy. At a local level relatively inexpensive interventions can bring about significant reductions in journey time and defer the cumulative effect of delay (paragraph 1.1).

(ii) Interventions at junctions, particularly at bottlenecks, often have important consequences for congestion but there is no agreed method of evaluating the congestion consequences (paragraph 1.3).

(iii) Congestion is not currently a priority compared with the other local objectives. Managing road networks to reduce congestion could require a reversal of attitudes, and call into question many of the sorts of schemes currently prioritised by local authorities. (paragraph 1.4).

(iv) Alleviation of congestion requires measures at junctions to increase vehicle capacity. Even removing signals requires expenditure. Managing the road network involves reviewing bottlenecks and a national initiative would probably be needed to bring about this level of activity. (paragraph 1.5).

(v) Technology can play an important role in addressing congestion but systems require significant on-going maintenance which is rarely adequately allowed for in recurrent expenditure. (paragraphs 1.9 and 1.10).

(vi) Key to managing the network are skilled, trained, motivated, recognised and rewarded staff dedicated to improving our performance and management. It is imperative that local authorities and consultants address the growing skills gap and the demographic problem caused by experienced engineers leaving the industry. Authorities and consultants should be encouraged and rewarded for directing staff to improving the design and management of the road network and to recruit, retain and develop staff by re instating training and recognition of professional registration. (paragraphs 1.11, 1.12 and 1.13, 3.2).

(vii) Driving standards need to be improved. Most road users after they have passed their driving (or riding) test do not make any effort to keep up-to-date with current road signs, the law and the Highway Code. The Highway Code is thus largely ineffective as a means of engaging with the vast majority of road users. (paragraph 2.2).

(viii) Driver distraction has become a topic of great concern in recent years. However, there has been little research into the cultural change required to address this issue. Cultural and behavioural issues must be addressed to effect real change; much of our current activity is treating the symptoms of road user problems rather than curing them at source. (paragraph 2.4).

(ix) Good initiatives, such as “Bike Safe”, do exist but more needs to be done to encourage drivers and riders to adopt a life-long skills attitude and to regard a licence to drive or ride as a privilege. Financial incentives such as lower insurance premiums do exist but are rare and more could be done, possibly through the vehicle licensing mechanism. (paragraph 2.5)

#### WRITTEN EVIDENCE

In view of the short time scale this IHE response has been coordinated by the Presidential team and represents edited commentary and evidence from a small invited group of IHE members and friends thus it concentrates only on the areas of interest selected by the contributors.

##### *1. The extent to which the Government and local authorities should intervene to alleviate congestion and the best means of doing so*

1.1 Prior submissions to the Select Committee on Transport have shown that the cost of congestion to the UK economy is significant. The Transport Select Committee Seventh Report (2005) referred to the CBI's estimate that road congestion costs the UK economy £20 billion per year. Eddington in 2006<sup>1</sup> hypothesised that a 5% reduction in travel time for all business travel on the roads could generate around £2.5 billion of cost savings. Whilst the “Predict & Provide” culture of road building has fallen from favour, none the less significant benefits should accrue from making better use of our existing infrastructure. Experience from IHE

members suggest that relatively inexpensive interventions at local level can bring significant reductions in journey time and delay the cumulative economic effect of congestion.

1.2 Congestion arises wherever vehicle demand exceeds road capacity, the all important supply side of the equation. During the last 20 years or so, there has been minimal road building in urban areas, and managing the existing road network has been, and continues to be, the only way of controlling or managing vehicle capacity. Most everyday urban congestion occurs at signalised road junctions—the bottlenecks in the road network—and we are aware that there are calls for signals to be removed. However, junction design needs to address accident problems, provide safer crossing opportunities for pedestrians (particularly impaired pedestrians) and cyclists and to redistribute traffic queues and, although IHE supports shared space concepts (see our UK resource site: [www.homezones.org.uk](http://www.homezones.org.uk)), it must be recognised that each site needs to be studied to identify the best solution and this costs money and takes expertise.

1.3 Modifications to improve safety, or conditions for buses, cyclists or pedestrians, may be implemented at relatively low cost but often results in reduced capacity for vehicles and increased congestion and there is no agreed way of evaluating these congestion consequences.

1.4 Far from alleviating congestion, much traffic management can have the opposite effect. Congestion is often not seen by local authorities as being a priority compared with other objectives, particularly now money is short, and it has recently been deleted as a Target by Government. Managing road networks to reduce congestion would require a reversal of this approach, and could call into question many of the sorts of schemes currently prioritised. Achieving a change of direction might require a national initiative making clear the importance of congestion on local roads.

1.5 Alleviation of congestion on local roads normally requires measures to increase vehicle capacity. Managing the road network would increasingly involve the review of bottleneck junctions and devising ways of getting more vehicles through. Again a national initiative would probably be needed to bring about this sort of activity start to make any sort of impact.

1.6 The design of schemes for junctions whether controlled or shared space, requires very specific skills and expertise in areas where the IHE is pre-eminent vis:

- Improving safety and conditions for buses, cyclists and pedestrians in ways which limit the effect on congestion.
- Enhancing public space.
- Identifying geometric layout improvements, and better methods of signal control to increase vehicle capacity.

1.7 Technology has always played an important role in congestion management in the UK and UK engineers are at the cutting edge in the development and deployment of this technology. As far back as 1969 the Transport Road Research Laboratory (now TRL) developed the TRAFFIC Network Study Tool (TRANSYT)<sup>2</sup> a computer based tool for determining traffic signal timings for networks of junctions to minimise stops and delays. The development of TRANSYT led directly to the invention of Split Cycle Offset Optimisation Technique (SCOOT)<sup>3</sup> which is a dynamic traffic feedback and control system for networks of signalised junctions deployed by many local authorities throughout the UK and abroad. SCOOT systems require investment but benefits can be significant. Hunt et al (1982)<sup>4</sup> found that SCOOT could reduce average delays by up to 12% when compared with fixed time traffic signal plans. UK engineers continue to innovate in the traffic control and modelling arena and are credited with the creation of other significant tools such as Microprocessor Optimised Vehicle Actuation (MOVA)<sup>5</sup> which, at isolated junctions, can deliver reductions in delay similar and occasionally better than SCOOT, and LinSig,<sup>6</sup> an important modelling and design tool used in the UK. . DfT estimated in 1997 that, if MOVA was applied to all the isolated traffic signals in the UK, the savings in delay would be in excess of £220 million.

1.8 The sophistication and deployment of technology varies amongst Authorities but many will have reasonable CCTV coverage and a means of collecting data on traffic patterns. Authorities should have a good understanding of local congestion hot spots and key events which trigger congestion. To variable degrees Authorities have communications links and equipment which allow the remote control of traffic signals, car park guidance signs (eg in Nottingham), bus priority (eg in Reading), tidal flow systems etc. The most advanced have invested in Urban Traffic Management & Control (UTMC)<sup>7</sup> systems which allow the integration of control and information systems and control via computer algorithms (including SCOOT).

1.9 Investment in technology is, unfortunately, often seen as a panacea for traffic problems, involving up-front investment with the promise of an automated solution. In reality systems are never fully automatic and investment needs to be carefully planned with adequate resources made available for their management and maintenance. The need to provide for running costs is unfortunately often at best under estimated and at worst completely overlooked in an attempt to drive down revenue costs.

The majority of UK road junctions are probably not running at optimum capacity and this is almost entirely due to a lack of both staff and money (and political will) to model, adjust (and re design if necessary) existing junctions. In financially austere times it is particularly attractive to make better use of the investments we have

already made. The key to getting more from our existing infrastructure is dedicated, trained and motivated personnel with a remit and the freedom to improve efficiency.

1.10 Local authority departments often seem to be in a permanent state of transition with restructures every three to four years. Restructuring usually involves staff rationalisation and requires those remaining to take on multiple roles. Their focus is thus diluted and, whilst they may receive some transitional training, they are given little or no support for professional development. Consultancies & Local Authorities are also facing severe financial difficulties and one of the first casualties is staff training. Around half the respondents to the IHE members' survey 2010 indicated that their employer was unlikely to fund any training in 2011. If the investment that has already been (and continues to be) made in smart technology is to be maximised, engineering skills must be sustained and developed.

1.11 IHE believes that whilst investment in new technology is important, we are none the less often failing to make the best of what we already have. To reap the benefits of the investment already made in smart infrastructure we must recognise, train and support engineers and technicians to manage and maintain these systems. The demographics are such that experienced personnel are retiring (or being made redundant) and we have a skill gap emerging as a result of failure of local authorities and consultants to recruit, train and retain staff dedicated to the management and maintenance of our smart systems. A summary of sources of information on supply and demand is here:

<http://www.theihe.org/training/training-for-ieng-and-engtech/demand-and-supply/>.

1.12 A positive step in getting the best out of our current infrastructure would be to encourage (and reward) local authorities who free up engineers to concentrate on core activities and commit time and resources to re-visit existing junction design and operation. One way to encourage recruitment, retention and development of specialist engineers would be to restore the link between salary grades and professional registration and support engineering personnel by funding training (including a return to day and block release courses).

## *2. The extent to which road user culture and behaviour undermines effective traffic management, including the relevance to today's road users of the Highway Code*

2.1 Road users are not passive entities, blindly obeying signs and driving rules—indeed, in many cases they understand neither the true meaning of the signs and road markings provided to assist them, nor the rules and guidelines intended to ensure a trouble-free journey.<sup>10</sup> Current engineering, education and enforcement interventions assume that road users will react in a generally predictable, consistent way to external stimuli or controls. However, road user behaviour is determined by a large number of factors (including many completely unrelated to the journey being undertaken) which reduce the predictability of responses to interventions and may result in different behaviours in identical situations because of unrelated external circumstances.

2.2 Whilst drivers are quick to recognise common errors in others' road use, they seem incapable of identifying shortcomings in their own behaviour. A number of studies have demonstrated that the majority of drivers consider themselves to be "above average" in their driving skills;<sup>8</sup> the corollary to this appears to be that those least in need of additional training are often paradoxically those most likely to seek it out. Whilst there is a general recognition that driving standards need to be improved, few make any effort to even keep up-to-date on evolving road signs and law. The Highway Code, it seems, has little value to road users after they have passed their driving (or riding) test and is thus largely ineffective as a means of engaging with them.

2.3 Road users are clearly conscious of some "adaptive behaviour", recognising, for example, that driving behaviour will depend on the social situation and who the driver is with at the time.<sup>9</sup> However, there are elements of adaptive behaviour which are not so clearly recognised, particularly with respect to frequent journeys where familiarity breeds contempt. Many road users journey on auto-pilot and are unconscious of particular circumstances or adaptations. Changes to the road environment are rapidly assimilated and become part of the routine. Additional signs and road markings become part of the scenery over time—not a problem if driving behaviour has adapted appropriately, but counter-productive where a long-term change has not been effected. Peer pressure has a clear impact here, particularly with respect to vehicle speed—whilst excessive speed is generally recognised as a problem, "moderate" speeding is tolerated and enforcement interventions which address this issue are not well-received.

2.4 Cultural change happens slowly. Driver distraction has become a topic of great concern in recent years, as cars assist the driver more and more, reducing the need to concentrate solely on driving, and the range of in-car non-driving distractions has increased. However, driver inattention is possibly a greater, unaddressed concern, linked to some of the adaptive behaviour concepts above. There is a widespread recognition of "inattentive blindness" when focussing on some activities detracts from our ability to recognise abnormal situations<sup>10</sup> and this has even formed the basis of a TfL campaign to improve recognition of cyclists.<sup>11</sup> However, little research has looked at the cultural change required to address this issue; nor is it clear by what means change can be effected. These cultural and behavioural issues must be addressed to effect real change; much of our current activity is treating the symptoms of road user problems rather than curing them at source.

2.5 What is needed is a cultural change in drivers' attitudes. Drivers (and riders) must be encouraged to regard the possession of a license to drive on UK roads as a privilege and encouraged to make a life-long commitment to maintaining their skills. We must foster an attitude of pride in driving skills and a commitment to maintain and supplement knowledge of important safety related changes to legislation and enforcement.



Previously a minor incentive was reduced insurance premiums for “Advanced Drivers” but this has largely been eroded by the increasingly competitive insurance industry. Initiatives do exist such as “BikeSafe”<sup>12</sup>—a nationwide police-led motorcyclist casualty reduction initiative that is run by the majority of forces throughout England, Wales, Scotland and Ireland. Its engages with post-test riders in a conflict free environment to consider and analyse why motorcycle crashes are happening and it encourages them to foster a continual development attitude to riding including, for some, encouragement to share their skills by entering “The Register of Post-Test Motorcycle Trainers” (RPMT)<sup>13</sup> which carries a financial incentive with respect to insurance premiums. The Institute of Advanced Motorists have also recognised the importance of continual development of riding skills with their “Skills for Life Programme”.<sup>14</sup> Initiatives such as these should be encouraged and promoted and mechanisms explored to reward participants both through the insurance industry and possibly through the Vehicle Licensing charges.

### 3. *Intelligent traffic management schemes, such as the scheme which has operated on the M42 and their impact on congestion and journey times*

3.1 By introducing hard shoulder running, the M42 Active Traffic Management (ATM) scheme<sup>15</sup> has more or less widened the motorway to four lanes in each direction. Not surprisingly, the equivalent of an extra lane in each direction has dramatically reduced congestion. This lower cost for of motorway widening is now the preferred way of tackling the most congested section of motorway throughout the country, and substantial schemes are under construction on the M1 and elsewhere.

3.2 Whilst M42 type schemes can tackle congestion on lengths of road between junctions, there are many junctions on the national road network where everyday congestion is a problem at peak times. Whilst the ATM schemes are extremely beneficial, IHE believes that if a small proportion of the funding allocated to ATM (currently valued at £5.6 million per kilometer of motorway converted) was applied to existing junctions then significant improvements could be made. Again the traffic engineering skills of IHE members could be put to good use in tackling congested junctions using the best engineering and communication techniques.

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January 2011

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### Written evidence from the Passenger Transport Executive Group (pteg) (ETM 16)

#### 1. INTRODUCTION

1.1 *pteg* represents the six English Passenger Transport Executives (PTEs) which between them serve more than eleven million people in Tyne and Wear (“Nexus”), West Yorkshire (“Metro”), South Yorkshire, Greater Manchester, Merseyside (“Merseytravel”) and the West Midlands (“Centro”). The PTEs plan, procure, provide and promote public transport in some of Britain’s largest city regions, with the aim of providing integrated public transport networks accessible to all. The PTEs are responsible to Integrated Transport Authorities (ITAs) made up of locally elected representatives of the areas served. Leicester City Council, Nottingham City Council, Transport for London (TfL) and Strathclyde Partnership for Transport (SPT) are associate members of *pteg*, though this response does not represent their views.

1.2 *pteg* welcomes the opportunity to respond to the Committee’s inquiry into this important topic and would be willing to appear before the Select Committee, should the Committee wish us to expand on any of the points made in this response.

#### 2. THE ROLE OF PUBLIC TRANSPORT IN ALLEVIATING ROAD CONGESTION

2.1 Effective public transport, which is able to move large numbers of people into and out of, and around, urban centres more cheaply and efficiently than private cars, is essential if congestion is not to thwart the economic recovery and future sustainable growth. Moreover, for the 33% of households in metropolitan areas who do not own a car,<sup>22</sup> public transport also provides a vital connection to jobs, services and facilities.

2.2 Our analysis shows that public transport accounts for more than half of all morning peak trips into the largest city centres in England. If all these trips were to be made by car, traffic levels would double and cities would grind to a halt. Ensuring that public transport remains competitive relative to the private car along key radial corridors is therefore critical if we are to avoid congestion to spiral out of control in the future.

#### 3. THE EXTENT OF CONGESTION IN PTE AREAS AND ITS IMPACT ON PUBLIC TRANSPORT

3.1 Data collected by the DfT since 2006 for the largest urban areas in England<sup>23</sup> shows that, with the exception of Tyne and Wear and Bristol, average speed (one measure of congestion) is substantially higher in London than in other large urban areas. In 2008–9, this indicator was 38% lower in Manchester, 27% lower in Merseyside and Leicester, and 17% lower in Nottingham, South Yorkshire and West Yorkshire.

3.2 This is not unrelated to the substantially higher levels of transport investment in London compared to other regions. In 2008–09, HMT estimated public spend on transport per head of population to be £641 in London and £287 in the North West. These figures also bust the myth that the most cost-effective transport interventions are all likely to be concentrated in London. Since it is likely to be easier to reduce congestion from a high than a low level, there are likely to be a number of highly cost effective transport interventions to be made in large urban areas outside London.

3.3 But for public transport users congestion is no longer the only problem. Research by Passenger Focus and DfT shows that while punctuality and reliability are the priority for bus passengers these attributes now top the list of service factors that passengers are most dissatisfied with. As often stated by operators, reliability is also a key cost driver for the industry.

3.4 The attractiveness of bus and on-street rail networks is very much at threat from the sustained rise in congestion observed over the past few decades. But public transport also suffers more than general car traffic, in terms of reliability, from increases in congestion and poor traffic management.

3.5 This is due to the fact that:

- bus routes are fixed and hence cannot easily avoid congestion hotspots;
- traffic control systems are often optimised for average car speeds, and therefore out of sync with bus services which must stop to pick up and drop off passengers;
- bus lanes are particularly prone to parking infringements and kerb side street works, which can greatly reduce their role in improving punctuality;
- small schedule deviations can easily blow out of proportion and lead to severe bus bunching due to the accumulation of passengers at bus stops and the prevalence of on-board ticketing;

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<sup>22</sup> Source: DfT, NTS 2009

<sup>23</sup> Individual PTE annual monitoring reports

- unlike for private car travel, waiting time at bus stops makes up a significant proportion of generalised cost for bus users. Given that waiting time is conventionally weighted at twice in-vehicle time, any increases in waiting time due to greater unreliability have a disproportionate, and typically under-valued, effect on the attractiveness of bus networks;
- reliability (in the form of average deviation from scheduled times) is estimated to be valued three times more highly than in-vehicle time by bus passengers (Hollander, 2006). As a result, poor reliability severely undermines the attractiveness of bus networks and, in turn, contributes to further congestion.

3.6 So for public transport to be efficient, attractive and cost effective it must be fast, reliable, punctual and offer an all-round high quality service. Traffic congestion can badly impact on punctuality and discourage those people who have a choice to use the services. In turn, worsening public transport will lead to growing traffic congestion in what could risk becoming a self-reinforcing vicious circle. We would therefore argue that public transport should be an essential component of any strategy aiming to deliver more effective road and traffic management.

#### 4. THE ROLE OF PTEs IN TACKLING CONGESTION AND IMPROVING THE ATTRACTIVENESS OF PUBLIC TRANSPORT

4.1 The PTEs play a key role in funding and promoting integrated and high quality local public transport networks in England's largest metropolitan areas. As the statutory body responsible for joint Local Transport Plans (LTPs), PTEs, in collaboration with their local authority partners, lead the way on investment in bus priority systems, such as bus lanes, bus gates and traffic signal control optimisation based on Automatic Vehicle Location (AVL) systems.

4.2 But better infrastructure is not always the answer and the PTEs have also put significant resources into demand management measures such as school and workplace travel planning. We are also at the forefront in the provision of high quality public transport information. For example, South and West Yorkshire PTEs now run the most successful bus real time mobile information system (Nextbus) in the UK, which receives tens of thousands of requests on a daily basis.

4.3 PTEs also play a major role in improving bus reliability through voluntary Performance Improvement Partnerships (PIPs), a mechanism which sets punctuality targets and involves a commitment on both the part of bus operators and transport authorities to increased reliability.

4.4 The PTEs' broad role and strategic overview mean that we are able to identify the most effective combination of measures for tackling a specific local problem. However, many key functions affecting public transport remain outside the responsibility of PTEs. These include the operation of public transport services, enforcement activities and direct responsibility for highway infrastructure. Although we strive to work effectively with our partners and other key stakeholders, governance arrangements have, in some cases, got in the way of effective delivery.

4.5 The 2008 Transport Act and 2009 Local Democracy, Economic Development and Construction Act give urban areas the opportunity to review the way in which these transport responsibilities are governed and organised in Met areas in a way which meets local aspirations and circumstances.

4.6 By creating Mayors for the twelve largest Districts that don't already have them the new Government's Localism Bill will add a further dimension to debates around where transport and highways powers should lie in the city regions. These Mayors will be able to acquire additional powers via the Secretary of State. In the conurbations journey to work areas, traffic flows, highways and bus and tram routes cross District boundaries and we believe that it will continue to be important that there is a strategic oversight for these networks at a city region level.

#### 5. EVIDENCE ON THE IMPACT OF BUS PRIORITY MEASURES IN TACKLING CONGESTION

5.1 One of the areas where PTEs, in collaboration with their district partners, are particularly active is the provision of bus priority measures directly aimed at reducing congestion and improving reliability. The success and value of this type of measure is often underplayed by many stakeholders due to gaps in the evidence base. For that reason, we feel it is important to highlight the results of a recent and comprehensive review by the International Union of Public Transport (UiTP) (2009).<sup>24</sup> This work has shown that signal priority systems, when well optimised for bus services, can achieve as much as a:

- 9.5 second reduction in delay per bus per junction (Southampton);
- 24% reduction in overall bus travel time (Toulouse);
- 49% reduction in bus travel time variability (Sydney); and
- 42% increase in bus patronage (Zurich).

<sup>24</sup> [http://www.tfl.gov.uk/assets/downloads/businessandpartners/interaction-of-buses-and-signals-at-road-crossings\(1\).pdf](http://www.tfl.gov.uk/assets/downloads/businessandpartners/interaction-of-buses-and-signals-at-road-crossings(1).pdf)

5.2 Evidence from five cities (Cardiff, Gothenburg, Portland, Seattle and Los Angeles) has also shown a negligible impact on delays for other traffic although this obviously depends on local circumstances and the degree of bus priority provided.

5.3 Overall, the UiTP work suggests that investment in traffic signal priority can be repaid in 3–16 months, which, assuming an asset life of ten years, would give a benefit cost ratio between 7.5 and 40, which is extremely high by DfT standards.

5.4 This results are consistent with our own evidence. For example, an on-going PTE project costing £1 million and aiming to operationalize GPS-activated bus signal priority at 100 junctions will be delivering an estimated £7 million worth of benefits, mainly through reliability improvements.

## 6. THE KEY ROLE OF DEMAND MANAGEMENT MEASURES AND THE NEED FOR A BROADER APPROACH TO CONGESTION REDUCTION

6.1 Although it is often attractive, and may seem common sense, to target public funds at highly visible infrastructure measures these may not always represent the best value for money in tackling road congestion. Demand management measures and, in particular, what has come to be known as “smarter choices” can prove to be more effective in reducing car use and hence congestion.<sup>25</sup> It is now commonly recognised that behavioural change tools are essential to complement capital improvements in order to achieve change.

6.2 For example, a trial of personalised travel planning in Merseyside has shown a 7% reduction in car use by participants. We have also found school and workplace travel plans to be a critical tool in managing peaked traffic flows around specific areas. However, pressures on local government budgets could potentially lead to the loss of funding for many of these revenue-intensive measures.

6.3 We welcome this government’s initiative to set up the Local Sustainable Transport Fund, which can be used to fund both capital and revenue-based measures. However, this is a very limited and, potentially, short term funding pot. Our position is that in order to deliver the best value for money from all central government funding streams local authorities and PTEs need to have the flexibility to decide on the best mix of measures for their local areas, regardless of whether they are capital or revenue-based.

## 7. THREATS TO THE FUNDING AND EFFECTIVENESS OF PTE INITIATIVES

7.1 The contribution of PTEs to PIPs and LTPs typically relies on funding from the Integrated Transport Block (ITB), which has been cut by 50% in the coming year by the current government. Allied to a reduction in major schemes funding, and the withdrawal of the Urban Congestion Fund announced by the previous government, this is likely to severely curtail our ability to shield bus networks from rising congestion. At a time when government priorities seem to be to make the most of available capacity rather than to build new roads, this sort of short term thinking appears misguided and could backfire badly in the medium term. Although we applaud the creation of the Local Sustainable Transport Fund, this is unlikely to be sufficient either in magnitude or scope to make up for much of the loss of funding elsewhere.

7.2 Substantial central government funding reductions to police authorities and to local authorities in metropolitan local areas is also likely to have an impact on the effectiveness of existing public transport priority measures, given the role of these bodies in enforcement activity. Poorer enforcement (which may come as the result of revenue and staffing cuts) could negate many of the benefits of measures such as bus lanes, restricted access areas or banned turns.

7.3 One significant obstacle for gaining central government funding for larger public transport infrastructure schemes is the bias in the current appraisal framework towards car travel. One example of this is the lower value placed on work time spent on board a bus relative to that spent on a car. As a result, measures aimed at cutting car travel time will be assumed to have higher benefits than those aimed at cutting bus travel time, even if the time saving and number of journeys affected is the same. We would also argue that appraisal fails to adequately take into account that, alongside other measures, significant mode shift will need to take place if overarching climate change goals are to be achieved.

7.4 We understand the DfT is currently re-assessing the appraisal framework and would therefore call for the bias against bus schemes to be removed. But given the important role of public transport and demand management measures in reducing congestion we feel the DfT and government need to have a more fundamental look at how funding is allocated at a strategic level. For example, it makes little sense to cut the ITB in half and leave the Highways Agency (HA) budget virtually untouched by comparison. Should demand for car travel in urban areas begin to grow again as it has done in the past, there will be little the HA will be able to do to keep congestion under control

## 8. WIDER OPERATIONAL AND GOVERNANCE CHALLENGES AND OPPORTUNITIES

8.1 A number of significant governance challenges remain in relation to the way in which the monitoring and enforcement of bus performance is currently organised and managed.

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<sup>25</sup> [http://eprints.uwe.ac.uk/13130/1/CfIT\\_Value\\_for\\_Money\\_Goodwin\\_Final2\\_clean\\_May\\_2010.pdf](http://eprints.uwe.ac.uk/13130/1/CfIT_Value_for_Money_Goodwin_Final2_clean_May_2010.pdf)

8.2 Although it is clear from some of the evidence quoted above that there are measures which are known to work, substantial challenges remain in understanding what is likely to work best in addressing the causes of bus punctuality and reliability in a given setting.

8.3 These include:

- A lack of resource for the English Traffic Commissioners for monitoring bus performance via VOSA monitoring officers. This problem was highlighted on numerous occasions in previous, and the latest annual, report of the Traffic Commissioners (TCs). For example Nick Jones is TC for both the West Midlands and for Wales and in the current annual report he states: *“The Welsh Assembly Government has funded additional bus compliance officers and this allows most operators to be monitored more effectively and regularly. This, in turn, has led to remarkable levels of compliance which are far better than those seen in England. The Welsh Assembly Government deserves the credit for this as its funding has enabled effective liaison between the monitors and operators. Within England it is often claimed that it is difficult to run to time in a busy city or in difficult mountainous terrain—results in Wales show that that this is not the case. I often receive reports of compliance in excess of the 95 per target set by traffic commissioners.”*
- A lack of ready access by all interested parties to the Real Time Information (RTI) data which is the best source of information for identifying the causes of bus punctuality and reliability problems.
- The DfT’s Punctuality Improvement Partnerships (PIPs) initiative, although valuable, has had a patchy impact hitherto (although we understand the current Government plans to refresh and relaunch it).
- There is a disconnect between the informal processes for addressing punctuality problems (including PIPs) and the formal process (via the Traffic Commissioners).
- Although there are some excellent examples of good practice (such as South Yorkshire’s Public Transport Board, which brings together key stakeholders to facilitate shared objectives and partnership working) relationships between the key players in improving performance (public transport authorities, highways authorities, Traffic Commissioners, Passenger Focus and operators) are not always well developed and can be subject to mistrust and a blame culture.
- The powers and responsibilities of the different key players on performance monitoring and enforcement are complex and have developed in an incremental way (creating a series of anomalies).

8.4 We believe that better progress could be made if:

- The PIP initiative were to be reviewed, strengthened and re-launched (something we understand the DfT is looking at) and there was a more structured relationship between these non-statutory processes and the TC’s statutory process;
- A joint review (led by Passenger Focus) should be undertaken of a sample of routes (with a wide range of characteristics) of the causes of performance issues to allow for a more informed debate on what are the causes and remedies for bus performance issues; and
- Traffic Commissioners and Passenger Focus had access to the Real Time Information in order that they can make a more informed assessment of performance issues and to better focus any investigative or enforcement activity.

January 2011

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### **Supplementary written evidence from the Passenger Transport Executive Group (pteg) (ETM 16a)**

#### **REPORT ON THE IMPACT OF THE LTP2 CONGESTION REWARD FUND IN SOUTH YORKSHIRE**

##### **1. INTRODUCTION**

In 2007 the DfT asked 10 Metropolitan areas to produce a Congestion Delivery Plan (CDP) which would outline their ambitions for delivery of schemes that tackle congestion over the lifetime of the LTP2.

Against these plans the DfT made £60 million available over four years, through the Congestion Reward Fund (CRF), which was based on the performance of each of the ten areas. This approach represented probably one of the most “focussed” examples of recent output delivery performance and led to a much improved understanding of how congestion might be measured and tackled. The “carrot” effect of achieving significant levels of reward funding led to the South Yorkshire partners prioritising congestion as a key transport issue. As a consequence all four South Yorkshire Local Authorities adopted the congestion performance indicator as a designated measure within their Local Area Agreement, in support of the then national PSA target.

At an operational level, the launch of the CRF encouraged South Yorkshire to integrate mainstream LTP activity with Network Management and the alignment of LTP investment with the network management duty. It focused prioritisation of schemes which were believed to have a direct impact on congestion at both “hot spots” and along target route and corridors. Resources were also made available to achieve a broader understanding of the impact of congestion by investing in transport modelling in order to test strategies and

schemes. Investments were also made in monitoring traffic flows on targeted routes in order to gain a deeper understanding of the causes and effects of congestion.

Typically, partners used improved monitoring processes on a regular basis for individual schemes and kept track of milestones. Estimated congestion benefits were calculated for each scheme prior to financial resources being allocated; and new Prioritisation Frameworks were adopted to ensure that schemes offering best value were prioritised. The CRF also offered a valuable way of progressing those “enabling” initiatives not so easily funded from mainstream LTP and allowed an element of valuable revenue support activity to be introduced.

Where slippages occurred, visible explanations were available and mitigation measures put in place to deal with the slippages. In South Yorkshire and other locations, the Congestion Delivery process led to new, shared, LTP project management frameworks with all schemes assessed to ensure value for money. Quarterly updates were submitted on both financial and delivery progress and the concept of “whole route performance” developed to better understand how “internal transport interventions” had affected highway conditions. The variations in routes’ performance were identified and as a result South Yorkshire has an improved understanding of why some routes are more susceptible to change than others. This was achieved by identifying the key strategic network within South Yorkshire, targeting specific routes and assigning “RAG-ratings” to the implementation and delivery of congestion tackling interventions.

Robust systems were introduced to review risks to delivery both in terms of scheme progress and resource requirement. These were discussed at Chief Executive and with senior officers on a regular basis. A further impact therefore of the requirement to achieve much needed additional reward funding was that the risks to delivery for the congestion indicator became managed at a senior corporate level by each local authority which ensured that issues were prioritised and dealt with effectively.

## 2. OUTCOMES

Over the five years the Congestion indicator was measured, South Yorkshire not only achieved its LTP2 Congestion indicator target, but also reduced aggregated average person journey times by 5.2% (along the 18 defined routes); at the same time experiencing a 2.7% growth in “person miles”. This led to South Yorkshire achieving its full £4 million CRF funding allocation.

All but one of the 18 routes met respective journey time targets. A number of these were actually achieved against a higher background growth in “person miles” than predicted in our original CDP submission.

Through our development of “route proformas”, the Congestion Delivery Plan process encouraged a better understanding of the relationship between interventions along route corridors and subsequent outcomes. This has been supplemented by the use of the “**strat-e-gis Congestion**” software system, which enables detailed analysis of journey times, average speeds and delays.

## 3. THE ALLOCATION OF CRF

In addition to modelling activity, CRF has been used in South Yorkshire to fund various revenue and capital projects, including Congestion Analysis work; a Key Routes Inspector; and on further development of the South Yorkshire Intelligent Transport System (syITS). Other funded projects include:

- Smarter Choices initiatives (including iTRACE Travel Planning Management tool).
- Preparation work for a Utility Works Common Permit Scheme.
- Mobile ANPR parking enforcement in Barnsley.
- Bus hotspots schemes.
- Bus Key Route initiatives (including bus priority measures along Balby Road, Doncaster; and Rotherham town centre).
- Congestion Target Route packages of interventions on major arterial routes (including various traffic / demand management and Smarter Choices initiatives along the A61 Chesterfield Road and A625 Ecclesall Road, Sheffield).

The £4 million CRF supplemented the mainstream Integrated Transport block settlements, and provided South Yorkshire with more flexible opportunities to fund revenue based activities in support of mainstream capital projects partners.

## 4. NEXT STEPS

The Congestion Delivery Plan / CRF process provided South Yorkshire with an important catalyst to move forward and develop a “Strategic Network”. This Strategic Network now forms a corner stone of the LTP 3 Transport Strategy; emphasising the contribution reliable networks make to our economic growth objectives. CRF has also provided partners with a better understanding of which interventions may provide the best outcomes in easing congestion and achievement of reliable journeys, through evaluation of our best / worst performing routes and assessing where / why earlier predictions have not been realised (or have been exceeded).

We will be assessing our best and worst performing routes against the original predictions for impact. As we move into LTP3, we are developing the previous Congestion indicator into a new journey reliability measure

and the focus on the performance of network in South Yorkshire will continue to be given a high priority for LTP3 investment.

This is a good example of a Central Government funding allocation aimed at one specific outcome. It encouraged local development of analysis, and delivery of key interventions to deliver an enhanced output—reduced congestion.

May 2011

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### Written evidence from the RAC Foundation (ETM 17)

#### ABOUT THE RAC FOUNDATION

1. The RAC Foundation 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.

#### CONGESTION

2. The Foundation welcomes this inquiry. Traffic congestion has a major adverse impact on economic activity and quality of life. It arouses much public concern as recorded in various surveys: for instance the Department for Transport (DfT) reports that in their most recent research on public attitudes “over four in five adults thought that congestion was a serious problem in the country and nine in ten said that it was important for Government to tackle the problem although both of these proportions have fallen slightly over the last 2 years”.<sup>26</sup> Reduction should be addressed as a priority in transport policy.

3. Whilst better traffic management (both by network regulation and in real time) has much to offer it will not go far enough in dealing with the pressure to be put on the main road network from expected growth. A longer term strategy is also needed.

4. Various measures are currently used to assess and predict congestion. Whilst these do indicate some reduction in recent years because of the recession, congestion is still widely prevalent. Road traffic growth must be expected to return as economic growth resumes and the population increases (official population forecasts show 20% increase over the next two decades in some Regions) and, without more intensive attention to management of the network, congestion will worsen.

5. The Highways Agency creates “Stress Maps” showing the difficulties their network will experience in dealing with future demands, given current investment plans. The Eddington Transport Study (2006) set out in detail the implications for the whole road system of continuing with the then current policies, concluding that “if left unchecked 13% of traffic will be subject to stop-start travel conditions by 2025”. Our report *Roads and Reality*<sup>27</sup>, looking at the period to 2041, forecast major extension of congestion on the strategic network in the absence of substantial improvement. (It also displays Highways Agency national stress maps relating to three levels of traffic growth; pp57–59.)

6. Recent work by HS2 Ltd in association with the DfT, in connection with the case for investment in high speed railways has estimated the severity of the increase in road congestion that is expected to obtain by the time high speed rail is operational (after 2025). It also demonstrates how little difference high speed rail will make: for instance only reducing traffic on the M1 by 2% (perhaps two years' growth), even though that is on the same line of route.

7. For many years network capacity has not kept pace with traffic growth. This trend will be exacerbated by the cuts announced in the Spending Review. Compared with the 2010–11 baseline, the average annual Highways Agency capital spend over the next four years will be cut by 35%. Highways agency resource spend is to reduce by 23% and local government transport resource spend is to reduce by 28% (all these figures are in cash terms and will be further eroded by the effect of inflation). Many of the schemes to be delayed or withdrawn by local government are capital or maintenance programmes for roads: some of them large schemes.

8. The Eddington report noted that many road improvement schemes would offer substantial benefits. When the economy has recovered, a long term strategy of improvement based on substantial addition of physical capacity will be necessary if congestion is to be reduced effectively. Like Eddington, the RAC Foundation believes that the ever-worsening problem caused by the difficulty of funding sufficient infrastructure adequately to serve the nation's growing needs can be solved if but only if the methods of charging for and administering our roads are changed to make them more similar to our other utility services.<sup>28</sup>

#### MANAGEMENT

9. For major trunk roads other approaches will assist. For example, the A12 in Essex and Suffolk is a particularly busy non-Motorway which had become notorious for its unreliability. It depended for major capital

<sup>26</sup> <http://www.dft.gov.uk/pgr/statistics/datatablespublications/trsnstatsatt/roadcongestion>.

<sup>27</sup> Banks, Bayliss and Glaister (2007) *Roads and Reality* RAC Foundation, [www.racfoundation.org](http://www.racfoundation.org)

<sup>28</sup> Glaister (2010), *Governing and Paying for England's Roads*, RAC Foundation.

funding on the East of England Regional Development Authority and large-scale physical improvements will not now be funded. But following an Inquiry<sup>29</sup> in 2008 an Alliance was created between Essex County Council, the Police and the Highways Agency. This began to demonstrate how careful attention to managing the road could significantly improve its performance. These measures included patrols to speed clearance after incidents, along with some limited changes in road layout. Sadly, following the Spending Review, £60 million earmarked from the regional allocation has gone back into the fund allocated nationally by DfT; £60 million earmarked from the Highways Agency goes back into their reduced funds; the initiative with patrols is being reviewed but politicians from both counties wish to keep it going in some form.<sup>30</sup>

10. These experiences illustrate a general proposition: more systematic management of existing roads can increase their throughput, reliability and safety, but that will usually require more public expenditure.

11. We fully recognise that the economic situation must constrain public spending but the importance of reducing congestion warrants special attention. Where projects such as widening cannot be supported at present there is scope for more limited improvements. For motorways the previous programme of Managed Motorways should be reinstated and further extended.

12. Addressing congestion requires assessment of the causes—traffic flow levels, incidents, disruption from works or weather—their relative importance and hence appropriate solutions, having regard to availability of resources. Heavier congestion from traffic flows tends to lead to more incidents and hence more severe and extensive congestion, possibly spreading more widely if traffic is diverted to unsuitable roads. We recognise that proper procedures must be followed at incident sites but attention should be given to ensuring that roads are reopened as quickly as possible. A study for the RACF Foundation confirmed that there is much that can be and should be done.<sup>31</sup> Its recommendations were that

- Police authorities should maintain 24-hour cover by specialist accident investigation teams.
- Accidents should be investigated by the nearest team even if it is from a neighbouring force.
- Thought should be given to removing the investigation role from individual constabularies and creating a national unit.
- The role of investigating an accident site and also managing it, is too much for one team and the responsibilities should be split.
- Recovery vehicles should be called in as soon as possible so they are on site when needed.
- The Highways Agency should establish a geographical database of the motorway network linked to roadside markers to be used in conjunction with laser scanning so debris can be referenced and removed more quickly.

13. It is not infrequent for major roads to be closed for many hours whilst the police collect evidence. To address this and in order to protect officers from the accusation that they had not done everything possible to collect evidence irrespective of disruption, it may be helpful if a protocol be agreed between the Home Office and DfT. For example: absolute priority to getting injured off site; officers not involved in these operations to commence investigation immediately; once injured away up to, say, four hours allowed for normal investigation; if this is proving insufficient due to special factors authorisation for an extension to be obtained from a senior police officer; any extensions to be reported to next meeting of the Police Authority with the reason.

14. Congestion figures prominently in the objectives of the organisations responsible for management. A key goal of the Highways Agency is delivering reliable journeys. Local traffic authorities have a Network Management Duty to manage the road network to keep traffic flowing efficiently, overseen by a Traffic Manager. DfT support this by helping to promote and share best practice. Local Transport Plans are required to address congestion in their goal of supporting economic growth. A substantial proportion of delays associated with congestion are in urban areas, and, for major urban areas, the Urban Congestion Programme and the associated Fund provide a structure and incentive for reducing congestion.

15. The capacity of the authorities to deliver on these objectives is crucially dependent on funding being secured and directed to the appropriate activity. Funding arrangements have changed following the Spending Review with a much simplified grant structure. Further, the Government has indicated its longer term intention to change arrangements with “decisions on local transport priorities ...to be taken out of Whitehall and placed in the hands of local people”. (Philip Hammond statement 28 October 2010). There will be a need to provide for the involvement of local enterprise partnerships as they become established.

16. It is important that these changes do not lose sight of the continuity of the road network. Motorways and the trunk roads are managed from a national perspective by the Highways Agency. Other A roads and many B roads for which local authorities are responsible carry substantial amounts of traffic whose journeys are not within the boundaries of a single authority, in many cases passing through a number. On minor roads and in urban areas through traffic is generally less but can still be considerable. Maintaining a consistently

<sup>29</sup> [www.essexpartnershipportal.org/data/download\\_file/.../A12\\_report.pdf](http://www.essexpartnershipportal.org/data/download_file/.../A12_report.pdf)

<sup>30</sup> [http://www.gazette-news.co.uk/news/county\\_news/8439279.A12\\_Alliance\\_\\_We\\_\\_ll\\_try\\_to\\_spare\\_the\\_axe/](http://www.gazette-news.co.uk/news/county_news/8439279.A12_Alliance__We__ll_try_to_spare_the_axe/)

<sup>31</sup> <http://www.racfoundation.org/media-centre/road-accident-clear-up>



effective road network requires some oversight of individual authorities' performance and strategies for improvement. This needs to be undertaken at central government level.

17. We have noted with interest the report from DfT, *Evaluation of the Urban Congestion Programme*.<sup>32</sup> We strongly support the aim of seeking to establish how strategies are developed and the effectiveness of the various measures used as a basis for future guidance. We note that a key driver identified was the potential availability of funding for congestion relief, both from the Programme Fund and the Transport Innovation Fund. We would argue that funding arrangements should include incentivising components where appropriate.

18. The report identifies some useful conclusions but also a number of difficulties. Further studies of this kind should be pursued to improve understanding of the effectiveness of measures in the particular situations encountered. An important question in this context is what factors can be most usefully measured in assessing the level of congestion and how to tackle it. We have looked into this in two studies, one taking a preliminary look at what analyses might be considered for the main road network and one looking at available information for the North West Region as a basis for trying to establish how this might be improved. The main conclusions are set out in the Annex, below.

#### SPECIFIC POINTS

19. The Committee asked for views on some specific points.

- On intelligent traffic management schemes (such as the Managed Motorways, like the M42) we note that experience to date shows satisfactory operation with improved journey time reliability, reduction in numbers of incidents and lower emissions. Drivers generally are supportive. The approach is both less costly than physical widening and, because land acquisition is not necessary, faster. We support the extension of its use as quickly as possible.
- On managing roadworks we are concerned that existing arrangements are not fully effective in minimising the period of occupation and hence the associated congestion. The DfT is preparing for changes in the legislation to increase maximum penalty charges for overrunning agreed periods of occupation and to provide for a new approach with the introduction of lane rental schemes. We believe that both offer the prospect of reduced congestion. They will more-accurately align the incentives on those responsible for roadworks with the public interest.
- The provision of bus lanes to offer freer movement of buses when traffic is heavy inevitably impacts on other road users, reducing available capacity. We recognise that more reliable bus journey times can lead to modal transfer and hence some reduction in car use but would argue that making the most effective use of the capacity available requires careful assessment of the implications of features such as bus lanes on all road users and planning installation and arrangements for use, such as timing, to maximise benefit.

#### SUMMARY

20. In summary, we argue that:

- tackling road congestion must be addressed as a high priority within transport policy;
- for the longer term substantial new physical capacity will be needed and a strategy should be developed for implementation in anticipation of the recovery of the economy;
- in the short term public funding will be constrained and should be directed to lower cost measures: these can be effective;
- commitment and delivery will need funding and appropriate arrangements for providing this;
- current funding arrangements and those proposed for the longer term must recognise the continuity of the road network beyond local authority boundaries and include provision for central oversight;
- where practicable funding should be linked to performance, as with the Urban Congestion Performance Fund;
- a comprehensive review programme should be mounted to investigate the effectiveness of strategies and measures in use; and
- an important element of these reviews should be establishing what statistics provide the most useful and informative measures of the incidence and severity of congestion.

21. On specific measures

- the positive experience of Managed Motorways warrants wider application;
- the proposed new arrangements to control occupation for road works should be pursued; and
- proposals for bus lanes and similar interventions should be evaluated in terms of their impact on all road users.

22. We would add a particular concern that a priority for attention should be developing new procedures for dealing with incidents which will allow roads to be reopened more quickly.

<sup>32</sup> WSP for Department for Transport (2010) Evaluation of the Urban Congestion Programme Final Report [www.dft.gov.uk](http://www.dft.gov.uk)

David Bayliss has produced two reports for the RAC Foundation which bear on the Committee's interest.

The first of these, *Monitoring the Performance of the Main Road Network*<sup>33</sup>, reviews information currently available on the performance of the main road network in England and considers what indicators might be developed to give a more meaningful picture of conditions and how these are changing. The report makes recommendations for measures to be investigated with a view to establishing which are successful in showing variation by time and location in a way that is meaningful and useful to the public. The results should help to identify appropriate components for an effective monitoring regime.

The initial list of measures proposed for investigation is

- variations in travel times by time of day and day of the week by type of road and region;
- variability of travel times on key routes at peak periods (morning, evening, Friday pm, etc.);
- average delays by region;
- average delays and variability (peak and off peak) on (say twenty) key routes;
- regional differences in average delays, lost time and journey time variability; and
- occurrence of large delays (eg speeds less than 50% of free flow speeds for over an hour).

The second report, *Measures of Traffic Conditions in North West England*<sup>34</sup>, deals with a similar exercise focussed on the North West and covering all elements of the road network. It notes that, although data on traffic speeds and congestion for the region have been published for parts of the area for some time, variations in coverage over that period have made it difficult to draw useful conclusions. It argues the need for greater standardisation and continuity, and for more extensive survey networks to give an appropriate level of resolution. It argues also that, for effective coverage of the region's road network as a whole, the balance of monitoring needs to shift to include more coverage of the non-trunk roads and urban areas. These reports have not been formally published, as they are working documents for a separate piece of forthcoming RAC Foundation research. They are however available to the committee on request.

January 2011

### Written evidence from the Chartered Institution of Highways and Transportation (CIHT) (ETM 22)

The Chartered Institution of Highways and Transport's (CIHT) response to the House of Commons Transport Select Committee call for evidence entitled:

#### EFFECTIVE ROAD AND TRAFFIC MANAGEMENT

The CIHT is pleased to have the opportunity to submit evidence to the House of Commons Transport Select Committee. CIHT would like to commend the evidence submitted by the Association of Directors of Environment, Economy, Planning and Transport and ITS-UK to the Committee and where appropriate we have re-iterated parts of their response in ours.

#### 1. *The prevalence and impact of traffic congestion and likely future trends.*

The existing highway network has a finite capacity and so the projected growth of population and vehicle ownership in future years must inevitably lead to concerns about traffic congestion given the limited opportunity to build new roads. With this background any move to reduce congestion would have to be grounded in a strategy that linked better use of the existing road space, the use of technology to manage traffic and inform travellers, improved driver behaviour and continued encouragement of modal shift and changes in working practices.

With the finite road capacity that the UK has therefore, we have to consider solutions which can make the best use of our transport systems. "Delivering a Sustainable Transport System", "Guidance on Local Transport Plans" and the equivalent strategy documents for each of the devolved governments, all stress the importance of thinking smarter travel first in terms of our travel solutions.

For example, the five goals for transport in "Delivering a Sustainable Transport System" make it absolutely clear that smarter travel solutions must be an integral part of the solution to our 21st Century transport challenges. CIHT along with ACT Travelwise and the Royal Town Planning Institute in 2009 produced "Making Smarter Choices", a guide for practitioners on implementing smarter choices to assist them in implementing travel demand management.

<sup>33</sup> D Bayliss (2010) *Monitoring the Performance of the Main Road Network* RAC Foundation

<sup>34</sup> D Bayliss (2010) *Measures of Traffic Conditions in North West England* RAC Foundation

The CIHT Transport Manifesto “2010 and Beyond” sets out the following priorities that we believe should be the main order in which transport spending is prioritised:

1. Maintaining and safely operating the network;
2. Making better use of that network; and
3. Making targeted infrastructure improvements.

With a deteriorating highway network and the need to ensure the highest safety standards in road, rail and air, it is essential that the first priority has to be in the maintenance of the existing infrastructure. The real cost of delays due to poor quality infrastructure and the cost of accidents are high. A further deterioration of the network can only exacerbate the situation as well as putting more pressure on the police and rescue services at a time when they will be subject to close financial scrutiny.

Increased capacity through making better use of the existing network through upgrades such as the managed motorway programme, improvements to the rail network and signalling, and small improvements to our airports can all deliver greater capacity at relatively low cost. Smooth flow rates rather than direct capacity increases will bring benefits in terms of journey reliability and accident reduction.

Improved information systems and through-ticketing can also deliver a more efficient use of the existing infrastructure, allowing users to make better-informed choices and, while not necessarily affecting large numbers in terms of percentage use, will bring about a degree of modal shift.

The priority for capital investment should be where demand is clearly exceeding capacity and where there is no reasonable alternative option. Greater consideration should also be given to investment planning which allows the private sector access to better value labour markets and land prices to make the UK more competitive on a national basis.

*2. The extent to which the Government and Local Authorities should intervene to alleviate congestion and the best means of doing so.*

The recognised ways of addressing congestion are reducing demand, increasing infrastructure capacity or a combination of both. Techniques in the first category include reducing the flow of vehicles on to a congested link using traffic signals ( “ramp metering” ) and imposing charges for using the link at peak periods ( road user charging ). In the second category we have simple road widening, signal-controlled use of the hard shoulders to create temporary widening, and “traffic calming”—setting a reduced and identical maximum speed for all the lanes in a carriageway when traffic density passes a set threshold. More detail of these approaches is given below.

Road User Charging is an extremely emotive issue. The apparent inability of scheme proposers to focus clearly upon the reasons why change is needed and the benefits of making changes to drivers and taxpayers has been matched by the dogged refusal of individual drivers to accept payment of a “penny now for a poundsworth” of benefit later on, causing previous proposals to fail. The most notable success has been the London Congestion Zone whilst the most notable failure has been the Manchester TIF bid. It could be said that both cities have a similar traffic problem; however it was only through the personal and highly visible leadership of the then Mayor of London, Ken Livingstone, that the scheme was introduced.

For complex schemes to succeed local leadership and tight governance are needed. One major problem that local authorities encounter is the conflict between the long incubation and planning timescales for transport schemes and the much shorter political procedures that oversee them. As transport schemes take many years to design, receive formal approval prior to building and then operate, the eventual outcome of the scheme can be influenced, amended and/or undermined through local political requirements. The government needs to consider the case for an intervention scheme whereby it can empower itself and Local Authorities to guarantee traffic to flow naturally and without hindrance under normal circumstances but retain a capability of intervening as and when circumstances dictate.

*4. Intelligent traffic management schemes, such as the scheme which has operated on the M42, and their impact on congestion and journey times.*

Intelligent Transportation Systems (ITS) have proven to be extremely effective in a variety of situations across the whole UK road network. However the best examples can be found in the “Managed Motorway” schemes such as the M42 scheme that has facilitated traffic flow across the region by both smoothing traffic flow and enhancing capacity as and when required. This can be as a response to incidents, collisions or sheer excess traffic flow when intervention is critical to enable the maximum number of journeys to be completed in the best possible time.

An earlier example of active traffic management was the variable speed project on the South Western section of the M25 which during heavy traffic loaded times of the day varied the speed limit. Whilst not a perfect solution because there was insufficient camera enforcement, it did demonstrate that traffic flow could be smoothed and the stop start congestion that occurs through minor incidents could be managed controlled. The results of this trial are available in the TRL report PPR033 which is available from [http://www.trl.co.uk/online\\_store/reports\\_publications/trl\\_reports/cat\\_traffic\\_and\\_the\\_environment/report\\_speed-control\\_and\\_incident-detection\\_on\\_the\\_m25\\_controlled\\_motorway\\_summary\\_of\\_results\\_1995-2002.htm](http://www.trl.co.uk/online_store/reports_publications/trl_reports/cat_traffic_and_the_environment/report_speed-control_and_incident-detection_on_the_m25_controlled_motorway_summary_of_results_1995-2002.htm)

Across the UK there are many other examples where ITS have been deployed to help manage traffic flow during peak periods and situations where congestion occurs. Each system has been introduced to counter a specific problem and as a bespoke system operates to local requirements.

“Ramp metering” is another effective technology that is employed at critical times through the installation of traffic lights on the access slip roads to motorways and trunk roads to regulate infiltration of vehicles joining the main road without causing either flow. By avoiding vehicles coming to a halt this prevents one of the main causes of congestion—“stop-start” driving. As this system operates only during peak periods when sensors detect that there is a growing traffic merger problem at that location there is no cause to intervene at other times. However “ramp metering” can sometimes operate in conflict with surrounding roads that are also congested. Currently this technology is confined to the Highways Agency network and as yet has to be fully integrated with Local Highway Authority systems although a greater extension of UTMC principles to urban, inter-urban and the strategic network could be expected to enable high benefits if a “one network” approach is adopted.

Variable Message Signs (VMS) are being increasingly deployed across the road network and enable travellers to make “informed decisions” on their journey options as and when incidents occur. This enables the congestion to be kept to a minimum as motorists select alternative routes thereby allowing the speediest resumption of normal traffic patterns.

Increasing use of the Internet through website messages is proving to be an additional boon as “real-time” information is readily available to travellers to assist journey planning prior to or during journeys. Information-gathering systems linked to intelligent roadside infrastructure can be interpreted by the Highways Agency’s National and Regional Traffic Control Centres to communicate specific messages to the travelling public. The recent extreme winter weather conditions have proven to be an excellent example with a significant increase in the number of travellers accessing the Highways Agency website seeking information and advice on the necessity and applicability of their journeys.

ITS systems can be described as having a “Cinderella” role in that they are an extremely effective behind the scenes and so often fail to receive their due recognition. In these straitened financial times relatively inexpensive ITS systems can return their investment many times over as they operate efficiently 24/7 in the background and enable direct intervention at the most crucial times. If there is to be a genuine effort to resolve and effectively manage congestion then the network must be treated in a coordinated manner by both the Highways Agency and Local Highway Authorities. There is still a tendency for many road authorities to look at traffic management problems from a zero base whereas the considerable past investment in UTMC and similar technology means that adding new capacity to what already exists to address, say, 85% of a problem is going to be far more cost-effective, and faster to commission, than a bespoke new system.

However Intelligent Traffic Management Schemes are only a sticky plaster and is not a long term solution to the problem. Road User Charging is seen by many academics and the profession as a long term solution to rationalisation of journeys, improved journey planning and modal shift.

##### *5. The effectiveness of legislative provisions for road management under the New Roads and Street Works Act 1991 and the Traffic Management Act 2004.*

It has been recognised that all works on the highway will cause disruption and delay to the day to day activities of all users. Some years ago this was estimated at 10% of the overall congestion that traffic, as defined in the Traffic Management Act 2004 (TMA), suffers. CIHT believe this figure was originally produced by the then TRRL under commission to the DfT.

The New Roads and Street Works Act 1991 (NRSWA) introduced a new requirement for Utility Companies to comply with legislation designed to “control” activities by notification and this has subsequently been expanded through the TMA.

Most Utility Companies do comply with the initial requirement for prior notification but consequent management of works and the supply of information regarding progress has been a cause for concern.

The TMA introduced a recommendation that all highway works should adopt the same techniques and practice this method of notification without the legislative powers to enforce. There are many highway authorities that have done this but some only to a limited degree.

The TMA also introduced a new Permit Scheme which positively allows for management of all works. Any work promoter must apply for a Permit to Work whereas under Notification rules, it is only necessary to inform rather than request permission.

Over the years the art of managing these types of works has improved and there has been a significant reduction in the overall congestion.

It has been stated that by applying the Permit Schemes a greater degree of congestion reduction has been achieved (Kent County Council verbal statement) and despite an increase in costs to the community, all the Permit Fees costs may be “passed on”, there should be a corresponding reduction in congestion costs.

CIHT believe there is scope for a research project to determine the overall costs/benefits from the introduction of Permit Schemes against a limited reduction by the strict application of Notification and all factors recommended to comply with the TMA.

January 2011

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### Written evidence from the Department for Transport (ETM 25)

1. The Government welcomes the opportunity to outline in this memorandum our approach to ensuring effective road and traffic management.

2. We set out below the evidence base on the scale and impact of congestion and our strategy for dealing with it, which brings together measures aimed at ensuring drivers have the information they need before and during their journeys, supporting responsible driving, managing disruption more effectively, and increasing the effective capacity of road networks.

3. In line with the Government's commitment to localism we promote local accountability for local road networks by giving local authorities the tools they need to tackle problems on their network, rather than dictating specific solutions to them.

#### *Why does congestion matter?*

4. The Coalition Government's vision is for a transport system that is an engine for economic growth but is also greener and safer and improves communities' quality of life. Our approach to developing and managing our road networks is an integral part of our work to deliver that vision.

5. The 2006 Eddington Study<sup>35</sup> provided a detailed account of the role that a good transport network plays in bolstering economic growth; securing connectivity in linking people to jobs; delivering products to markets; underpinning supply chains and logistics; and supporting domestic and international trade. **A well functioning transport network can raise productivity by reducing journey times.**

6. Congestion—caused by traffic levels too close to the maximum capacity of a network, or by disruptive events—is a barrier to a well functioning transport network and so functions as a drag-anchor on economic growth. It is also environmentally damaging—because most emissions are higher from slower moving vehicles—and socially damaging—because roads operating above capacity tend to have worse accident rates.

7. At a human, individual level, congestion can be intensely stressful and frustrating. As we set out in more detail below, individual road users place great importance on the reliability of their journeys and have high expectations about the ability of network operators to deal promptly and effectively with unexpected disruption.

**8. Congestion, and the unreliability of journey times that congestion generates, are important measures of the success with which road networks are developed and managed. Mitigating the effects of congestion is a priority outcome for this Government.**

#### *How much congestion is there?*

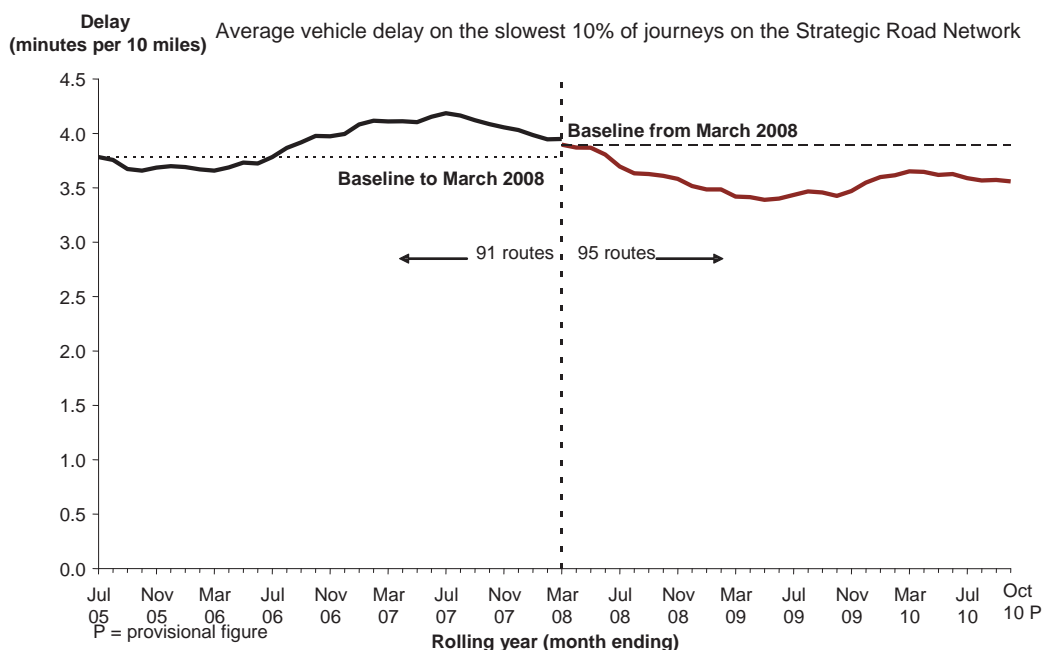
9. The Department's latest statistics show that **congestion has fallen on both local and strategic roads over recent years.**<sup>36</sup> While some of this fall has been down to the introduction of various interventions on these roads, the recent recession will also undoubtedly have had an effect, with the latest estimates showing overall traffic to have fallen by 1.8% since 2007.

10. On the strategic road network (SRN), encompassing all motorways and trunk "A" roads managed by the Highways Agency, the average delay experienced on the slowest 10% of journeys in the year ending October 2010 was 3.56 minutes per 10 miles. While up slightly on the year before, this represents an 8.7% reduction since the year ending March 2008 and is the equivalent of the average speed on these slowest journeys rising from 44.3 mph to 45.3 mph. Average delays experienced on all SRN journeys have also fallen by 4% over the same period:

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<sup>35</sup> The Eddington Transport Study: Transport's Role in Sustaining the UK's Productivity and Competitiveness, 2006

<sup>36</sup> <http://www.dft.gov.uk/pgr/statistics/datatablespublications/roads/congestion/>



11. On locally managed ‘A’ roads in England we measure speed rather than delay due to different data collection measures. The average vehicle speed on these roads during the weekday morning peak increased by 1.5% to 25 mph between the years ending September 2008 and September 2010. In addition, average morning peak person journey times—which take account of vehicle occupancies as well as numbers—on key routes in the largest urban areas became 4.5% faster over the same period.

12. While recent reductions in traffic have had the short term impact of reducing congestion and increasing peak time speeds, in the longer term there is a risk that we will see a significant growth in congestion as the economy recovers and pressure on road networks increases. **The Eddington Study estimated that the average time “lost” per kilometre is forecast to increase by 30% during the period 2003 to 2025.** Eddington estimated that direct costs of congestion to business could rise by £10–12 billion from 2003 to 2025 (in 2002 prices). Adding in the value of the lost time experienced by other travellers raises this figure to £23–24 billion per annum.

#### PUBLIC ATTITUDES TO CONGESTION

13. In developing strategies for dealing with congestion, we think it is important to understand how people experience it, and the circumstances in which it causes them most concern.

14. The Department’s latest attitudinal statistics<sup>37</sup> show a marked difference between people’s perceptions of congestion and their actual experiences of how it affects their journeys.

15. When questioned in a recent survey, over 80% of people reported that congestion was a serious problem in the country and over 90% said that the Government should be doing something about it. However, **when asked about their personal experiences, only 25% of people said that congestion regularly affected them while a larger number, 30%, said that they were rarely affected by congestion.**

16. One of the key results from the survey was that people perceive **the main problem of congestion to be not the average time increase caused but journey time unreliability.** When asked why congestion was a problem three in ten said it was because of the uncertainty it created over their journey times while only one in ten said the waste of their time was a problem.

#### OUR APPROACH TO REDUCING CONGESTION

17. Our approach to tackling congestion is a practical response to the needs of motorists who travel on our networks every day, starting from the perspective of the motorist rather than that of the infrastructure provider, whether that be the Highways Agency or a local Highway Authority. We seek to provide road users with access to the information they need when they decide to travel, when they plan their journeys, and to respond to conditions as they are travelling. We seek to ensure that our current road networks offer a good service to those who use them, by doing a fully professional job of managing and reducing the impact of disruptive events on the strategic road network and giving Local Authorities the tools they need to do the same on their road networks, and by using capacity fairly and efficiently. And, looking to the future, we are making best use of

<sup>37</sup> <http://www.dft.gov.uk/pgr/statistics/datatablespublications/trsnstatsatt/roadcongestion>

the funding we have available to mitigate the most serious congestion, safety or quality of life problems, by carefully targeted investments in management systems or capacity.

18. Only a small minority of roads are directly managed by central government—98% of all roads are managed by local highway authorities. The Government has published a Local Transport White Paper that sets out the Government's vision for a sustainable local transport system that supports the economy and reduces carbon emissions. A key part of this will be reducing congestion. It explains how the Government is placing localism at the heart of the transport agenda, and taking measures to empower local authorities when it comes to tackling these issues in their areas. The White Paper also underlines Central Government's direct support to local authorities to achieve this.

#### HELPING ROAD USERS MAKE INFORMED CHOICES

19. The Committee's inquiry rightly recognises that the behaviour of individual road users has the potential to affect the performance of road networks in both positive and negative ways. Part of our strategy for dealing with congestion is to ensure that individual drivers have the information and tools they need to make well informed decisions about their own journeys. We also have a range of plans in place to support responsible, considerate driving.

20. Through our work on alternatives to travel and sustainable travel we aim to make people aware that **they have a genuine choice about whether to travel at all**. A reduction in travel demand would bring tangible benefits—reduced congestion, reduced carbon emissions, and improved quality of life. In order to facilitate this, the Government is taking steps to increase the speed and take-up of broadband across the country for both business and leisure purposes and holding discussions with bodies such as the CBI and TUC as to how a reduction in travel demand could fit with the needs of business. Businesses are being encouraged to consider measures such as permitting home working and staggering people's working days as options which could increase productivity and reduce congestion.

21. As well as addressing the need to travel, we are also providing people with better choices as to how they travel. The Government supports congestion and carbon reducing sustainable transport modes both through investment in our public transport network and by helping Local Authorities embed sustainable travel measures in local transport planning. For example, a combination of improvements to infrastructure and services and better information provided to members of the public resulted in a 2–8% reduction in traffic in the recent sustainable travel towns project.

22. Where journeys do need to be undertaken by car, it is important that drivers have high quality information to support choices of route and timing. The Department, in partnership with transport stakeholders and technology providers, provides **journey planning and travel information to the public** via [www.transportdirect.info](http://www.transportdirect.info). This portal provides road users with dynamic route planning, based on predicted traffic speeds at a given time of day, and including real time information about road incidents. The portal can plan the quickest route, which may not be the shortest or most obvious. This reduces both journey times for the user, and also congestion on the avoided routes.

23. Drivers also need access to information once they are on the roads. On the strategic road network, on-road traffic officers are backed up by regional and national control centres, which also **keep drivers informed through real-time traffic information**, by setting signs and by giving other service providers accurate travel advice, enabling motorists to make more informed decisions about how to avoid (and avoid adding to) congestion.

24. A new **National Traffic Information Service (NTIS)** is being introduced to replace the current PFI contract for the national control centre which expires later in 2011. The new service will provide the capability to capture and interpret traffic data and to deliver that to users of the strategic road network through a range of information channels, both directly, and indirectly through other organisations such as the travel news media.

#### SUPPORTING RESPONSIBLE, CONSIDERATE DRIVING

25. The choices drivers make while they are on the road have a major impact on both the performance of the network and the experience of other road users. Our goal is to support responsible, considerate driving, thereby avoiding accidents that, in addition to tragic loss of life, can cause large amounts of disruption and congestion.

26. Great Britain has the safest roads in the world, and the Government is committed to seeing further reductions in the numbers of people killed or seriously injured on our roads. The Government will be setting out a **new strategic framework for road safety by April 2011** setting out its vision and approach to road safety.

27. We are already improving road safety by strengthening **the way people learn to drive and are tested**, moving the focus to one of continued and lifelong learning. We have started a trial of a new learning to drive syllabus which focuses not just on vehicle control but also on the skills, attitude and understanding needed to be a safe driver. Independent driving has also been introduced to the practical driving test. We will not be publishing theory test questions in future, requiring candidates to have a deeper understanding of the Highway Code, rather than merely learning answers to published questions.

28. Many local authorities have implemented concerted programmes of work to improve road safety and in doing so have contributed towards Britain's enviable road safety record. Some of these are engineering changes, eg alterations to local roads, including signing, lining and surfacing changes, as well as revised layouts, and traffic calming. Local authorities have the power to introduce 20 mph speed limit zones. The evidence suggests that in residential streets, and in town centres where there is likely to be a conflict between vehicles and pedestrians, carefully implemented 20 mph zones can contribute to an improvement in road safety.

#### MANAGING DISRUPTION

29. Effective road and traffic management is also about resilience. The Government is keen to ensure that motorists receive a good service on the roads, by making sure incidents are dealt with professionally. This includes clearing up accidents as quickly as possible when they occur, minimising the disruption caused by street works and selfish parking and managing the impact of the weather.

30. The Highways Agency's Traffic Officer Service plays a vital role in achieving the aim of a **swifter recovery of our motorways after accidents**; it now attends a daily average of 375 incidents affecting "live" lanes. Following dispatch, traffic officers arrive at over 80% of these incidents within 20 minutes, on the busiest routes during the day-time. Because we clear incidents more quickly, incident-related congestion is minimised and the chance of further incidents is reduced, thereby delivering substantial reliability and safety benefits.

31. A key action in the Department's business plan is "to work with the Home Office to review police investigation/closure procedures for motorway incidents." The review is focusing on identifying further improvements that could be made in managing serious incidents on the motorway network. The Department is working closely with the Association of Chief Police Officers, Highways Agency and Home Office in delivering the review which will be completed in January 2011. We are committed to ensuring that any improvements identified from the review are taken forward by December 2012.

32. Works in the highway (**street works**) are vital to maintain the supply of essential utility services on which households and businesses all depend, but impose costs on the economy and society estimated to amount to £4.2 billion a year. Aside from the motorway and trunk road network, it is for local highway authorities to manage and coordinate works on their roads to support their wider **network management duty**, which was put into place under the Traffic Management Act (TMA) 2004. An initial evaluation carried out in 2010 concluded that the network management duty was proving effective, though there was still room for improvement.<sup>38</sup>

33. The TMA also included powers for local authorities to run **street works permit schemes**, which substantially strengthen authorities' ability to control and coordinate works. Early progress of schemes in London and Kent has been encouraging, and local authorities will be responsible for evaluating their performance. As part of its commitment to the localism agenda and reducing bureaucracy, the Government will be bringing forward proposals by April 2012 to allow schemes in England to go ahead without the Secretary of State's approval.

34. Building on existing permit schemes, we are also currently developing proposals to increase the financial penalties for overrunning street works (legislation brought forward by October 2011), and to pilot a "lane rental" approach for the most traffic sensitive roads (legislation brought forward by December 2011). Importantly, looking beyond regulatory levers, we believe that there is considerable scope for the utilities sector to deliver strong good practice initiatives, and we are supportive of the sector's work to develop a transparent performance scorecard.

35. The responsibility for **tackling selfish and disruptive parking** also lies with local authorities, the vast majority of which have now adopted civil parking enforcement powers. We now want to help local authorities understand their performance, so we have recently provided a new self-assessment tool that enables them to compare their policies and services to those of the most effective authorities. We are also considering proposals from English local authorities outside London for powers that would enable them to apply a wider range of penalty charges, and to help keep traffic flowing by enforcing a wider range of traffic contraventions.

36. In addition to these man-made causes of congestion on our roads, the environment can cause widespread disruption. Providing a **winter service** which ensures that the highway network continues to operate effectively throughout the season is a basic component of maintaining a road. Both the past two winters and the wintry weather that we have seen already in November and December 2010 point squarely to the need to plan. Both the Select Committee and the Government (as well as others) have examined the lessons to be drawn from the way in which transport networks coped with severe winters, but the Department believes that some local authorities have yet to put those lessons into practice in a fully effective way.

37. Following the last two winters' severe weather the Government set up an independent review examining the resilience of England's transport system, chaired by David Quarmby CBE. The review considered the resilience of our transport system to periods of severe winter weather and reported in two stages with the final report being published in October 2010. The Department has accepted all the recommendations, and where these apply directly to the Government they have either been completed or are currently being implemented. The Government continues to encourage local authorities and other transport operators to take forward the

<sup>38</sup> Evaluation of Traffic Management Act 2004 Part 2—Network Management Policy and Part 4—Street Works. Halcrow. 2010



recommendations that relate to them. Actions that the Government has taken include making arrangements for the import of 250,000 tonnes of salt, developing a monitoring portal which will help local authorities monitor how much salt stock they have and help to ensure that levels are managed efficiently, publishing a common sense guide to help shop keepers and residents who want to clear their paths without having to worry about falling foul of health and safety law.

38. In December 2010, David Quarmby was asked to undertake a further urgent audit of the performance of the highway authorities, as well as the railway and aviation sectors over the period of severe weather encountered in late November/early December 2010. This audit was published on 21 December.

39. Winters such as this year's and last have been rare in modern Britain and weather this extreme will inevitably have some impact on services. However, the measure of resilience is the speed with which we recover from these events and we need to consider whether we are now seeing a step change in our weather that might therefore justify further investment in equipment and technologies to reduce the impact of severe weather. We have asked the Government's Chief Scientific Adviser to provide advice on this subject.

#### DESIGNING IN BETTER USE OF CAPACITY

40. The paragraphs above set out a comprehensive package of measures to support motorists in planning their journeys and to ensure that local and national networks are as resilient as possible to events that can disrupt performance. But given the continuing predicted longer term growth in traffic, we will also need to ensure that we think flexibly and imaginatively about how additional road capacity can be delivered to road users in those places where it is most critically needed. In developing future plans, and in the light of funding constraints, it will be more important than ever to ensure that we are harnessing innovation in making the best use of our existing asset base, and ensuring that we adopt novel approaches to managing road capacity to meet the needs of the users.

41. As part of our future spending programme, we will be taking forward a number of **managed motorway schemes** across the country. The M42 pilot of hard shoulder running showed that the measure can improve reliability and reduce the number of accidents, delivering a substantial proportion of the benefits of conventional road-widening solutions, while securing cost savings of at least 40%.

42. Given that road capacity is often constrained by a small number of key bottlenecks, targeted interventions at these locations can make a critical difference. On the strategic road network, for example, future capacity will be needed at the Dartford Crossing and DfT is committed to embark upon a review of the options for future capacity increases at Dartford. Subject to consultation, we intend to increase charges for the Crossing in 2011 to fund any changes. At the same time, to better manage the traffic and to ease congestion, we will introduce free flow charging from 2012, and more immediately, we will lift the charges at times of severe congestion to aid flow through the charging plaza.

43. At a local level too, highway authorities' decisions about road layout, the allocation of road space and other traffic management measures at key pinch-points (such as major junctions, river crossings, etc) are vitally important. Well-designed interventions at these critical locations can directly improve conditions for all road users, but they can also have other indirect benefits: where quicker and more reliable bus journeys encourage people to switch to public transport, overall traffic levels can be further reduced. Dedicated lanes and traffic signal priority for buses or trams can reinforce these positive impacts where local circumstances permit, but care needs to be taken to avoid unjustified adverse impacts on general traffic. The injustice of the M4 bus lane (see below) is a case in point.

44. The Department for Transport works to **build up the expertise of traffic professionals** by issuing evidence-based advice on road infrastructure and design. DfT's advice seeks to help local authorities design streets in a way that achieves their desired outcomes. Our advice covers designing streets to encourage sustainable transport choices as well as how to accommodate various pressures on local road networks in a way that minimises delay and conflict between different road users.

45. In cities, we have seen benefits from **consistent use of established technologies**, in particular, the Urban Traffic Management and Control (UTMC) programme. UTMC systems use a common database to share relevant information between individual Intelligent Transport Systems, such as traffic signal control systems and bus priority, often all managed from the same control centre. These services can be provided individually, but greater benefits can be gained by integrating them into a UTMC system.

46. Finally, we are taking steps to put right management measures which are simply not making sense for motorists—our **suspension of the M4 bus lane** and opening it to all traffic in December 2010 ends the injustice suffered by thousands of drivers who used to sit in traffic next to an empty lane. We are monitoring the impact of the suspension over a period of 18 months, but our intention is to scrap the lane permanently once the London 2012 Olympic Games are over.

#### INVESTMENT IN OUR ROADS

47. Despite the difficult fiscal climate, there is a place for **targeted investment in our strategic roads** within our strategy to improve congestion, safety and environmental benefits to users of our road networks on our roads, and to ensure continuing high standards of road maintenance.

48. In October, we announced 14 new schemes to start construction by 2015, and funding to complete a further eight. Funded projects included major improvements to the M60, M62 and M1 around Manchester, Leeds and Sheffield, dualling the last stretch of single carriageway on the A11 to Norwich and completing upgrades to the M25 around London. Further schemes will go ahead after 2015.

49. Two of the 14 schemes are only affordable because of procurement efficiencies realised on the other 12. If we were not driving down costs, we would not be able to realise more than a billion pounds of public benefit. Eleven of the schemes are managed motorways, which were discussed in more detail above.

50. In addition to spending on our larger roads, we are intending to commit **£1.5 billion to local authority major transport schemes** in the Spending Review period. Some of these will contribute directly to better traffic management, such as Urban Traffic Control technology schemes in West Midlands and Greater Manchester. Many others seek to reduce congestion both now and in the future and make journeys more reliable, including high quality public transport schemes that aim to make using public transport a real option for people.

51. The Government is also providing funding to help **local authorities maintain their roads**. The Department is providing £3.042 billion in capital allocations for highways maintenance to local highway authorities in England (outside London) over the Spending Review period. In addition, revenue funding from the Department of Communities and Local Government can be applied to highways maintenance. It is for each local authority to decide where maintenance is needed on their networks, and what treatments are appropriate.

52. Further funding will be available through a **new £560 million Local Sustainable Transport Fund**. This has been established to support local authorities in developing sustainable transport packages which help build strengthened local economies and reduce carbon emissions. Guidance for local authorities on the Local Sustainable Transport Fund and how to apply to it has been published on the DfT website alongside the White Paper.

#### CONCLUSION

53. In this evidence, we have outlined how our approach to tackling congestion starts with informing effective choices for the individual citizen, supports effective network management, resilience, and intelligent use of capacity, and provides for targeted efficient investment of public funds. This approach—targeted, localist, and citizen-focused—ensures that the decision makers at each stage in the process have the tools and the information they need to play their part in managing or mitigating the impacts of congestion on the economy, environment and society,

54. For our part, we seek a new understanding with the motoring community, where we undertake to play our part in removing and reducing sources of frustration (from the unfair M4 bus lane to poorly managed street works) while expecting in return safe and responsible road user behaviour.

55. The Government welcomes this opportunity to submit evidence to the Committee's inquiry, and looks forward to meeting with the Committee in the Spring.

*January 2011*

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#### **Supplementary written evidence from the Department for Transport (ETM 25a)**

When Norman Baker and I appeared before the Transport Select Committee on 14 June, we promised to write to you to clarify some of the points raised.

#### Q324—USE OF THE M4 BUS LANE

Since the suspension of the M4 Bus Lane on 26 November 2010, journey times have shown an improvement in line with our modelled predictions. Initial investigations currently show an improvement in average daily journey times of approximately 40 seconds from M4 Junction 4 to J1 in an eastbound direction. However, further in-depth analysis will be carried out during 2011 to validate these early conclusions. All related correspondence—both critical and complimentary—has reduced considerably since the end of November 2010.

#### Q331—STATUS OF THE ITS TOOLKIT

The ITS Toolkit is a website providing guidance and best practice to local authorities wanting to implement Intelligent Transport Systems. Until September 2010 the Toolkit was hosted and managed under contract; following the expiry of that contract the Toolkit was brought back in-house and is now hosted on the Department for Transport website.

At present no funding has been allocated for the active management of the ITS Toolkit, although it remains available for local authorities to access and was updated in spring 2010. As resources permit, I will consider the future of the Toolkit, including alternative models for delivery which could involve local authorities.

#### Q342—POWERS TO CHARGE UTILITIES UNDER THE 1991 STREETWORKS ACT

The Committee asked why some sections of the New Roads and Street Works Act 1991 had not yet been brought into force. As Norman Baker stated in his evidence, there are sometimes very good reasons why sections are not brought into force. While there is more than one section of the Act which has not been brought into force, we know that s.78 has been raised by several of your witnesses in their oral evidence. As such, we would like to explain our position on this section in greater detail.

Bringing s.78 of the New Roads and Street Works Act into force and laying suitable regulations would allow local authorities to require contributions from statutory undertakers to the cost of specific remedial works or to the general costs of an authority maintaining its roads (to compensate for what the sector term “long-term damage”, ie damage caused to the whole road’s structural integrity by excavations that is not necessarily easily attributable to any one set of works).

We certainly sympathise with local authorities’ concerns and with the “polluter pays” principle, however we are yet to be persuaded that s.78 would offer a workable and proportionate solution that creates the right incentives for utilities to reduce future damage. We are concerned that these costs would simply feed through into utility bills rather than changing utility companies’ behaviour for the better. So it would still be households and businesses who ultimately bear the costs of long-term damage, whether through taxation (as now) or through utility bills (as it would be if s.78 was brought into force.) Bringing s.78 into force would also be inconsistent with the Government’s aim to reduce regulatory costs to business. Accordingly, the more pragmatic approach is to seek to reduce the extent of long-term damage costs through a greater focus on high-quality reinstatements. There is an existing statutory Code of Practice setting out the standards to which highways must be reinstated (last revised in 2010), and highway authorities have powers to recover fees for inspecting a sample of reinstatements.

#### Q349—REGULATIONS ON THE PLACEMENT OF NEW UTILITIES CONNECTIONS

The Committee also asked whether there were any regulations about where utilities could site their apparatus in new developments. There is no such legislation originating from this Department, with most of the responsibility sitting with DEFRA and CLG.

DEFRA advise that the design (layout) of sewerage systems serving new property is largely governed by Building Regulations if the sewers are not to be adopted as public sewers. If the sewers are to be adopted as part of the public system they are regulated by design and construction standards issued by the water and sewerage industry (the guidance is known as “Sewers for Adoption”). CLG also provide guidance on the location of utilities within new developments. I would also note that it is in the best interests of utilities companies to make their assets easily accessible, and not to site them where works would cause disruption.

I mentioned in my evidence the research project into innovative engineering solutions for road and street works that the Department is part funding. The Committee asked for further information and I attach the press notice released by the Department (Annex A).

#### *Motorcycle Safety & Motor Racing*

At the hearing, you asked both me and Norman Baker about our views on cycle and motorcycle safety (Q357). During my reply, I said that I was particularly concerned that motorcycle casualty numbers had risen 4% in the last year for which we have records. Sadly, I was confusing my figures; and I should have said that motorcycling fatal and serious casualties *fell* by 4% in 2009, which was proportionately smaller than the fall in total road casualties and lower than the fall for car users and pedestrians. I would like to apologise unreservedly if I have misled the Committee.

This error does not detract from the fact that I take motorcycle safety extremely seriously. Fatalities on motorcycles per mile driven are higher than any other mode, and hence I am personally committed to improving rider safety. As I said in my response, this involves significant improvements to motorcycle testing, and to developing post-test skills, as well as improving awareness of motorcycles amongst other road users.

While clarifying this point, I would also like to offer a minor correction on another of my statements around the procedures for approving road motor races (Q365). I explained to the Committee that a road race requires an act of parliament before it can go forward. This is correct for all on-road motor events that involve some kind of race or trial of speed. However, this can be taken forward as a private act of Parliament, and does not require the approval of the Secretary of State or myself. This arrangement dates back to 1930, and not 1928 as I originally suggested.

Following the Committee’s interest (Q355 & 356), I also attach a timetable of actions for the review of motorway incidents (Annex B).

RESEARCH GRANT TO TFL—PRESS RELEASE PROVIDED 10 MAY 2011 AT 10.00

“£1 million development fund for technology to cut road works disruption”—announcement made jointly by Transport Secretary, Philip Hammond and the Mayor of London, Boris Johnson.

Department for Transport (DfT) and Transport for London (TfL) are providing equal funding for an 18-month project by the Transport Research Laboratory (TRL) to examine innovative engineering techniques. This could result in utilities using temporary road surfacing methods and fast-setting replacement road surfaces, which could allow utility companies to carry out more work at quieter times and re-open roads during peak traffic periods to reduce delays and disruption.

Additionally it was announced (9 June) that another seven London boroughs (Greenwich, Harrow, Lambeth, Newham, Richmond, Southwark and Waltham Forest) had been approved to run permit schemes and this should further assist the reduction of delays across London as a whole (pres notice would 9 June 2011 9.30)

BACKGROUND

A joint £1 million fund to research and develop new technology to reduce the disruption caused by road works was announced today by the Secretary of State for Transport, Philip Hammond, said:

“Everyone knows how frustrating the delays caused by road works can be, which is why we want utilities and local authorities to be able to make the most of the technology available to help keep disruption to a minimum.”

“This project will investigate how innovative engineering can provide greater flexibility and allow more road works to be carried out at times when the travelling public will be least inconvenienced.”

“By using technology to its full effect, as well as making sure that local authorities across the country have the powers they need, I hope that we can see fewer needless jams caused by road works.”

It was also confirmed today that work is progressing at the DfT on drafting regulations that would allow local authorities to run lane rental schemes. The Mayor has asked Transport for London to develop proposals for a targeted lane rental scheme on the capital’s busiest roads at peak times. That would incentivise utilities and other companies to carry out road works during the less busy periods of the day to reduce their impact on the travelling public.

Consultation on the new regulations and TfL’s proposals for a lane rental scheme will take place over the summer and, if approved, regulations would be in place by the end of the year, allowing the Mayor to apply to have the country’s first lane rental scheme up and running in London in the first half of 2012.

The Mayor of London, Boris Johnson, said:

“Having a lane rental scheme in London will hugely contribute towards clearing unnecessary disruption from the capital’s roads. Every company working on our roads wants to do so in the most cost effective way possible and lane rental will give them the clearest incentive to do so. But this is not about penalising utility companies. We want to help them work as efficiently as they can, which is why we will pay for the research of new technology so that they are able to carry out work as swiftly and with as little disruption as possible.”

London’s Transport Commissioner, Peter Hendy, said:

“I am delighted that London is set to be in a position to introduce a much needed lane rental scheme from early next year, and we continue to actively work with the Mayor and DfT to do so. The funds TfL and the DfT are making available to develop new construction techniques will ultimately contribute towards keeping more roads open during peak times while works are still carried out off-peak and during the night.”

“Only 20% of utility road works are currently carried out during off-peak hours on the most congested parts of the Transport for London Road Network, compared to over 70% of TfL’s work. By developing these new techniques to enable road works to be done more rapidly, we can make sure that this research meets the needs of all respective industries, and ultimately reduces disruption and congestion on the capital’s major roads.”

*Permits Schemes*

A scheme which gives councils greater power to co-ordinate works on their roads will extend into a further seven London boroughs after they received the go-ahead (June 2011).

The seven have all been successful in their application to run road works permit schemes. The schemes will allow the boroughs to require anyone carrying out road works to apply for a permit in advance and to set conditions on timing, coordination or the amount of road space to be left available to road users during the works. Those companies who break the terms of their permit or work without a permit can be fined.

## Annex B

## DELIVERY OF THE MOTORWAY INCIDENT REVIEW

The joint review carried out by DfT, ACPO, the HA and the Home Office looked at what needs to be done to reduce the duration of motorway closures following incidents. A preliminary report on investigation / closure procedures for motorway incidents made ten recommendations, which will be progressed by a high-level multi-agency delivery plan (action plan).

The majority of the review's recommendations are expected to be completed by the end of the year, and we remain on track to deliver on a further business plan commitment to set up and implement measure to reduce congestion caused by incidents by December 2012.

## KEY RECOMMENDATIONS AND INDICATIVE TIMESCALE—AS OUTLINED IN THE HIGH LEVEL DELIVERY ACTION PLAN

<i>Recommendation</i>	<i>Implementation date</i>
ACPO, in consultation with other incident management responders, to review the Road Death Investigation Manual to ensure it strikes an appropriate balance between carrying out a thorough investigation of an incident and keeping traffic moving.	By end of 2011
DfT/HA and ACPO to explore the use of new technology to help speed up incident management, including consideration of the wider roll out of laser scanners to police forces and identifying/assessing future technologies.	Consider laser scanning wider rollout summer 2011 & future technologies by mid 2012
Police training revised to improve officers' understanding around the impacts that lengthy closure procedures can have on road users and the economy.	Delivered mid 2012—before the Olympics
Regular multi-agency training exercises to test a wide range of motorway closure scenarios carried out—and best practice guidance developed from this. Particular focus given to examining the factors which contribute to long delays—and developing guidance to ensure motorways are not closed any longer than necessary.	Delivered mid 2012—before the Olympics December 2011
DfT explore the role of police, fire, ambulance, HA staff and recovery agents in more detail to identify and agree specific issues which need to be addressed to improve incident durations.	December 2011
The HA carry out further analysis to help understand the causes of regional variations in motorway closure durations and see what lessons can be learnt.	December 2011
The HA examine how it can improve the information it provides to road users to alert them to incidents—and provide better journey advice to keep queues to a minimum.	Early 2012
A new performance monitoring framework introduced and performance data on incident durations and clear up times published to track progress over time.	Early 2012
Best practice case studies regularly developed by the HA and shared with all incident management responders.	Autumn 2011 onwards

June 2011

## Written evidence from National Grid plc (ETM 28)

## EXECUTIVE SUMMARY

1. National Grid believes existing road and traffic management legislation is sufficient to manage street works if implemented and applied by Street Authorities consistently, and equally to all works promoters.

2. We are certain that collaborative working between all stakeholders involved in road and street works<sup>39</sup> would provide the opportunity to improve performance and reduce costs under the current regime, thereby providing benefits to energy consumers and UK plc. We are proactively engaging with all parties to drive this forward.

3. The current application of legislation is ineffective and is leading to additional, unnecessary but also unavoidable costs which will be passed onto energy consumers. We recognise this is an important issue, especially given the current economic climate. So it is very important that National Grid and its street works stakeholders work together towards a common goal; reducing street works costs and minimising disruption to the public.

<sup>39</sup> Road works refers to works by Street Authorities to maintain the road network, street works refer to works by parties such as statutory undertakers (including utilities) who have apparatus in the street.

## INTRODUCTION

4. Energy is essential for our domestic and working lives. National Grid carries out street works for the purpose of providing energy safely and reliably to end consumers. Due to the nature of National Grid's statutory obligations street works are essential for public safety and security of energy supply. Street works legislation has a major impact on our operations. In 2010–11 National Grid will have submitted approximately 372,000 notices and permits.<sup>40</sup>

5. Parity between works promoters, including Street Authorities, is essential to ensure that all parties are incentivised to carry out work in an efficient and timely manner.

6. We are working closely with stakeholders to improve the coordination of works so as to minimise the impact of our street works.

7. Permit schemes and their associated conditions have added significant complexity to the street works regime and removed our statutory rights to undertake works. The inconsistent application and format of such schemes between Street Authorities has limited our ability to optimise processes and has had a negative impact on our productivity, hence prolonging total works duration in some cases. This leads to unavoidable increased costs which will ultimately pass through to energy consumers and UK plc.

8. It is crucial that network companies carrying out street works are appropriately incentivised to minimise costs and disruption. National Grid advocates the introduction of a national permit scheme with consistent requirements and conditions which can be deployed in locations where a permit scheme is deemed appropriate against a set of transparent criteria. This would allow rationalisation and optimisation of processes by those undertaking works and provide a real incentive to improve the efficiency of street works and deliver net benefits to all parties.

9. National Grid does not believe that lane rental will necessarily deliver any benefits. Proposals should be carefully analysed and only those which demonstrate clear net benefits should be considered for implementation, as the costs must be ultimately passed on to energy consumers.

10. Proposals for the devolution of approval of permit schemes would risk increasing inconsistency between Street Authority requirements, thereby significantly increasing both administrative costs, the regulatory burden for utilities and further impacting on productivity and congestion.

11. It is in National Grid's interest, as much as it is in the interests of consumers and the public that we are able to complete street works in the minimum possible time and causing minimum disruption to the local community. So we are committed to working with all stakeholders on these issues to jointly identify and deliver the improvements required to enable effective street work management.

## NATIONAL GRID AND STREET WORKS

12. National Grid owns and operates the gas transmission system throughout Great Britain and distributes gas throughout the heart of England to approximately eleven million homes, schools and offices. Its primary duties in the UK are to develop and maintain efficient networks and also facilitate competition in the generation and supply of electricity and the supply of gas.

13. National Grid undertakes street works for four main reasons:

- safety;
- security of supply;
- connecting new or enhancing existing customers' supplies; and
- diverting apparatus for major transport or urban regeneration projects.

In practice, for most premises which we are under a duty to connect to the gas network (as dictated by the Gas Act 1986 as amended), there is no practical alternative but to install pipework in streets. Safety is our top priority and our responsibilities in this area are driven by the Gas safety (Installation and use) Regulations 1998, Health and Safety at Work Act 1974, Pipeline Safety Regulations 1996, Gas Safety Management Regulations 1996 plus associated approved Safety Cases. We are required to publish and comply with plans to ensure security of supply under our Gas Transporter Licence granted under section 7 Gas Act 1986 (as amended) and requirements to divert pipes and apparatus are driven by the New Roads and Street Works Act (NRSWA) 1991, Traffic Management Act (TMA) 2004, the Highways Act 1980 and the Town & Country Planning Act 1947 (as amended 1990).

14. Due to the nature of National Grid's obligations street works are unavoidable. Most of National Grid's street works relate to work on the low pressure gas distribution network within four of the eight regional gas distribution networks.

15. National Grid seeks to minimise disruption caused by street works by ensuring compliance with the existing legislation within NRSWA 1991 and the TMA 2004. In 2010–11 National Grid will have submitted

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<sup>40</sup> Data based on figures for 9 months April–December 2010 pro rated to April 2011.

approximately 372,000 notices and permits.<sup>41</sup> The stages of compliance and noticing requirements for different types of works are illustrated in Appendix 1, for example for planned major works the noticing process starts at least 90 days prior to undertaking works, with six notices required in total.

16. National Grid seeks to deliver world class street works, with safety as the number one priority. We share best practice with companies across the industry, through regional Highway Authorities and Utilities Committee (HAUC) conferences and National Joint Utilities Groups (NJUGs) Street Works Forums. We are fully supportive of NJUG's submission to this inquiry.

17. National Grid has been very active in the development of a range of programmes to reduce the impact of our works on both road users and the general public. We helped develop and are a signatory to the National Code of Conduct which we launched with NJUG, Transport for London and the London Mayor in June 2010 following the success of the Mayor's London Code of Conduct. The Code's features include:

- Assisting local authorities in the development of permit schemes to ensure they are workable and effective at tackling disruption.
- Sharing long term plans for major street works projects between local authorities and utilities to allow greater opportunities for coordinating works.
- Promoting the use of minimum-dig technology to reduce the duration of works.
- Encouraging the use of plating over road excavations where safe and practical to do so.
- Striving to work outside of peak hours wherever possible to reduce excessive traffic delays.
- Providing work site information boards at all sites with contact details and updates on progress.

18. It is important to make clear that just as it is in the interest of energy consumers and the public that National Grid completes its street works as quickly as possible and with minimum disruption it is also in National Grid's interest. We are committed to working with the Department for Transport, Street Authorities and other stakeholders to ensure that congestion and disruption to the general public is minimised without imposing unnecessary costs on energy consumers. We feel certain that with a common goal in mind, it is possible to develop an effective regime to deliver the best outcome for all stakeholders.

#### PRICE CONTROL

19. National Grid is funded by a price control mechanism which is agreed with and set by Ofgem, the energy regulator. Historically the Price Control was based on a retail price index model with an element of efficiency savings. This approach has served the customer well; however the UK energy sector is now facing a number of new challenges in providing safe, reliable and secure energy which will also be sustainable in a decarbonised future. In response to these challenges, Ofgem has recently introduced a new regulatory framework known as RIIO.<sup>42</sup>

20. Under the RIIO model, network companies are required to develop well-justified business plans setting out their outputs and how they propose to deliver these. Stakeholder engagement is a key element of this and National Grid is currently consulting with a wide range of stakeholders to ensure we fully understand their priorities. These will, in turn, help us to develop our business plans to ensure that, alongside delivering energy safely, reliably and efficiently, we are funded appropriately by Ofgem to deliver the street works service that our customers and stakeholders want. Recent feedback from our first stage of stakeholder engagement indicates that there is recognition and concern that increased costs incurred as a result of street works legislation will be passed through to energy consumers. Our stakeholders also believe that networks should be incentivised to minimise cost impacts of street works where it is within their control.

21. We welcome the opportunity to share this feedback and our resulting proposals with government and other utilities in order to help shape improvements and deliver a mechanism that could be rolled out across works promoters.

#### *Opportunities to improve performance of the current regime*

22. From our experience of the current regime we have identified potential improvements in the areas of measurement, parity and best practice, work co-ordination, and permit scheme consistency, conditions and transparency which we believe could deliver a more effective regime and incentivise improvements.

#### *Measurement, parity and sharing best practice*

23. National Grid would welcome a defined method for measuring congestion and its root causes. This would facilitate an assessment of the impact and effectiveness of the current regime, enable targets to be set and progress to be mapped.

<sup>41</sup> Data based on figures for 9 months April—December 2010 pro rated to April 2011.

<sup>42</sup> RIIO: Revenue = Incentives + Innovation + Outputs. The RIIO model offers network companies incentives for securing investment and driving innovation. The model aims to ensure the delivery of sustainable energy networks for current and future customers at the lowest cost.

24. Independent studies have indicated that only 10% of congestion is attributable to road and street works.<sup>43</sup> Utilities undertake approximately 50% of the works in the street with the other 50% accounted for by Street Authorities' work. Therefore just 5% of congestion is attributable to utility works.

25. National Grid believe that to tackle disruption effectively legislation needs to show parity between all works promoters, including Street Authorities, so that all parties are incentivised to carry out work in an efficient and timely manner.

26. It should be noted that different stakeholders will measure regime success by different parameters. Statutory undertakers will be driven by customer service, cost and productivity, aiming to complete works safely in the shortest time possible, causing minimum disruption and protecting business reputation.

27. Key Performance Measures (KPMs) applied across all works promoters could be used to demonstrate performance, identify best practice and incentivise improvements. Currently there are no KPMs available from the Street Authorities to measure the performance of those undertaking works under either the NRSWA or TMA regimes. National Grid therefore welcomed the requirement to produce precise KPMs within the London Permit Scheme Section 22.8.5, 6 & 7, unfortunately however this has not yet been completed and the KPMs to measure the Authority's own works are optional. In order to ensure effectiveness KPMs need to be developed and applied equally to all works promoters including Street Authorities.

28. Benefits could also be gained from the inclusion of all works promoters in areas where Permit Schemes are introduced. This would enable benchmarking; the identification and sharing of best practice and the introduction of incentives schemes (for example by rewarding upper quartile performance). Currently a substantial part of Street Authorities' works are excluded from permit schemes. For example Section 22.8.1 of the London Permit Scheme excludes "highway works, defined in Section 86 (2) of NRSWA as works for road purposes" (ie works for the maintenance of the highway, improvement works, any works associated with traffic signs and the construction of crossing for vehicles in footways) from having to comply with the scheme. In contrast all works undertaken by utilities such as National Grid, are subject to the permit scheme requirements. We believe this arrangement to be inequitable and not therefore in the best interests of customers.

29. National Grid welcome the creation of the four Task Forces set up under the TMA legislation under London Permit Scheme section 22.7. These should provide a good opportunity for identifying and sharing best practice. To this end, we would welcome early communication of the Task Forces' objectives and ongoing transparency regarding attendance and progress.

#### *Co-ordination of works*

30. National Grid works closely with stakeholders to improve the coordination of street works so as to minimise the impact to the lowest reasonable level.<sup>44</sup>

31. National Grid supports the drive to co-ordinate street works under both Sections 59 and 60 of NRSWA in order to reduce disruption and congestion. Section 59 stipulates that it is the duty of the Street Authorities to use their best endeavours to co-ordinate works. Improvements in co-ordination both within and between Street Authorities and all works promoters could be delivered through process development, more frequent co-ordination meetings and incentivisation of collaborative working. At present there is only limited proactive approaches by Street Authorities and work promoters to co-ordinate the works and therefore a failure of duty to effectively bring together undertakers proposing works. Where co-ordination results in trench sharing the scheme regulations place a large onus on the initial promoter to instigate all the relevant permitry and take ownership of the final reinstatement and appropriate guarantee period, so even with reduced fees the incentive to co-ordinate works may not be sufficient to offset the substantial risks borne by the initial promoter. Hence the understandable lack of collaborative working between utilities within the same streets.

32. In addition co-ordination of works could be further improved by the mandatory contribution of all works promoters, including Street Authorities to a transparent and easily accessible central works register. National Grid consistently uses the London Central Works Register however this is not mandatory and the number of both participating Permitting Authorities and utilities makes it only partially effective.

33. Efficiencies could also be achieved by improved communication processes between Local Authority departments. The circulation of notices within Local Authorities would negate the need for works promoters to actively coordinate interdepartmental engagement within the Authority where works involve more than one department (e.g. excavation near trees and parks).

#### *Permit scheme consistency, conditions and transparency*

34. National Grid advocates the introduction of a national permit scheme with consistent requirements and conditions which can be deployed in locations where a permit scheme is deemed appropriate against a set of transparent criteria. In their current format permit schemes and their associated conditions have added

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<sup>43</sup> 'Utilities' Street Works and the Cost of Traffic Congestion' Professor Phil Goodwin, 2005

<sup>44</sup> For example in 2010 we worked in partnership with Severn Trent to carry out essential asset renewal work in Bewdley, Worcestershire. By working together and using one contractor we significantly reduced the length of time required to complete works.



complexity to the regime and in certain respects conflict with the statutory rights to undertake works conferred to gas distribution network owners under the Gas Act. The fact that different Street Authorities may develop varying schemes, or may interpret the same scheme in different ways and with different levels of rigour leaves utilities unable to define one “best-practice” approach to managing permittry, thus creating inefficiencies across the entire work planning and delivery process. This unavoidable inefficiency and resultant reduced productivity generates increased costs which ultimately pass through to the energy consumer and UK plc.

- Site productivity: The negative impact on site productivity has been evident from the analysis of the impact of the London Permit Scheme on our essential mains replacement programme activity (Appendix 2). Due to conditions imposed works are taking longer to complete and congestion may be worsening as a result (Appendix 3).
- Administrative support functions: Differences between and within permit schemes also necessitates a multitude of different administrative processes to be undertaken by those applying for permits in more than one geographic area. For example the three current schemes in operation or preparation covering areas where National Grid undertakes work (London, Northampton, Manchester) are being implemented in very different ways in terms of both interpretation and application (Appendix 4).

35. A single consistent permit scheme would allow rationalisation and optimisation of processes by those undertaking works and provide a real incentive to improve the efficiency of street works and deliver net benefits to all parties. As with current proposals we would support Street Authorities deciding whether or not to deploy the scheme or retain the noticing system under NRSWA.

36. Cost benefit analysis should be applied to all proposed schemes to ensure there is a net benefit across all elements. The blanket application of permit requirements in some schemes such as the London Permit Scheme to all classes of road, whether they be major routes where congestion is an important issue or side roads, where there is little if any impact, imposes costs that are disproportionate to the benefits to be gained.

37. Benefits of reduced administrative burden could also be accrued by aligning central systems with the legislation.

- The advent of Permits has led to a discrepancy between the Code of Practice for permits (in which works should be co-ordinated) and the ETON Technical Specification (under which applications are made). These two pieces of regulation do not allow fluency in the implementation and interpretation of the legislation (both fall under TMA 2004). Due to discrepancies between the interpretation of requirements by the permit applicants and the Permit Authorities the system does not comply with what is stipulated in the Legislation. Thus a greater administrative burden is placed on the permit applicants to make the system and processes work via the application of ‘work arounds’ (Appendix 2).
- Systems are also currently incompatible with the requirement for Permit Authorities to attach conditions. In National Grid’s practical experience the onus falls on the applicants to meet this requirement (Appendix 2). Permitting meetings between works promoters, developers, Department for Transport and the Authorities have failed to make any impacts on getting the systems changed due to the costs associated with amendments.

38. It would also be beneficial to improve transparency over grounds for refusal of permits or application of conditions, and clear and consistent rules about what must accompany a valid permit application or a Permit Advance Application.

#### *Additional comments on the proposed future regime*

##### Lane Rental Proposals

39. National Grid do not believe that lane rental will necessarily deliver any benefits. Proposals should be carefully analysed, only those which demonstrate clear net benefits should be considered for implementation.

40. Any proposals taken forward should aim to drive early completion of works. There should be incentives for clearing site earlier than predicted and refunds available for those who succeed in doing so. There needs to be clear criteria outlining when and where schemes can be imposed. To maximise effectiveness and benefits any scheme should be targeted at pinch points on the strategic road network and should only be introduced upon the removal of other requirements (ie Permit and noticing requirements) otherwise there is a danger of further regulatory and cost burden. There is also the need to recognise that Lane Rental costs will be unavoidable by utilities such as National Grid undertaking essential work and that these costs will be ultimately passed on to energy consumers who are already facing higher bills from suppliers.

##### Proposal to localise powers to authorise permit schemes

41. National Grid is concerned by the proposal in Department for Transport’s Business Plan to localise powers to authorise permit schemes. Currently permit schemes are issued for consultation by Street Authorities, responses are considered by the Department for Transport and recommendations made to proposed permitting authorities to amend schemes.

42. The removal of this arbitrating policing role has the potential to create an even greater variety of permit schemes and cause huge inconsistencies between Street Authorities, resulting in a multitude of issues for utilities working across different Street Authority’s borders. This will serve to further exacerbate the issues identified above. These issues could be overcome by the introduction of a national scheme which Street Authorities could choose whether or not to deploy (see paragraphs 34–35 above).

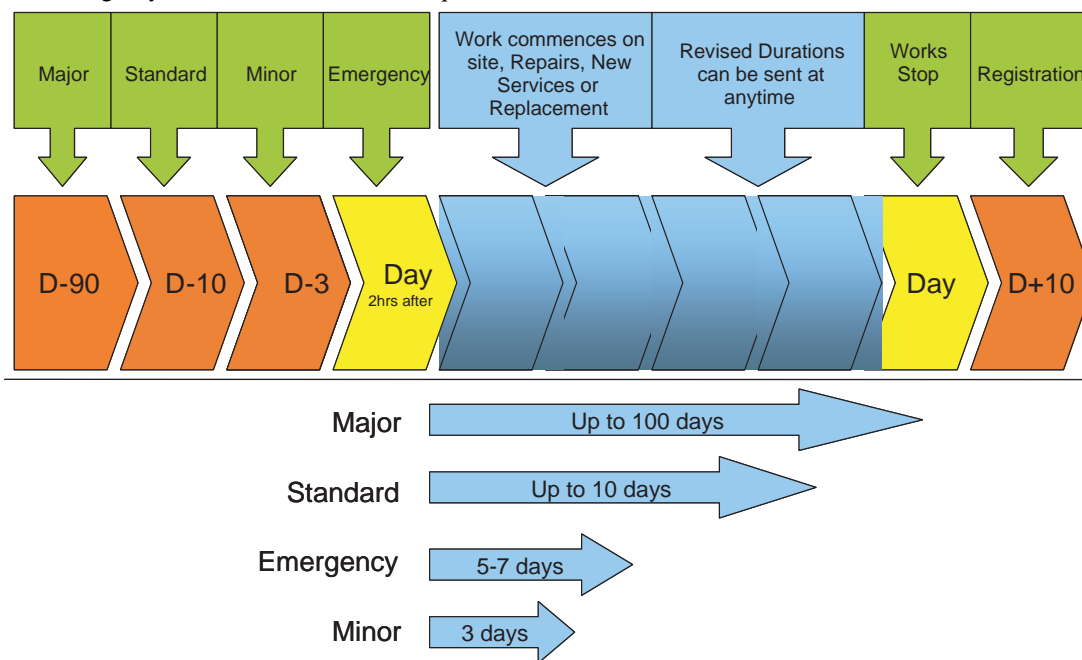
**APPENDIX 1**

**NOTICING REQUIRED (NRSWA)**

Noticing requirements are dependent upon the type of work to be undertaken.

For major works the process starts at least 90 days prior to undertaking works, with six notices required in total.

For emergency works three notices are required.



**APPENDIX 2**

**PRODUCTIVITY UNDER PERMIT SCHEMES**

Administrative Support:

At present for noticing there is just one exchange of information and the works continue:

- (a) Notice sent by National Grid informing Street Authority of works.

With Permits there is considerably more administrative burden with the potential for numerous exchanges of information:

- (a) Permit request sent by National Grid.
- (b) Permit rejected by Street Authority. Street Authority request conditions to be added.
- (c) National Grid add conditions and submit permit request.
- (d) Permit either accepted or once again rejected by Street Authority (If the permit is rejected steps b and c are repeated until agreement is reached).

On site:

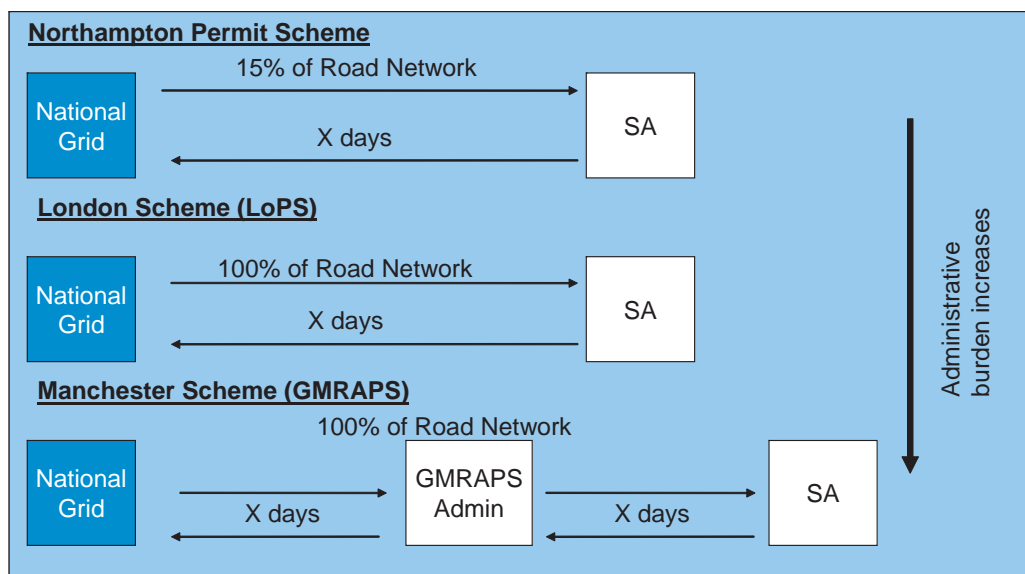
The metric “metres of pipe laid per person per week”, allows us to measure productivity within the geography of each Street Authority’s area. The graph below illustrates productivity before, during the preparation and after implementation of the London Permit Scheme across three areas, East Anglia (no scheme adopted), Outer London authorities (no scheme adopted at this time) and the Central London authorities which adopted the London Permit Scheme in January 2010.

Productivity in East Anglia increases over the timescale analysed as we realise the benefits of a number of efficiency initiatives. Productivity in the Outer London Authorities remains fairly constant whereas there is a reduction of 38% in productivity across the Central London Authorities which have implemented the Scheme. Appendices 3 and 4 further demonstrate why productivity is reduced.



## APPENDIX 4

## PERMIT SCHEME INCONSISTENCIES



Northampton's permit scheme only applies to 15% of the road network. National Grid liaises directly with the Street Authority (SA). This is in contrast with the proposed Manchester permit scheme (GMRAPS) which will apply to 100% of the road network and applications will be processed via an administration team prior to being routed through to the Street Authorities. There is therefore a greater administrative burden associated with undertaking works in the Greater Manchester area than there is in Northampton.

Productivity is impacted by the percentage of the network that schemes apply to. Where a scheme applies to all roads in an area flexibility is minimised. When there is a delay in obtaining a permit there is no scope for the works team to undertake other work in the same geographic area, resulting in significant costs which will ultimately be paid by the end consumer and UK plc.

Schemes which do not apply to 100% of the road network provide scope for reallocating teams when there is a delay in obtaining a permit, enabling the team to work in less congestion sensitive areas within the same geographic area.

February 2011

#### Supplementary written evidence from National Grid plc (ETM 28a)

*What is National Grid's process for checking the quality of street works reinstatement?*

National Grid has its own "Management Procedure for Reinstatement Monitoring"—T/PM/SW/4 for checking the quality of reinstatement. This procedure provides guidance on Works In Progress checks that are carried out by both Backfill & Reinstatement Operatives and dictates the frequency at which "completed" works (visual checks and core sampling of completed reinstatements), shall be undertaken to ensure compliance with the "Specification for the Reinstatement of Openings in Highways" (SRoH).

The New Roads and Street Works Act provides that Statutory Undertakers pay for Inspections of their works by the Street Authority.

The Sample Inspection regime is the procedure by which a street authority can regularly establish the overall performance of each undertaker operating in its area, and designed to enable street authorities to monitor undertakers' performance.

There are three stages of inspections, at which information on undertakers' performance can be obtained:

- Category A (Undertaken during progress of works—predominantly Signing, Lighting & Guarding).
- Category B (Undertaken within six months of interim or permanent reinstatement).
- Category C (Undertaken within the three months preceding the end of the guarantee period).

Highway Authorities may inspect up to 30% of undertakers' work, based on an average of the previous three years volumes, for which undertakers pay £50 per inspection. The calculation is based on inspection units generated from undertakers' workload, but it is important to consider that one unit of inspection does not necessarily always equal one excavation.

Should any Statutory Undertaker have a failure rate in excess of 10% in any category in a given quarter, then the Highway Authority may issue an Improvement Notice. Over the last five years, National Grid has only ever been served one Improvement Notice relating to Category B and C inspections. This Improvement Notice was served by Cumbria Highway Authority, and it is worth noting that that every utility working out of Cumbria received an Improvement Notice.

*What percentage of National Grid's reinstatement works are checked by local authorities? Of these, what proportion are found to have defects that require subsequent street works to repair the original reinstatement?*

National Grid produce a weekly defect exception report (IMC260) indicating the number of defects that have been received from Highway Authorities that potentially require remedial work. These are broken down by type of defect (Dangerous or Non Dangerous) and by Highway Authority. Investigation of this report allows root cause analysis to take place, to identify any trending, and specific areas of learning. Our 2010–11 performance is as follows:

- There were 83,027 registerable works activities carried out by National Grid.
- From these works there were 93,381 inspection units generated and registered with the Highway Authorities. 30% are eligible for inspection under the current regime.
- Of the total 93,381 inspection units generated, 3,643 (following the Highways sampled inspection process) were found to have structural defects with the reinstatement which required subsequent street works to repair the original reinstatement.

June 2011

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### **Written evidence from the National Joint Utilities Group Ltd (NJUG) (ETM 29)**

#### 1.0 NJUG—INTRODUCTION

1.1 The National Joint Utilities Group Ltd (NJUG) is the only UK trade association solely representing utilities and their contractors on street works issues. NJUG is a constructive organisation with a focus on promoting best practice, self-regulation and a two-way working relationship with Government and other relevant stakeholders. NJUG is also the utility arm of the Highway Authorities and Utilities Committee (HAUC(UK)) working collaboratively with local authorities, the UK Government and the devolved administrations to improve standards of road and street works in England, Northern Ireland, Scotland and Wales.

1.2 NJUG's members include the major gas, water, electricity and communications companies operating in the UK, as well as their contractors.<sup>45</sup> Including members through trade associations, NJUG represents thirty-seven utility companies and thirteen utility contractors.

1.3 This submission is focused on the three points in the call for evidence where we have particular expertise—the prevalence and impact of traffic congestion and likely future trends; the extent to which the Government and local authorities should intervene to alleviate congestion and the best means to do so; and the effectiveness of legislative provisions for road management under the New Roads and Street Works Act 1991 and the Traffic Management Act 2004.

#### 2.0 EXECUTIVE SUMMARY

2.1 Utility services are the essential fabric of the UK economy and street works are undertaken for four main reasons—safety, security of supply, to connect new customer or upgrade existing customers' supplies, or to divert utility apparatus to facilitate major transport or urban regeneration projects such as Crossrail, the 2012 Olympics and Paralympics, tram projects, or new housing developments.

2.2 Utilities are investing billions to improve the quality and reliability of these essential networks. The Health and Safety Executive has placed a requirement on gas network owners to replace all cast iron gas mains within 30 metres of buildings; the water industry continues to replace its network of water mains, which often dates back to the Victorian era, to reduce leakage, and the communications industry is investing in the next generation of broadband networks.

2.3 This investment in the essential infrastructure on which we all depend, means that the volume of utility works will not decrease for the foreseeable future. Therefore it is vital that utilities and local authorities, who have a statutory duty to co-ordinate all works in the highway, work together better to plan works and develop further innovative ways to reduce the disruption caused by both utility and highway authorities' own works.

2.4 Utilities are subject to a myriad of legislation/regulation governing their street works. Additionally, local authorities have a statutory Network Management Duty requiring them to ensure the expeditious movement of

<sup>45</sup> NJUG members include the Energy Networks Association (representing electricity and gas), Water UK (representing all water and wastewater companies), National Grid, Openreach, and Virgin Media. Our associate members are Clancy Docwra, Skanska Utilities, Balfour Beatty, Morrison Utility Services, Morgan Est, NACAP, PJ Keary, First Intervention, Carillion, Enterprise, Laing O'Rourke and AMEC

traffic and a specific duty to co-ordinate their own and utilities' works. The primary legislation regulating utility street works and the implementation of the associated Regulations and Codes of Practice has done much to reduce the unfortunate disruption that sometime arises from essential utility works. However, in order for the regulations to fulfil their full potential they need to be applied more consistently and effectively (as recognised in a previous Transport Committee Report).<sup>46</sup> Equally, if Government is to implement further measures to regulate works in the street, it must be noted that utilities undertake only 50% of the works in the street, and similar incentives that already exist for utilities, and any new regulations, should be applied to highway authority works which account for the other 50%.

2.5 NJUG and the Local Authorities, through the auspices of the national Highways and Utilities Committee (HAUC(UK)), assist DfT and the Devolved Administrations in achieving their priorities. NJUG is also driving forward numerous self-regulatory initiatives to reduce disruption and improve the quality of works, including implementing the National Code of Conduct (Section 4.0).

2.6 DfT recently revised its Business Plan to reflect Government's overarching priorities of deficit reduction, deregulation and localism. Measures include—a substantial increase in S74 overstay charges; introduction of a daily charge for every day utilities occupy the highway (lane rental); and devolvement of approval of permit schemes to local authorities. The DfT has also decided not to honour the previous Government's commitment to a one-year independent review of permit schemes.

2.7 However, Government has committed to reducing regulation and costs on business. Therefore, NJUG believes that Government support for the range of self-regulatory measures, combined with effective and consistent implementation by all local authorities of the myriad of existing regulations/legislation will deliver a further improvement in street works and reduced disruption, without the need for extra measures. Therefore, serious consideration of any additional regulations/increases should include a rigorous assessment of costs and benefits.

2.8 NJUG therefore wishes to continue to work constructively with Central and Local Government to ensure any proposals are robust and workable and do not place any unnecessary additional costs on utilities and their customers.

### 3.0 THE PREVALENCE AND IMPACT OF TRAFFIC CONGESTION AND LIKELY FUTURE TRENDS

3.1 NJUG and utilities recognise that essential street works can sometimes cause unfortunate disruption and are working hard to reduce it.

3.2 According to an independent study<sup>47</sup> by Professor Goodwin (Professor of Transport Policy, University of the West of England) utility and authority works together account for only 10% of all congestion, on an approximately 50/50 basis, meaning that just 5% of congestion is caused by utility works. The scale of disruption for which utilities are often blamed is striking in its contrast to figures provided by Professor Goodwin's report, which shows that the "great majority of works cause delays of less than 20 seconds per vehicle".

3.3 Whilst utilities continue, through a range of self-regulatory measures (see section 4.0), to reduce the unfortunate disruption essential street works sometimes cause, given that just 5% of congestion is attributable to utility works, it is clear that action by utility companies can only have a limited impact on overall levels of congestion—for example a 20% improvement by utility companies would result in only a 1% reduction in congestion.

3.4 Whereas DfT forecast in their latest report (Road Transport Forecasts 2009—Results from the Department for Transport's National Transport Model)<sup>48</sup> that the volume of traffic will continue to increase at a rate of 0.5% per annum between 2008 to 2015. However, "*the return to economic growth, predicted to begin in early 2010 and to gain strength in 2011 is likely to lead to traffic growing more strongly than the average annual rate forecast for the 2008–15 period.*"

3.5 This means that all the work utilities are undertaking to reduce disruption can only be part of the solution, and there is a risk that any improvements will be dwarfed by the sheer volume in traffic as it steadily grows. Therefore it is important to recognise this when considering further legislative/regulatory measures, with a focus on addressing traffic volumes likely to deliver greater results.

3.6 Utility works are highly regulated and are controlled through a myriad of legislation/regulations. In addition to the wide-ranging provisions of the New Roads and Street Works Act 1991 already available to local authorities to manage street works, the Government has implemented a range of new provisions under the Traffic Management Act 2004 (TMA)—see section 5.0. Additionally, economic regulators for energy and water further incentivise utilities to operate efficiently through five-yearly regulatory settlements. Whilst regulators' statutory duties vary, their central objectives are to protect the consumer, by balancing investment for the future with price levels to customers and ensuring all works are undertaken as efficiently as possible.

<sup>46</sup> Transport Select Committee Road and Pathway Maintenance Report (2003)—Recommendations 21 to 25  
<http://www.publications.parliament.uk/pa/cm200203/cmselect/cmtran/407/40708.htm>

<sup>47</sup> "Utilities' Street Works and the Cost of Traffic Congestion" Professor Phil Goodwin, February 2005.  
<http://www.transport.uwe.ac.uk/research/projects/NJUG-congestion.asp>

<sup>48</sup> <http://www.dft.gov.uk/pgr/economics/ntm/forecasts2009/pdf/forecasts2009.pdf>

3.7 However, currently there are no financial incentives for local authorities to carry out their work in a similarly efficient and timely manner even though they account for around half of all works.

3.8 Scotland has an independent road works commissioner who is able to penalise both utilities and local authorities for failures to coordinate and cooperate, which has proved to be effective at encouraging a more collaborative approach to reducing disruption. Consideration should be given to how the benefits of this approach could be realised in the rest of the UK, given how effective it has been in Scotland.

#### 4.0 THE EXTENT TO WHICH THE GOVERNMENT AND LOCAL AUTHORITIES SHOULD INTERVENE TO ALLEVIATE CONGESTION AND THE BEST MEANS OF DOING SO

4.1 Utilities are continually under pressure from economic regulators, road users, Government, local authorities, and the public to reduce the time works take, and so works are planned on the basis of ensuring the safety of the public and operatives and securing/enhancing their networks whilst taking as little time as possible. Yet street works account for a small proportion of overall congestion, with mostly arises from volume of traffic and road accidents, and so congestion alleviation policies need to focus heavily on these areas to be truly effective.

4.2 However, we believe that some Government and local authority intervention is necessary to tackle the unfortunate disruption that utility and highway works can sometimes cause. The Traffic Management Act 2004 imposed a statutory duty on local authorities to manage their networks (The Network Management Duty), however currently there is inconsistent application by local authorities of the powers they have to help them fulfil this duty. More effective application would negate the need for further intervention by the Government.

4.3 In the light of cuts in local authority budgets, coupled with devolvement of additional responsibilities and powers as a result of localism, there is a danger of greater inconsistencies in interpreting and applying regulation. This would place considerable burdens on utility companies, many of whom have a national footprint or work across many local authorities, and who would therefore be faced with a range of approaches across their operating area, increasing costs and creating a potential for inadvertent non-compliance. Equally, it is important that the emphasis remains on improving the quality and management of works rather than on revenue-generation. It should not be forgotten that utilities already make a very significant contribution—in excess of £1.3 billion per year—to local authorities through "business (cumulo) rates" charged on their network assets, which are the assets that utilities carry out roadworks to maintain. At present, we understand that this contribution is not specifically allocated for highway maintenance.

4.4 Therefore, the most effective way of reducing disruption from works in the street is through Government and local authorities working in partnership with utilities to better coordinate and manage works to consistent standards. NJUG has been working constructively with local authority and DfT colleagues through HAUC(UK) and with individual authorities across the UK.

4.5 Government/local authorities should also encourage and promote self-regulatory measures instead of further regulation, particularly given Government spending cuts and the deregulation agenda. NJUG has driven a number of voluntary initiatives delivering real benefits through a step-change in the quality and impact of street works, including improved safety, quality, sustainability, communication and reduced disruption, as well as extensive sharing of best practice.

4.6 However, whilst we are seeing many examples of good practice becoming commonplace, we need to continue to further improve the safety and quality of works and find new ways of reducing disruption. A *summary of these voluntary initiatives is below:*

4.7 *NJUG's Vision for Street Works*<sup>49</sup>— Launched in early 2007 it reflects NJUG's commitment to supporting the implementation of the Traffic Management Act 2004 as well as existing street works legislation and codes of practice. It has gained high-level commitment from the vast majority of utility companies to deliver improvements in safety, sustainability, quality, co-ordination, communication and co-operation whilst reducing disruption and damage to underground assets, and has acted as a real catalyst for change.

4.8 *The Annual NJUG Awards*—Launched in 2008 to recognise the voluntary efforts being made by utilities and contractors to combat disruption and improve efficiency of works. There are six categories, one for each *Vision for Street Works* statement. Most importantly, the Awards provide examples of best practice, which are converted into case studies and shared across industry.

4.9 *Mayor's London Code of Conduct*—Launched in 2009, the Code is a voluntary agreement between the Mayor of London and the capital's largest utilities in order to reduce the unfortunate disruption sometimes caused by essential utility street works. In its first year it delivered:

- Significant increases in the use of plating, out of hours working and first-time reinstatements.
- Better co-ordination and communication including improved signage on sites.
- Increased joint safety visits of local authorities, utilities, the Health and Safety Executive, and police who audit any works within the highway (from skips and scaffolding to highway and utility works), with any serious digressions tackled through a Joint Review process.

<sup>49</sup> <http://www.njug.org.uk/category/3/pageid/8/>

- 996 days saved occupation of the street.

4.10 *National Code of Conduct*<sup>50</sup>—The content of the London Code has been modified by NJUG so that it can be applied to the whole of the UK, and is intended to mirror the success the Mayor and NJUG members have achieved in the capital. The Code was jointly launched with the London Mayor in Summer 2010, and is being rolled out across industry. Discussions are well advanced in developing a HAUC(UK) Code in conjunction with authority colleagues.

4.11 *Regional forums/conferences*—NJUG holds seminars to share good practice around the country and attends national/regional conferences to spread good practice.

4.12 *Improving co-ordination*—NJUG has also initiated many other voluntary initiatives and worked closely with highway colleagues—including:

- Sharing plans of major works up to two years in advance, allowing better co-ordination.
- Giving longer periods of notice than legally required for shorter-duration works.
- Participating in the successful Workathons introduced by TfL—which take advantage of a road closure to bring in numerous different organisations to do small short-term works.

4.13 *HAUC(UK) Strategy and Business Plan*<sup>51</sup>—With local authority colleagues, NJUG has developed a strategy and business plan to support the delivery of the DfT Business Plan and Devolved Administration priorities, as well a range of voluntary initiatives to improve the quality of road and street works. This is currently being updated to reflect new government priorities.

## 5.0 THE EFFECTIVENESS OF LEGISLATIVE PROVISIONS FOR ROAD MANAGEMENT UNDER THE NEW ROADS AND STREET WORKS ACT 1991 (NRSWA 1991) AND THE TRAFFIC MANAGEMENT ACT (TMA) 2004

5.1 The TMA built on and improved the provisions of NRSWA 1991. Under the TMA there is a wide range of legislation/regulation to enable local authorities to deliver their Network Management Duty. The success of local authorities in carrying out their network management duties and effectively utilising these legislative provisions has been very varied. However NJUG does believe the current legislative provisions have delivered many improvements in the management of street works, a summary of which is below:

### *Improved Noticing (introduced April 2008)*

5.2 The improved Noticing provisions require greater periods of notice to be given when utilities wish to undertake works. This allows local authorities more time to co-ordinate street works.

5.3 Correct and timely Noticing helps local authorities co-ordinate and manage street works. Utilities have focused heavily on improving the timeliness/quality of Noticing, with numerous authorities reporting significant improvements since the Noticing requirements were enhanced in April 2008. Sustained awareness campaigns/training have emphasised the importance of correct Noticing, with many utilities reporting 97+% compliance. Equally, streamlining processes has reduced inadvertent non-compliance. Utilities continue to monitor their compliance levels and introduce proportionate and cost-effective measures to further drive towards 100% compliance.

### *S74 Overstay Charging (originally introduced in 2002 under NRSWA 1991 and then increased in April 2008 under the provisions of the TMA 2004—with further increases being considered)*

5.4 Utilities are required to agree with the local authority the number of days that works will take. When introduced in 2002 S74 delivered a step-change in the reduction of duration of works. Further increases in the charge levels were introduced in April 2008, but with considerable shortening of durations already achieved further significant reductions won't be easily deliverable.

### *Fixed Penalty Notices (FPNs) (introduced May 2009)*

5.5 In May 2009, the Government introduced the option for local authorities to serve a FPN including a fine of £120 (or £80 if paid within 29 days) for a range of Noticing infringements, such as late or incorrect Noticing. Local authorities retain the right to take a utility to court for persistent non-compliance, but the FPN provides a quick and cheaper alternative to penalise utilities for not telling authorities about their works in a timely and accurate manner.

### *Permits (introduced January 2010)*

5.6 Currently local authorities, either singly or together, may apply to the Secretary of State to run a permit scheme, which requires utilities, and local authorities' own highways teams to apply for permits to undertake works. In granting permits, local authorities can apply conditions, including when works can take place. As

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<sup>50</sup> A copy of the National Code of Conduct can be found here:  
[http://www.njug.org.uk/uploads/1006\\_NJUG\\_Code\\_of\\_Conduct\\_-\\_final\\_.pdf](http://www.njug.org.uk/uploads/1006_NJUG_Code_of_Conduct_-_final_.pdf)

<sup>51</sup> The latest version of the HAUC(UK) Strategy and Business Plan can be found here:  
<http://www.hauc-uk.org.uk/category/3/pageid/95/>



with Noticing, permit schemes require greater notice to be given of works, including three months for works of 10 days or more. This allows local authorities to better co-ordinate both their own and utility works and thereby reduce disruption.

5.7 So far, only three schemes have been approved. The common permit scheme in London requiring permits for all works in all streets of those authorities who have introduced it, regardless of whether the street is busy or not. In contrast, Kent's permit scheme takes a more proportionate approach, by focusing on the major works on the busiest streets to deliver maximum benefit for minimum administrative burden and cost. This is based on the general principle that about 80% of the disruption is on approximately 20% of the streets. The final scheme is in Northamptonshire, which has just gone live in January 2011 and like the Kent scheme, it focuses on strategic roads only which equates to around 19% of their road network.

5.8 NJUG is also working constructively with other local authorities to develop robust workable permit schemes that efficiently tackle congestion without placing unnecessary burdens on utilities and their customers, whilst also ensuring that essential street works programmes take place.

5.9 However, NJUG has concerns about some local authorities' operation of permit schemes. The London Permit Scheme, introduced in January 2010, is not targeted to prioritise works on the most traffic-sensitive parts of the network. It is therefore unlikely to reduce congestion as intended, whilst imposing significant additional costs on utilities and their customers, particularly given inconsistent application of the scheme. Interestingly, on the day the scheme came into force London Mayor Boris Johnson commented that permits would not be effective in reducing congestion in London (despite having pushed for its early implementation) and that he wanted lane rental. In contrast, because the Kent Permit Scheme focuses on only the most congested roads, it enables utilities to prioritise those works. So far, the County Council has seen a 50% reduction in complaints about street and road works.

5.10 It is also worth noting that differing schemes add unnecessary additional costs to utilities, their customers and indeed local authorities, and increase inadvertent non-compliance because of the many differences between schemes.

5.11 During the passage of the TMA through Parliament, the previous Government committed to evaluate the effectiveness of permit schemes one year after their implementation. This was a commitment that we welcomed, to enable the relative benefits and costs of differing schemes to be assessed and lessons to be learnt and shared. However, since the election, the DfT has stated that due to funding restrictions this evaluation will not now be carried out by the Department. Instead local authorities will report on the effectiveness of their own schemes. NJUG believes that an independent assessment of both the London and Kent schemes will not only demonstrate their respective effectiveness and identify the full costs incurred, but will also provide a valuable comparison of the two different schemes, enabling analysis and sharing of the most effective practices, for other authorities to consider when developing their own schemes.

5.12 NJUG therefore urges the Transport Select Committee to emphasise the importance of the need for an independent assessment of the initial period of operation of permit schemes, and in the absence of the Department for Transport carrying out such an assessment, we urge the Committee to consider launching an inquiry of its own.

#### GOVERNMENT'S CURRENT POLICIES

5.13 The DfT's recent Business Plan includes proposals to devolve permit approval powers to local authorities (delivery deadline April 2012); increase S74 Overstay Charges (delivery deadline October 2011); and to consult on and deliver lane rental regulations (delivery deadline December 2011). These measures will have a significant financial impact on utilities and their customers.

5.14 NJUG is concerned that implementation of these policies will require utilities to redirect their efforts to meeting specific regulatory requirements, rather than continuing to deliver further improvements through successful self-regulatory measures.

5.15 NJUG contributes to and supports robust workable regulation which does not impose unnecessary additional costs on utilities and their customers. For several years, we have been working closely with DfT and local authority colleagues to develop essential regulations and codes of practice to improve the quality and safety of works. As part of the Government's desire to not impose further burdens on business, these workstreams have been delayed to allow further consideration of how to reduce their financial impact. However, in contrast, the DfT continue to press ahead with lane rental and increases in S74 which will have significant financial implications for utilities and their customers.

5.16 The administrative cost of managing and complying with these new regulations has increased substantially for both utilities and local authorities at a time when both are under pressure to make efficiency cuts. Furthermore, NJUG is concerned that, in light of how high the potential financial implications of these new regulations are for both parties, a greater focus will be placed on charging or avoiding charges at the expense of improving the quality of the works or developing new innovative ideas to limit the associated unfortunate disruption.

5.17 Therefore NJUG believes that the existing regulations, if implemented consistently and effectively by all local authorities, would further reduce disruption caused by utility and highway works and therefore negate the need for more regulation. However, if the DfT wish to pursue additional regulations then NJUG would welcome an early opportunity to work with them to ensure that they are fair and workable, do not place unnecessary burdens on utilities and their customers and apply to all works equally.

#### *Lane rental (S74a of the NRSWA 1991)*

5.18 Lane rental would be an additional charge imposed on utilities (ultimately paid for by their customers) for every day they occupy the highway regardless of how efficiently they undertake works. Given the myriad of regulation already available and the numerous voluntary measures introduced by NJUG, we do not believe that lane rental will necessarily deliver significant additional benefits over and above the existing legislation, whilst increasing utility costs considerably.

5.19 However, if lane rental was to be implemented it could only be effective if applied to all works promoters—highway authorities as well as utilities. Additionally, NJUG believes it should be targeted only at pinch points on strategic roads, where there are very high recorded traffic densities, and only in cities where there are a significant number of pinch points. Any scheme should also be incentive-based, providing an opportunity for works promoters to work safely outside of critical/peak times and use plating during the busiest times to return the road to use, where practical and safe to do so, or working in collaboration with others, and in doing so avoid the charge. This is a view that has been endorsed by DfT. However, the additional financial and social cost of personnel working out of hours, and the additional time factor of putting down and removing plating each day needs to be considered when assessing the costs and benefits of lane rental.

5.20 The DfT has come under considerable pressure from key stakeholders to expedite lane rental proposals as soon as possible. However, to have a chance of making a difference on overall levels of disruption, any lane rental proposals must be equally applied to local authority works, who account for nearly half of all works, but which currently face no financial incentives or penalties to carry out works in an efficient and timely manner. According to TfL's own figures<sup>52</sup> 38% of London's traffic delays are caused by road works, with half from utility works and half from local authority works. Prematurely implementing the proposals targeting only utilities would raise false expectations of having a major reduction in congestion, while imposing significant costs to utility customers. Therefore robust analysis of costs/benefits is vital before any implementation.

5.21 NJUG is also concerned that there may be a perverse incentive for authorities to manage works in such a way that delivers maximum revenue, rather than always reducing disruption which must be addressed.

5.22 Given the Government's interest in enabling the implementation of lane rental, NJUG would welcome the opportunity to work with DfT/TfL to develop an initial scheme targeted at pinch points on selected strategic routes in London. This should include rigorous assessment of the costs and benefits, with a full review prior to consideration of implementation elsewhere. Such benefits should be over and above those already claimed in the Cost Benefit Analysis for the introduction of changes to the Co-ordination Code of Practice, Improving Noticing regulations, FPNs, Section 74 Overstay Charges and Permit Schemes.

#### *Increased S74 Overstay Charges*

5.23 Since its introduction in 2001, Section 74 Overstay Charging has delivered a step-change in reducing durations.

5.24 However, Government is now considering a substantial increase in S74 charges. With considerable shortening of durations already achieved, NJUG has serious doubts whether a similar step-change to achieve even shorter durations is possible, given the need to maintain safety, quality and environmental standards.

5.25 NJUG is also concerned that any such increase may lead to (i) increased utility costs disproportionate to any benefit and (ii) encourage some local authorities to use S74 as an income stream because of the large numbers of works involved, resulting in an increase in spurious s74 charges and FPNs not in the spirit of the HAUC(UK) Advice Note on FPNs.<sup>53</sup>

5.26 Utilities are alive to the cost/reputational damage of overrunning works, and are already incentivised to be efficient and minimise durations of works through their economic regulatory settlements (gas, water and electricity) or commercial pressures (telecommunications).

5.27 Utilities acknowledge the perception that nothing is happening if there is no-one on site, but there are often good reasons for this—such as concrete drying, waiting for a unique part to be manufactured (given that gas and water mains can date back to Victorian times) or workers having been diverted to an emergency. However utilities are taking positive steps to minimise these and also improve communication with the public. For instance a number of companies have introduced new street signage explaining why there appears to be no activity on site and the expected date works will be completed.

5.28 However, as part of the NJUG National Code of Conduct (Section 4.0) we continue to encourage utilities to minimise durations of works at all times.

<sup>52</sup> "Progress Report No 1 (Feb 2010)—Mayor's Code of Conduct for Road Works", TfL, February 2010, p6

<sup>53</sup> The FPN advice note can be viewed here <http://www.hauc-uk.org.uk/publication/15>

5.29 NJUG does not therefore believe there should be any further increase in S74 charges, as in the current economic climate S74 at its existing level remains a potent drive for utilities to minimise the duration of their works.

#### *Permits*

5.30 NJUG is concerned that the Government's drive for localism and consequent decision to devolve the approval of permit schemes by the Secretary of State to local authorities may lead to schemes being less focused on major disruption and more towards generating fees, all of which increases the administrative and financial burden on utilities and their customers. Additionally, with local authorities approving their own schemes, there is a risk that a) without a sense check by the Secretary of State, local authorities will unwittingly misinterpret the regulations and introduce overly burdensome requirements and b) numerous different schemes will lead to inadvertent non-compliance, and increased costs/administrative burden for utilities.

## 6.0 RECOMMENDATIONS

In summary, we would like to make the following recommendations for the Committee's consideration:

6.1 Following the decision of the DfT not to undertake the one-year review of the effectiveness of permit schemes, NJUG urges the Committee to emphasise the importance of there being an independent assessment of the initial period of operation of permit schemes, and in the absence of a DfT assessment, consider launching an inquiry of its own.

6.2 We urge the Committee to call on Government to ensure that, in devolving the approval of permit schemes to local authorities, there are suitable safeguards in place to ensure that:

- Authorities are appropriately incentivised to deliver a balance between reducing disruption and ensuring the efficient and cost-effective supply of essential utility services.
- Authorities don't use existing/new regulation as a way of increasing income.
- It is recognised that inconsistency of approach will add costs and bureaucracy, and also potential non-compliance by utilities and highway authorities.
- Mechanisms are in place to share best practice so that individual local authorities do not all "re-invent the wheel".

6.3 NJUG also asks the Committee to consider the proposed increases in S74 overstay charges and implementation of lane rental, in light of the Government's commitment to not impose further additional burdens on business, and given the myriad of legislation already in place to regulate utility street works. The combination of significant self-regulatory measures initiated by NJUG along with the TMA provisions has already resulted in considerable improvements in the quality of works and reduced disruption. However, further improvements and consistency in implementing the TMA could negate the need for more regulations.

6.4 We therefore ask the Committee to urge Government to demonstrate that any new regulations deliver additional benefits over and above existing regulation; that costs to utilities/their customers are minimised; and that benefits considerably outweigh the costs.

6.5 Finally, we urge the Committee to acknowledge that utility works only contribute to a small percentage of overall congestion and that without applying equal incentives to local authority works, any new regulations will have little impact on reducing congestion.

*February 2011*

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### **Supplementary written evidence from the National Joint Utilities Group Ltd (NJUG) (ETM 29a)**

I am writing further to the National Joint Utilities Group Ltd's (NJUG's) oral evidence to the Transport Select Committee on 10 May 2011, at which my colleague Dave Turnbull gave evidence, as I was regrettably out of the country, and therefore unable to appear before you.

Inevitably, the session went very quickly, and there were a few key points we would like to emphasise to the Committee. These are within the attached supplementary evidence.

However, in addition, I would like to take this opportunity to correct an inadvertent but genuine mistake in the provision of the statistic in respect of the financial cost of a blanket application across England, based on the current proposals of a maximum of £2,500 per day. Dave Turnbull indicated in his evidence that the cost would be £2.5 billion per year, however the correct figures as estimated by NJUG, are between £1.5 billion and £2.0 billion. We apologise for this error and wish to set the record straight.

Finally, we understand that the Committee is visiting a National Grid street works site on 9 June, and we hope that this will provide a useful insight into the practicalities and challenges of undertaking works in the street. We also hope our supplementary evidence is helpful too. However, if NJUG can assist the Committee by providing any further information or clarity please do not hesitate to contact me.

## 1.0 INTRODUCTION

NJUG would like to thank the Transport Committee for the opportunity to provide oral evidence on 10 May as part of the Committee's inquiry into Effective Road and Traffic Management. We also hope the Committee will find this supplementary evidence useful.

It is worth re-iterating that utility services are part of the essential fabric of the UK economy—and utilities are investing billions each year in maintaining and improving their networks. Network providers undertake street works for four primary reasons—safety, security of supply, to connect or upgrade customers' supplies, or to divert apparatus for major transport or urban regeneration projects.

There is a myriad of existing legislation available to local authorities to manage street works. Additionally NJUG's Vision for Street Works / National Code of Conduct are delivering real results. NJUG therefore believes that local authorities already have a range of tools with which *to* manage their own and utility works. However, use of all these measures is patchy, and so their impact is varied. If the existing legislation is applied more consistently and effectively then it would deliver the reduced disruption everyone wants.

Also, nearly all existing and proposed legislation applies only to utility works, yet utilities only undertake 50% of the works on the highway network, with local authorities making up the other 50%. If Government is serious about tackling disruption from works on the street, similar incentives are needed for local authority works.

NJUG is therefore concerned that Government is considering introducing yet more regulation without first analysing the impact, costs and benefits of all the existing legislation. We strongly believe that the best way of tackling congestion is for utilities to work together with authority colleagues to plan for and co-ordinate works under the existing legislative regime. We continue to urge Government to focus on supporting the self-regulatory initiatives already delivering higher standards and reduced disruption, which will be more effective than imposing yet more regulation and resultant costs on utilities, which ultimately will be passed on to end customers.

## 2.0 CONGESTION

As recognised by a number of witnesses, the vast majority of congestion is caused by volume of traffic, with accidents and incidents the next biggest contributor. Only around 10% of congestion comes from works in the street, split equally between utility street works and road maintenance.

NJUG regrets the disruption that sometimes arises from essential street works and is working hard to reduce the duration and size of works, improve communications, and work with local authorities to flex works on major streets to avoid the busiest times.

The *NJUG Vision for Street Works*, introduced in 2007, has driven a sustained improvement programme delivering real benefits in improved safety, quality and communication of works and reduced disruption.

In 2009 NJUG worked closely with the Mayor of London / TfL to develop and implement a London Code of Conduct focusing on reducing disruption, saving 996 days disruption in its first year. The National Joint Utilities Group Ltd April 2011.

Building on the London Code, in June 2010, NJUG launched its own National Code of Conduct (copy attached), and, working with JAG(UK), we are pleased it will now become a HAUC(UK) Code of Conduct for both utilities and local authorities.

The volume of works is not going to go down for the foreseeable future, as utilities continue to undertake sustained replacement programmes and invest in upgrading their networks to meet future UK needs. Therefore utilities and authorities need to continue to work together to co-ordinate works. There are many examples of good co-ordination across the UK—some examples include:

- *Staffordshire Kinver Project*—Staffordshire County Council worked together with utilities and contractors to co-ordinate works—resulting in a 20+ week job being completed in seven weeks.
- *Borough High Street in London*—TfL, London Borough of Southwark, utilities and contractors worked together—saving 384 days disruption.

Copies of these case studies and others can be found at [www.njug.org.uk](http://www.njug.org.uk).

## 3.0 LANE RENTAL

NJUG does not believe that lane rental will provide additional benefits in terms of reduced disruption, over and above the existing legislation that exists for local authorities to manage street works, which we believe should be used more consistently and effectively. However, if the Government is intent on implementing lane rental, NJUG believes it should be:

- *Targeted only at pinch points on strategic roads*—where there are very high traffic densities and in cities where there are significant numbers of pinch points eg London.

- *Operated on an incentive basis*—with utilities and highway authorities incentivised to work outside rush hours and to use techniques such as plating to return the road to service where safe and appropriate to do so, in return for avoiding a lane rental charge.
- *With a 3-tiered approach* (advocated by London First)—whereby lane rental applies to the busiest streets; then permit fees apply to other busy A roads; and the smaller B roads or backstreets do not attract any fees at all—thus allowing prioritisation on those roads where congestion is greatest.

Whilst utilities' costs would be increased, either through choosing to pay the lane rental charge or avoiding them by working out of hours or using plating, it may not always be possible to avoid charges, as working outside normal hours may be prevented or restricted by the Local Authority Environmental Health Officer due to noise constraints. This would mean that disruption would not be reduced yet utilities would have no choice but to work during the day, thereby incurring lane rental charges, with no consequent benefit.

#### 4.0 S74 OVERSTAY CHARGE INCREASES

During our oral evidence to the Committee, there was little mention of the Government's proposed very significant increases in Section 74 Overstay Charges, over which NJUG has real concerns.

Since its introduction in 2001, S74 Overstay Charges have delivered a step-change in reducing durations. NJUG believes that Government's proposals for further substantial increases: The National Joint Utilities Group Ltd April 2011:

- Will not deliver the same improvement, as much of the possible reduction has already been achieved.
- Will increase utility costs disproportionately to any benefit, particularly for smaller scale works such as utility connections, which customers will have to pay on top of their connection charge.
- Are not necessary, given that Transport for London recognise that on their roads (the busiest London streets) only around 2% of utility works now overrun as utilities are already incentivised to be efficient and minimise the duration of works, through either their regulatory settlements (gas, water and electricity) or commercial pressures (communications).
- Could drive the wrong behaviours by:
  - Potentially leading to cutting of corners in order to avoid large costs.
  - Encouraging some local authorities to see S74 as an income stream, due to the large numbers of works and figures involved, resulting in spurious issuing of S74 Overstay Charges not in the spirit of HAUC(UK)'s objectives of working together, better.

Utilities recognise the common perception that nothing is happening if there is no-one on site, but there are sometimes good reasons for this, such as—concrete drying, waiting for a unique part to be manufactured (given that gas and water mains can date back to Victorian times) or resources diverted to an emergency. However the Code of Conduct focuses on reducing disruption from works in the street, and NJUG continues to highlight the importance of minimising occupation of the street.

#### 5.0 PERMITS

NJUG continues to offer assistance to local authorities developing permit schemes to seek to develop workable and robust proposals that focus on reducing disruption whilst not placing unnecessary burdens on utilities and their customers.

We therefore believe that those schemes that focus on major planned works on the busiest streets are the most likely to deliver benefits in terms of reduced disruption, such as Kent and Northamptonshire. This approach enables authorities and utilities to work together to plan and co-ordinate works, whereas those schemes which cover all works on all streets mean that the volume of permit applications impacts on the ability to focus on those works which cause the most disruption. This is borne out by Kent's scheme which has resulted in 50% less complaints from the public about works in the street in its first year.

However, in addition NJUG is concerned that:

- *One-year Review of Permits*—The Coalition Government has confirmed that it does not propose to honour the previous Government's commitment to undertake a review of permits one year after their implementation—thereby missing the opportunity to assess any merits against costs of different types of schemes, which would be invaluable to other local authorities considering implementation of a permits scheme.
- *Devolution of approval of permit schemes*—Government devolving approval powers of permits to local authorities is likely to lead to numerous differing schemes. This will create inconsistencies in interpretation, coupled with application of the maximum allowed permit fees, regardless of the actual costs incurred by authorities, resulting in additional burdens and potential inadvertent non-compliance by utilities.

Additionally, Government currently reviews all existing approved schemes prior to approving them. In all cases this lead to amendments before their final approval. Without this independent scrutiny there is a real risk

of inadvertent misinterpretation of the permit regulations and potentially high levels of costs being unnecessarily imposed on utilities and their customers, with little or no reduction in disruption.

## 6.0 LONG TERM DAMAGE AND POTHOLES

NJUG and individual companies continue to strive to improve the quality of reinstatements and ensure compliance with the recently revised Specification for Reinstatement of the Opening of the Highway Code of Practice, which authorities and utilities worked with Government to develop.

If a utility's street works are not reinstated to the right standard and this is brought to their attention by the authority, they will return to put it right at their own expense.

However, the UK has definitely seen an increase in potholes as a result of the bad weather over the last two winters. Potholes occur for many reasons—extremes of weather (both hot and cold), the original quality and construction of the road, the frequency and standard of road maintenance, the volume and size / weight of traffic, and reinstatement by either authorities or utilities.

NJUG has therefore agreed with JAG(UK) to form a HAUC(UK) Coring Group to look at the causes of potholes, the quality and methods of taking cores (to assess the reinstatement), the quality of reinstatements and what leads to failures, and raising awareness of the need for both accurate corings and quality reinstatements for every job, whether by a utility or an authority.

Finally, it is worth noting that utilities already pay £1.3 billion for the right to locate their apparatus in the street, and it may be that such monies could be ring-fenced to supplement local authorities' highway budgets.

## 7.0 SPECIFIC POINTS RAISED BY THE COMMITTEE

*Noticing*—During the oral evidence session the Committee spent some time examining the detail of the Noticing provisions, which were enhanced in 2008. NJUG wants to make it clear that utilities adhere to the Noticing requirements. Indeed, utilities are routinely achieving 98+% compliance in terms of timeliness and accuracy of Noticing.

All works (except emergency works) require Noticing in advance of them commencing. In respect of emergency works, the Noticing regulations require utilities to notify local authorities within two hours of arriving on site. Utilities adhere to this requirement, sending the Notice within the two hour period, even if the emergency occurs late on a Friday afternoon.

Specifically, the Co-ordination (Noticing) Code of Practice states:

*“Immediate notices must be given as soon as reasonably practicable and, in any event, within two hours of the works starting. Where immediate works are identified and undertaken outside the normal working day the notice should be given within two hours of the start of the next working day, ie by 10:00. Some authorities may be able to respond to notices outside the normal working hours and would expect immediate notices to be given. These hours should be set out in the authority's operational district data (ODD).”*

As most authorities do not operate their EToN systems (electronic transfer of Noticing system) over the weekend, this sometimes means that they are not aware of works until the following Monday, although if the works occur on one of the main thoroughfares the utility can, and indeed should alert the authority by phonecall, albeit this is not a statutory requirement, more a voluntary initiative which supports HAUC(UK)'s objective of working together better.

*Evidence of the Effectiveness of the Existing Legislation*—The Committee asked about evidence on the effectiveness of the existing legislation. NJUG would like to stress:

- NJUG continues to be concerned that Government is considering increasing S74 charges and introducing lane rental, when there has been no measurement of the existing legislation, some of which has only been introduced relatively recently—such as permits.
- Since 2001 there have been numerous new regulations, most of which claim the same benefits over and over again, with none being evaluated for their effectiveness against the additional costs to utilities and their customers.
- Government continues to add layer upon layer of regulations on utilities, increasing utility costs and administrative burden. In NJUG's view, simply applying similar incentives to authority works and encouraging utilities and authorities to work together to plan and co-ordinate works would have a far greater effect on disruption.
- There have only been two reports measuring the impact of street works on congestion—The 1992 Transport Research Laboratory Report on trunk roads, and a more recent TfL report on their network. But there is no definitive report on the costs and causes of congestion, nor the effectiveness and cumulative impact of street works legislation / regulation.

NJUG believes that it is vital that Government establish the:

- *Baseline cost and causes of congestion.*

- *The total costs to utilities*—including direct costs such as permit fees as well as one-off costs (system upgrades, process changes, training) and residual administrative costs arising from the street works regulations, which may ultimately be passed on to end consumers.
- *The total cost to authorities*—including imposing the same permit terms and conditions on their own works as those on utilities, one-off costs and residual administrative costs.
- *Reduction in disruption*—in terms of saved days resulting from each set of regulations.

May 2011

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### Written evidence from Stagecoach Group plc (ETM 30)

#### 1.0 INTRODUCTION

1.1 Stagecoach Group plc welcomes this opportunity to contribute to the inquiry into Effective Road and Traffic Management and to present evidence to the Transport Committee.

1.2 Effective road and traffic management is a fundamental pre-requisite of an attractive bus service; it is therefore an issue which is very important for all bus operators.

1.3 Our views are given below in response to the questions the Committee has posed.

#### 2.0 STAGECOACH GROUP

2.1 Stagecoach Group has extensive operations in the UK, United States and Canada. The Group employs around 35,000 people and operates bus, coach, rail, and tram services.

2.2 In the UK, our fleet of around 8,400 buses connects communities in more than 100 towns and cities across the country. We have been consistently highly placed in national UK Bus Awards in each of the last four years.

2.3 Two million passengers travel on Stagecoach bus services outside the capital every day, using a network stretching from south-west England to the Highlands of Scotland. We serve major cities, including Manchester, Liverpool, Newcastle, Sheffield, Hull, Oxford, Cambridge and Exeter, as well as key shire towns and rural areas. We have also recently re-entered the London bus market with the acquisition of the East London and Selkent bus companies, which run 15% of the capital's bus services.

2.4 We operate a range of local scheduled services, express coach networks and school bus operations. Most of our services are operated on a commercial basis in a deregulated environment. We also operate contracts on behalf of local authorities and other organisations.

2.5 Since 2006 Stagecoach has invested £398 million in new state-of-the-art buses. This is part of a long-term commitment to improve our environmental performance and ensure all our vehicles are fully accessible to the elderly, disabled and families with young children. As part of our strong commitment to the safety and security of our passengers and our people, all our new vehicles are fitted with digital CCTV systems.

2.6 We also operate express coach services linking major towns within our regional operating company areas including the Oxford Tube connecting London and Oxford at high frequencies 24 hours per day, 365 days per annum. The Group runs the market-leading budget inter-city coach service, megabus.com, which carries over two million passengers a year on a network covering more than 50 locations and the bus/rail integration product, megabusplus.com. Scottish Citylink, our joint venture with ComfortDelGro, is the leading provider of inter-city express coach travel in Scotland.

2.7 Putting customers first is our priority. We continue to focus closely on the recruitment and training of our people, and we have one of the best records of any major operator for vocational training among our frontline drivers and engineers. Our UK Bus division is also a major employer, providing jobs for around 23,000 people at over 110 locations in our 19 regional companies.

2.8 Stagecoach Group is a major rail operator and has an involvement in running almost a quarter of the UK passenger rail network. The Group operates the East Midlands and South Western rail franchises, the latter incorporating the South West Trains and Island Line networks. South West Trains, the UK's biggest commuter franchise, runs nearly 1,700 trains a day in south-west England out of London Waterloo railway station. In addition, Stagecoach Group has a 49% shareholding in Virgin Rail Group, which operates the West Coast inter-city rail franchise.

2.9 We also operate Supertram, a 28km light rail network incorporating three routes in the city of Sheffield, and have a 10-year contract to operate and maintain the Manchester Metrolink tram network.

2.10 We are committed to investing over £200 million in our rail franchises to improve the quality and range of our services. This has included station and car park enhancements, making ticket purchase simpler using smart media and ticket vending machines, depot extensions and rolling stock refurbishment.

2.11 Stagecoach is the largest operator of hybrid buses outside London and also has fleets in Kilmarnock and Cambridge operating on 100% biofuel produced from re-cycled cooking oil. In 2010 the Group was awarded the Carbon Trust Standard for its achievements.

2.12 Stagecoach Group has a five year sustainability strategy designed to reduce carbon emissions across all areas of the business. The £11 million programme aims to reduce buildings' CO<sub>2</sub> emissions by 8% and road vehicle emissions by 3% per annum by 2014. To achieve the premises targets the Group is investing in improved management of its energy and water consumption at all its sites and through the appointment of green champions among UK Bus staff, ensuring that wastage and inefficiencies are minimized. Adopting a similar approach, East Midlands Trains has appointed energy wardens and South West Trains is also retrofitting regenerative braking to its Class 458 and Desiro rolling stock and is currently piloting an in-cab train energy management system designed to help drivers to reduce electricity consumption by up to 10%.

2.13 Of particular relevance to this Inquiry is the programme to reduce bus CO<sub>2</sub> emissions. All 14,000 UK bus drivers are being trained in eco-driving techniques and buses are being fitted with in cab technology to help them deliver the target. While the early year targets are challenging, delivery of subsequent annual targets without the aid of more effective traffic management measures in congested areas may not prove possible.

### 3.0 THE PREVALENCE AND IMPACT OF TRAFFIC CONGESTION AND LIKELY FUTURE TRENDS

3.1 Internationally, it is generally accepted that the volume of traffic is closely related to the state of a nation's economy. In times of economic growth traffic volumes rise and so does congestion, unless measures are taken to mitigate the impact. It is therefore very likely that, without intervention to constrain the growth in traffic once economic growth returns, congestion will increase.

3.2. Traffic delay is far more prevalent than is generally acknowledged. In many places, the delays caused by the rising volume of traffic slowly increase and bus operators continually have to adjust their timetables in order to maintain a reliable service. For example, in Manchester the number of buses operated by Stagecoach in 2005 was the same as in 1996. However, the mileage those buses operated was reduced by 10% as services were slowed down to compensate for increasing congestion and more buses were deployed on each service.

3.3 Congestion and delay have a particular adverse impact on bus services, which we endeavour to operate to advertised timetables. This impact is felt in two ways:

- (a) Bus journeys are delayed, necessitating the lengthening of advertised journey times. This increases the cost of providing the service, which results in higher fares and a slower, less attractive service, which in turn results in fewer intending passengers. It also increases fuel consumption and therefore, harmful emissions.
- (b) Day to day delay is both variable and unpredictable. This can result in buses having to wait for time en route when delays are less severe. Passengers find this practise irksome, particularly when they wish to complete their journeys in the shortest time possible.

3.4 Apart from the practical difficulties of trying to maintain advertised timetables in congested situations, bus operators can be fined by the Traffic Commissioner for failing to operate a punctual and reliable service. In extremis, the Commissioner can ban an operator from providing services altogether.

### 4.0 THE EXTENT TO WHICH THE GOVERNMENT AND LOCAL AUTHORITIES SHOULD INTERVENE TO ALLEVIATE CONGESTION AND THE BEST MEANS OF DOING SO

4.1 The economic consequences of congestion are currently around £11 billion per annum in urban areas. Additionally congestion leads to poor air quality which results in ill health, and has similar costs to society,<sup>54</sup> It is our view that these are compelling reasons for government and local government intervention, particularly in the present economic circumstances.

4.2 Road vehicle emissions are directly related to fuel consumption and all motor vehicles consume proportionately more fuel at slower average speeds. This is particularly marked in stop start operating conditions, which are an inevitable consequence of queuing traffic.

4.3 While Government, through the Highways Agency, takes responsibility for addressing these problems on the motorway and trunk road networks, it is a matter for local Highway Authorities to deal with in urban areas.

4.4 In urban situations there are only two basic approaches to addressing these issues.

4.5 The first involves reducing the volume of traffic using the congested roads. This can be achieved by a number of measures; eg by restricting access, congestion charging, introducing park and ride schemes to encourage transfer to buses or trains, and by limiting the supply and increasing the price of parking spaces at the ultimate destination.

4.6 The second involves improving the flow of traffic on the congested roads. This can be achieved by preventing parking, restricting loading, managing road works effectively and by reducing or re-phasing the number of traffic signals which interrupt traffic flow.

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<sup>54</sup> Cabinet Office Urban Strategy Unit—An Analysis of Urban Transport November 2009.



4.7 The appropriate mix of measures which should be adopted will vary from location to location and their introduction needs to be accompanied by improved public transport alternatives. These can be delivered in partnership as the following example shows.

4.8 Stagecoach has worked with the Authorities in Cambridge for the past 10 years to provide bus priority and provide attractive local bus services. There are now five Park and Ride sites ringing the city offering 5,000 spaces to motorists. These now generate over 3.8 million bus trips per annum. The city's bus service has also been transformed, with the result that twice as many passengers use the local buses now than did so in 2000. Such outcomes require resolve, investment and sustained commitment from all parties.

#### 5.0 THE EXTENT TO WHICH ROAD USER CULTURE AND BEHAVIOUR UNDERMINES EFFECTIVE TRAFFIC MANAGEMENT, INCLUDING THE RELEVANCE TO TODAY'S ROAD USERS OF THE HIGHWAY CODE

5.1 The most common selfish or unthinking behaviour by road users is the abuse of parking restrictions and indiscriminate parking where no restrictions exist. The prevalence of such behaviour is usually inversely related to the amount of enforcement exercised.

5.2 Knowledge of the Highway Code is a pre-requisite to being a professional driver. It should be required reading for all road users, but most tend to only refer to it when preparing for driving tests. As a consequence, their understanding of more recent signing and regulations is often limited. DVLA should automatically supply a copy of the Highway Code on each occasion a driver renews an expired driving licence photo card, and the licence holder should pay for the publication at cost.

#### 6.0 INTELLIGENT TRAFFIC MANAGEMENT SCHEMES, SUCH AS THE SCHEME WHICH HAS OPERATED ON THE M42 AND THEIR IMPACT ON CONGESTION AND JOURNEY TIMES

6.1 Stagecoach understands that the M42 scheme has been successful in increasing the capacity of the road and reducing delays to users, although there has been some criticism of its day to day management.<sup>55</sup> It therefore welcomes such interventions where they are judged to be cost effective investments.

#### 7.0 THE EFFECTIVENESS OF LEGISLATIVE PROVISIONS FOR ROAD MANAGEMENT UNDER THE NEW ROADS AND STREET WORKS ACT 1991 AND THE TRAFFIC MANAGEMENT ACT 2004

7.1 Bus operators are invariably the most frequent users of urban road space, with a typical 10 minute bus service traversing the same section of highway in both directions over 900 times each week. Stagecoach therefore has a particular interest in the effective application of this legislation.

7.2 So far as we are aware, the provisions to create and manage toll roads in the 1991 Act have only been used once so far; the construction and operation of the M6 Expressway.

7.3 The street works management provisions of the 1991 Act require undertakings to give notice of road works and Authorities some control over their activities. These powers have been strengthened by the Traffic Management Act 2004 which contains a number of important and wide ranging provisions which are designed to deliver more effective road and traffic management.

7.4 We have been unable to establish the number of instances of road works in Great Britain in a typical year, although in Scotland, where there is a Road Works Commissioner, there are approximately 80,000 and in London over half a million.<sup>56</sup> We also understand that there are over 200 utilities with authority to place their services beneath the highway and therefore potentially needing access to them. It is therefore evident that the effective management and control of road works can play a major part in reducing traffic delay.

7.5 The 2004 Act places network management duties on local Highway Authorities requiring them to manage their highways effectively, with specific reference to congestion reduction. They are also required to appoint a Traffic Manager who is charged with identifying the causes of congestion and considering any action which may be taken to address these issues. Further provision is made requiring Authorities to monitor and assess how well they are carrying out their network management duties. The Government may also require information to be provided on Authorities' network management performance and for intervention and the appointment of an external Traffic Director, in the event that an Authority is judged to be failing in its duties. There has to our knowledge, been no objective assessment of Traffic Managers' overall performance beyond the reporting of average morning peak vehicle speeds on a number of key corridors. We also understand that the Department of Communities and Local Government is now planning to remove this limited reporting requirement.

7.6 The Act also enables Highway Authorities, upon receipt of government approval, to issue permits allowing them to charge utilities for access to the highway for a specified period with an accompanying financial penalty regime in place for non compliance with the terms of their permit. Regulations to enable such applications were not laid before Parliament until 2007 and Guidance was first issued to Authorities in 2008 and again in November 2010. The first two schemes, (London and Kent), commenced in January 2010 and Kent County Council reports it has been issuing over 30,000 permits each quarter. It also believes that the scheme is resulting in an overall significantly shorter duration of road works. It would appear that a growing

<sup>55</sup> Local Transport Today LTT561.

<sup>56</sup> Kelvin Ranger: Transport Adviser to the Mayor of London—*The Times*, 21 January 2011.

number of Authorities are now interested in taking on these powers, which should result in fewer, less disruptive and better coordinated road works.

7.7 In our view, the civil enforcement provisions of the Act are one of its greatest benefits. By 2006, 50% of Authorities had taken advantage of this enactment. Currently, over 85% of Authorities have been granted civil enforcement powers for parking offences. Where this is the case we note that there has been an increase in enforcement activity and consequent improved compliance with parking restrictions in particular. The Act also provides for the enforcement of specified moving traffic offences, but government has yet to lay regulations before Parliament bringing these provisions into effect outside London.

7.8 While the Traffic Management Act 2004 is potentially a powerful piece of legislation in terms of the range of measures which may be implemented to reduce traffic congestion, progress with implementation of its provisions has been frustratingly slow, as identified above.

7.9 We would also suggest that while some Traffic Managers have readily embraced their new duties, overall there is little accountability for their performance in the manner the Act originally intended and therefore no certainty that they are all delivering the best possible outcomes.

#### 8.0 THE IMPACT OF BUS LANES AND OTHER ASPECTS OF ROAD LAYOUT

8.1 Bus lanes can be an effective means of reducing delay to buses and their passengers. They are most effective where they produce the maximum time saving, which aren't necessarily the locations where it is easiest to install them. They are one of a package of measures which can be adopted to achieve more reliable and faster bus journey times. Faster bus services are more attractive to passengers, less expensive to operate, enabling lower fares and lower emissions. These factors together encourage more people to use the bus.

8.2 Bus lanes are also a powerful reminder to all road users that the local authority regards its bus network to be an important part of its local transport solution. Provided the capacity at the junction which causes delay to all traffic, is not reduced, then well designed bus priorities should not delay other traffic overall, but merely enable buses to queue jump. For these reasons we deplore the decision of Ministers to remove the M4 bus lane at Heathrow Airport, since it implies that the government sees no value in bus priority.

8.3 There is a tendency to introduce new roundabouts or additional traffic signals at junctions where significant new development takes place and needs access to the main highway. This is often funded by developer contributions. While some form of traffic control is often necessary, the cumulative impact of such measures is to slow through traffic down and increase journey times. Unless compensatory bus priority measures are introduced to enable buses to recover this lost time there is gradual erosion in bus operating efficiency with the same consequences as identified in 3.3, above, particularly where there are a number of new developments along the line of any given bus route.

February 2011

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#### **Written evidence from the Road Haulage Association (RHA) (ETM 31)**

##### SUMMARY OF MAIN POINTS

- Encourage night deliveries of freight.
- Scrap out-dated London "lorry ban" scheme.
- Make greater use of under used M6 Toll road.
- Greater emphasis on 24-hour working on road maintenance and co-ordination of road works between the Highways Agency and local authorities.
- "Freight buses"—ie trucks, should have greater access to priority lanes.
- Police should show greater urgency in opening roads after crashes and have better co-ordination with recovery operators.

##### INTRODUCTION

1. The Road Haulage Association (RHA) is the trade and employers organisation for the hire-or-reward sector of the road haulage industry. The RHA represents some 7,500 companies throughout the UK, with around 100,000 HGVs and with fleet size and driver numbers varying from one through to thousands. Generally, RHA members are entrepreneurs, including many family-owned businesses as well as some plcs. Without the activities of RHA members the UK would come to a halt both socially and economically.

2. In an informal 2008 survey, RHA large members estimated that they had lost around 20% on-road productivity due to congestion. The annual cost of congestion to the UK economy has been estimated at around £20 billion.

3. Our members' trucks are being caught up in continuing traffic congestion. The negative impact of road congestion is acknowledged in section 7, headed "Managing traffic to reduce carbon emissions and tackle congestion" of the "Creating Growth, Cutting Carbon" White Paper.

#### KEY ISSUE

4. The RHA would assert that in tackling congestion the focus should be on the use of the motor car because most congestion is car related. In 2009 there were 415,000 heavy goods vehicles registered (by tax class). These formed part of the 34.3 million vehicles licensed, most of which were cars.

#### SPECIFIC ISSUES

5. The Transport Select Committee has called for evidence about how roads and traffic can be better managed in order to reduce congestion, encompassing both the major road network and urban roads. We will address the issues in the order raised by the committee.

*The extent to which the Government and local authorities should intervene to alleviate congestion and the best means of doing so*

6. Government and local authorities should encourage the adoption of night time deliveries to public and commercial premises. This would allow trucks to deliver at non-peak times, with the advantages of greater road safety, reduced emissions as well as cost and time savings to the truck operator.

7. In London there is the additional complication of the London Lorry Control scheme more commonly called the London lorry ban, which has operated for over 25 years. This scheme has long outlived its usefulness. Most obviously, the completion of the M25 means trucks now go around London, not through it. In addition, trucks are far quieter and far cleaner than they were when the scheme was introduced.

*The extent to which road user culture and behavior undermines effective traffic management, including the relevance to today's road users of the Highway Code*

8. We would welcome a greater focus in the Highway Code on the difference in driving techniques of car and lorry drivers. Such a focus might to some extent help to reduce accidents involving HGVs which in turn can lead to congestion. The RHA's view is that many motorists and some cyclists are unaware of how HGV drivers have to manoeuvre vehicles at junctions, or of issues like HGV braking distances. Having said this we also accept the need for the haulage industry to work continuously to keep the standards of HGV driving high.

*Intelligent traffic management schemes, such as the scheme which has operated on the M42, and their impact on congestion and journey times*

9. Managed motorway schemes help to control congestion. Hard-shoulder running in peak flow periods, whilst a temporary solution only, has worked quite well. However we have not yet seen sufficient evidence that through junction running has been successful, as it may impede vehicles trying to join or exit the motorway, thus causing backed-up congestion.

10. The M6 Toll remains a national scandal driving heavy investment in managing traffic on the Highways Agency's M6. It cannot make sense for the M6 Toll to remain little-used, while the HA road is heavily congested and we urge the government to pump-prime a transfer of trucks to the tolled road.

*The effectiveness of legislative provisions for road management under the New Roads and Street Works Act 1991 and the Traffic Management Act 2004*

11. We urge more night working, and 24 hour working on road maintenance projects to aid quick completion and minimise the economic and environmental costs of congestion. We are concerned that budget cuts may be making this macro-efficient approach less likely.

12. We urge that prior notice be given of major road works on a consistent basis. The RHA has on several occasions managed to persuade roads authorities to rethink work patterns, road closures and diversions. Greater co-operation between the Highways Agency and local authorities is needed. The positioning of works inevitably diverts traffic onto other parts of the network, leading to more congestion if the secondary routes are unsuitable. The RHA would like to see measures adopted in a co-ordinated manner, such as the alteration of traffic light phasing, that could assist the flow of diverted traffic.

*The impact of bus lanes and other aspects of road layout*

13. Trucks should have greater access to priority lanes, by considering them as buses for freight—or freight buses. The RHA has coined the term to support a more progressive approach to trucks in and around urban areas—in particular, to have greater access to priority lanes, such as bus and high occupancy vehicle (HOV) lanes.

14. The RHA has had some success promoting freight bus schemes—for example, South Gloucestershire’s Statement of Reasons for allowing trucks above 7.5 tonnes into the HOV lane on a stretch of the A4147 near Bristol specifically gave the RHA’s freight buses argument as the rationale for the change. Hauliers’ trucks have to be on the roads to serve customers, and will have a minimal impact on the HOV lanes and the trucks’ increased efficiency will save carbon.

15. The RHA would argue further that trucks are in reality more efficient than buses because they only have to run when there is demand and they can vary their route to make sure they maximise loading. Also, there is no alternative to a truck in making deliveries to shops and industrial estates.

*Other issues related to congestion*

16. The role of the police in managing and clearing accidents—different strategies used by police in different areas in handling accident sites can affect congestion significantly, particularly if roads are kept closed for long periods. We would urge that the policy is re-examined. Accidents are cleared too slowly in many cases, leading to severe tail backs.

17. Recovery operators—a number of which the RHA has in membership—could be better used by police forces. At present, the picture is patchy. Hampshire police work closely with their contracted recovery operator to ensure that the accident site is cleared up as soon as possible. Other police areas do not co-ordinate as well. We would welcome the dissemination of good practice nationally.

18. Positioning of road signs is also important—A piece of work currently being undertaken on the causation of bridge strikes has revealed that often the signs are in the wrong place or the bridge is signed incorrectly giving insufficient notice for the driver to divert causing massive disruption whilst the driver tries to turn the vehicle round or worse gets stuck.

CONCLUSION

19. We do not believe there is a magic bullet solution to congestion but would suggest that a positive impact could be made if government and local authorities used the planning regime to facilitate change, perhaps by encouraging people to live closer to areas of work such as city centres.

20. However any successful planning based solution would have to be well worked through, for example because for those with children provision of affordable accommodation close to work would have to be balanced by the availability of good accessible schooling and other amenities. For people in rural areas motor transport might be the only practical means of gaining access to work and amenities and so initiatives to discourage road use might not have the intended effects—as an example, the RHA has anecdotal reports of increase thefts of fuel in rural areas as the high fuel price has increased the cost of motoring.

21. Crucially we see a tension between any desire for efficient strategic planning and the current localism agenda pursued by the Coalition government.

*February 2011*

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**Written evidence from Capita Symonds (ETM 32)**

1. EXECUTIVE SUMMARY

1.1 *Capita Symonds*

Capita Symonds is a wholly-owned division of The Capita Group Plc, a FTSE 100 member and a leading provider of integrated professional support service solutions. With over 4000 UK employees Capita Symonds is a multi-disciplinary consultant delivering property and infrastructure projects and specialising in the Transport Sector.

The Company has over 40 years experience in designing, building, operating and maintaining roads on a local, national and international scale and has many staff who have worked for the Department for Transport, the Highways Agency or Local Authorities during their careers.

1.2 *Basis of Submission*

In preparing this submission we appreciate that in some cases our view may conflict with current policy. However, we believe effective road and traffic management can only be achieved on a national scale by a step change to the way roads are currently managed and operated.

We have deliberately not used technical statistics as we believe these can often be misrepresented and/or misinterpreted to support a particular point of view. Instead our evidence is presented from a “Road User’s perspective”, and from that of an objective practitioner with long term experience of planning and designing roads, and applying technology to solve traffic problems. Added to our experience and the lessons learnt from it as “technologists”, our instinct is to find new ways of doing things better and our evidence is based on a combination of “fresh eyes” along with an informed view.

We have outlined a new approach to managing roads and traffic. There are a plethora of issues which must be faced to achieve this and it is not possible in this submission to cover them all but we have attempted to identify some which we believe are key.

### 1.3 Institutional Arrangements

UK roads are a complex network of carriageways, each with their own characteristics which demand different operational objectives and priorities. Added to this complexity is the fact that different roads are operated by different authorities, each with their own policies and objectives.

The Department for Transport has devolved its operational obligations for the “Strategic Roads Network” to the Highways Agency (HA), but virtually all other operational issues are managed by the Local Authority (LAs).

Whilst strategic and local objectives and priorities are bound to be different, they are currently delivered under institutional and financial arrangements which have evolved over the years and which no longer serve to make the best use of past investments in roads, or provide a basis for how we should invest in the future.

### 1.4 Possible Approach

A radical approach is needed where roads are operated and managed as a single entity according to traffic routes and demand between origins and destinations, regardless of the road operator.

This means creating “Managed Route Network”, formed from the strategic road network operated by the Highways Agency along with significant number of all purpose roads operated by Local Authorities. This concept would support two basic congestion relief measures:

- *Route and Traffic Management*: By giving priority to routes that carry the most traffic and making sure we manage alternative routes properly. This is already done to a limited extent for strategic diversions but on a Managed Route they would be invoked or encouraged dynamically on all viable routes at a local level.
- *Influencing Travel Behaviour*: By giving timely and accurate information as early as possible ie before road users leave the office, town centre, car park or motorway. Congestion is compounded because road users encounter a problem too late in their journey when alternatives are no longer available ie they join their route only to find they could have been given information that would have given them an alternative route rather than joining the back of a queue.

To achieve a Managed Route Network dynamically requires real-time traffic data from all parts of the Managed Route, and converting this into coherent “Traffic Intelligence” enabling road operators to manage their route, and road users to select the most advantageous route for their journey.

To further support this we need to introduce new methods of dealing with our traffic signals, changing them from their current arrangement to a regime where they stop the minimum number of vehicles for the minimum amount of time. This is particularly relevant where there are large numbers of HGV’s where its introduction would offer both better air quality and better traffic flow.

### 1.5 Conclusions

The UK is at the forefront of road and traffic management techniques and practice but, whilst we have the intellectual and technical ability to create the optimum Managed Route Network, we do not have a policy or institutional or financial frameworks to deliver it.

A strategy should be developed which explores the concept of Managed Routes in more detail which will eventually lead to changes in policy. This will require the best people from the Department for Transport, the Highways Agency, Local Government and the Private Sector working collaboratively as an Integrated Team towards a set of common objectives.

Creating the Managed Route Network means abandoning many historically based policies and the thinking behind them but there is strong evidence to show this will save money and deliver wide ranging benefits.

## 2. EVIDENCE POINTS

### 2.1 Prevalence and impact of traffic congestion and likely future trends

Many sections of roads have bottlenecks at peak hours but these are generally predictable. Incidents and breakdowns on the network are random and represent a large proportion of the cause of congestion. When taken as a whole they have a greater impact on people and the economy since they cannot be planned into journeys.

On motorways, the consequences of incidents are more significant due to the volume of traffic affected both on and off the motorway which has a knock-on effect over a large geographical area.

Severe congestion on many major town and city ring roads and by-passes is an economically damaging feature of everyday life. There are many junctions where poor traffic priorities, sub-optimal layout or signal phasing causes extensive and unnecessary congestion.

With few much lower capacity alternative routes and no hardshoulders, even a simple breakdown can cause major problems for the non-motorway network. Statistics of breakdowns and “damage only” accidents which can have the same impact on the road network as fatal and injury accidents are not recorded, even though these represent a large proportion of the causes of delays.

It is predicted that congestion will get worse as a result of projected increase in population and the recovery of the economy, both of which will generate traffic growth. Congestion can be reduced by the following measures:

- by increasing capacity eg new roads and managed motorways;
- by reducing demand eg more use of public transport and reducing travel needs; and
- by making better use of available capacity eg the Managed Route Concept outlined in our Executive Summary.

Future trends are open to influence by transport policy in each of the above areas but in the case of the latter the message is clear: “simple changes could have highly beneficial effects at a low cost”.

### *2.2 Extent to which the Government and Local Authorities should intervene to alleviate congestion and the best means of doing so*

In our submission we advocate the concept of Managed Routes. This would require the Highways Agency and Local Authorities having a “service contract” which requires them to work together rather than just consult.

The Managed Route concept means operating the route as a single entity, with (i) capacity maximised on all significant roads and (ii) true network management at all times, not just when there are incidents. This requires a single road network policy, funding and support which should be overseen by an impartial but knowledgeable body.

Managing the throughput of traffic on a dynamic basis and having effective data to do this will help address the issue of congestion. In simple terms, the way we currently try to deal with or disperse congestion is based on moving the most traffic on any “main” road. We do not look at the air quality issues this creates nor do we look at the traffic queuing on other lesser roads. A wider network of Managed Routes encompassing roads currently administered by both Government (via the Highways Agency) and Local Authorities would enable the impact of congestion on wider and locally important areas to be addressed.

The available capacity on the existing All Purpose Road Network could be significantly improved by carrying out an audit on each of them to determine which of the fixed features on them inhibit their ability to carry their design capacity. Obvious issues are junctions, access points, alignment, traffic signals, bus and cycle lanes etc.

### *2.3 The extent to which road user culture and behaviour undermines effective traffic management—issues of in-car information and reliable and useful information*

Red light infringement, average speed cameras and other enforcement systems can produce beneficial modifications in driver behaviour. However, driver behaviour is notoriously hard to influence and there is inconsistency in the use and application of these systems which undermines the road user’s confidence and compliance. A single cohesive approach to these issues would bring significant benefits in many areas.

All too often information on a total closure or stationary traffic on a section of motorway is received too late or is presented in too obscure a way for many drivers to take alternative routes before they are committed.

The advantages of fixed and variable signs are that they can be seen by all road users. To achieve the same with in-car information means having every vehicle fitted with suitable equipment.

To make the safest and most constant use of such features may require consideration of some external control of vehicles rather than trying to present the driver with visual and audible displays, which can be distracting and will still have variable driver reaction. This is significant step in the way vehicles are driven and what would be required to introduce would need further study.

There is work that can be done now to obtain more accurate data and provide road users with more effective messages in the correct locations.

### *2.4 Intelligent traffic management systems, such as the scheme which has operated on the M42 and their impact on congestion and journey times*

The M42 is claimed to have been successful in reducing the time the motorway is heavily congested. There are, however, fears of how emergency services will cope to access a major accident when the carriageways, including their hard shoulders, are completely occupied by stationary vehicles.

There are other solutions possible which can achieve most of these benefits at much lower cost, freeing funds for investment in the rest of the Network.

### *2.5 The effectiveness of legislative provisions for road management under the New Roads and Streets Works Act 1991 and the Traffic Management Act 2004*

The New Roads and Street Works Act gave utilities the right to take possession of roadspace for repairs or works on their equipment but without the need for sufficient responsibility for coordination with other utilities and highway authorities. The co-ordination of roadworks, and their impact on traffic, does not appear to have been significantly improved by the NR&SWA.

We believe that a review of roadworks procedures should be undertaken where impact rather than time is the key issue to address.

### *2.6 The impact of bus lanes and other aspects of road layout*

Bus lanes, and to a lesser degree cycle lanes, create congestion and make very poor use of lane capacity.

Traffic signal control was developed when maximising overall junction capacity was considered beneficial. This needs to change to a position where we now need to stop the minimum number of vehicles for the minimum amount of time.

The most cost effective way to maximise real time capacity would be a programme of small scale improvement schemes targeted at roundabouts, signal-controlled junctions, pinch points and any other capacity restricting features, together with using technology to provide the means to 'balance' the traffic.

## 3. RECOMMENDATIONS

In preparing this evidence we have touched on several areas which have the potential to improve road and traffic management and extract more benefit. For practical reasons we are not able to present all the information needed to support the points we have made but set out below a list of recommendations to be considered by the Committee:

1. Set up a Steering Committee, chaired by a Department for Transport appointed independent expert, to identify and subsequently set policy for the roads which will constitute the "Managed Route Network". Local Highway Authorities (County Councils, Metropolitan and Unitary Authorities) and the Highways Agency to be represented. The key objective would be to maximise use of the current available road network capacity in real time and to have this supported by targeted investment where capacity improvements will bring most benefit.
2. Set up group(s) under this Steering Committee to deal with the institutional, financial and technical issues needed to achieve goals set. Industry wide experts; Highway Authorities Local Highway Authorities; HA; Transport for London; Department for Transport, Emergency Services and other relevant parties to be represented.
3. Produce effective tools needed for making proper assessment of the impact of congestion on all roads in the Managed Network (equating all purpose roads with motorways) and identify the type of events which create that congestion.
4. Review the Highways Agency's focus on Managed Motorway schemes and (i) look for more cost effective ways of achieving the same results and (ii) balance funding to focus not just on motorways but the significant benefits which can be achieved by better and more intelligent use of technology.
5. Set up a group to produce operational procedures for formal control of roadworks on all roads within the Managed Route Network.
6. Review the Department of Transport's specific role in addressing consistency across all relevant areas of road network signing.
7. Review rules on the use of consultants/contractors as opposed to in-house staff. What we need is the 'best', wherever they may be employed.
8. Re-introduce the once excellent research programme to help properly inform decision making.
9. Re-focus on the carbon footprint caused by stationary vehicles as opposed to those which are moving—different classes of vehicle have different impact.
10. Look at concept of using tolling to allow other vehicles to use Bus Lanes without affecting bus journey times.
11. Introduce a suitable programme to assess how current traffic signal algorithms can be changed to maximise throughput in (i) normal route operation and (ii) in route managed operation.
12. Review roadwork procedures to find better ways of managing the impact of roadworks on traffic flow.
13. Find a means to provide proper basis for the funding and focus of technology developments for the whole of the road network.

We hope that the Committee find value in our submission and we would welcome the opportunity to discuss any detail that may be required by way of clarification or to provide further background needed with respect to our recommendations.

February 2011

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### **Written evidence from the Chartered Institute of Logistics and Transport in the UK (ETM 36)**

1. The Chartered Institute of Logistics and Transport in the UK (“the Institute”) is a professional institution embracing all transport modes whose members are engaged in the provision of transport services for both passengers and freight, the management of logistics and the supply chain, transport planning, government and administration. We have no political affiliations and do not support any particular vested interests. Our principal concerns are that transport policies and procedures should be effective and efficient and based, as far as possible, on objective analysis of the issues and practical experience and that good practice should be widely disseminated and adopted.

2. The Institute has a specialist Transport Planning Forum, a nationwide structure of locally based groups and a Public Policies Committee which considers the broad canvass of transport policy. This submission draws on contributions from all these sources.

#### **ALTERNATIVES TO ROAD PRICING**

3. The Committee seeks evidence on how road traffic can be better managed to reduce congestion in the light of the Government’s decision not to introduce road pricing on existing roads. In the short time available we have not been able to assemble detailed recent evidence about the relative effectiveness of different measures; but we can offer some broad comparisons and comments on appropriate policy choices, which we hope the Committee will find helpful.

4. In considering these it is relevant to consider how far they would achieve the results that road pricing might have delivered. These can be summarised as bringing about a more efficient balance of supply and demand by:

- (i) shifting some demand from the peak to the off-peak;
- (ii) reducing the use of cars by a broad range of measures including encouraging car-sharing, mode shift to non-car modes (public transport, cycling and walking); and the use of trucks by encouraging mode shift from long-distance road freight to rail, among other possible measures including reducing food—and other avoidable—miles through changes in the structure of the industry; and
- (iii) raising funds to improve both roads and public transport.

5. We take also the opportunity to comment on the impact the recently introduced Localism Bill might have on traffic management issues.

#### **TRAFFIC GROWTH**

6. Before the recession car traffic had been growing much less fast than forecast, although some of this shortfall was made up by a rapid growth in light vans. We believe that a better understanding of the reasons for this change in trend is urgently needed. But even a return to traffic levels experienced before the recession plus growth in line with population growth implies road congestion on a level leading to a high social cost (see for instance the detailed estimates made in the UNITE project Deliverable 8 that in 1999 the social cost of congestion in Britain was £12.4 billion) ([www.its.leeds.ac.uk/projects/unite](http://www.its.leeds.ac.uk/projects/unite)).

7. We need therefore to plan for increased travel demand. The Eddington report forecast the increased cost of congestion if no action is taken and we see no reason to question those forecasts. Better managed use of roadspace can also reduce social and environmental costs.

#### **LOCAL ROADS AND TRAFFIC**

8. In most urban areas,<sup>57</sup> apart from London and some of the Integrated Transport Authority areas, serious congestion is restricted to the morning and evening peaks. In the absence of road pricing, peak hour commuting can be tackled by a combination of:

- (i) parking regulation including charging, particularly all-day parking in and around employment, business and retail centres;
- (ii) measures to encourage mode shift, such as bus priorities, cycle lanes and (in some places where the cost is justified) trams or bus rapid transit;
- (iii) park and ride schemes;
- (iv) smarter choices including travel plans at the workplace and school;

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<sup>57</sup> Although congestion is primarily an urban and inter-urban movement problem there are instances of severe congestion in small towns and around beauty spots in tourist areas. Such congestion is often prevalent from mid-morning to early evening but its characteristics and management may be considered concurrently with urban problems.



- (v) more efficient operation of traffic control systems; and
- (vi) better management of streetworks and road accidents.

#### PARKING REGULATION

9. Of these measures, parking controls are likely to be the most effective as they are perceived most directly by motorists. Unfortunately, past attempts to use parking controls to influence peak hour traffic have been undermined by high levels of private non-residential parking (PNR) in city centres and at employment and retail centres. Under current legislation, local authorities have the power to introduce Workplace Parking Charges to overcome some of these problems, but so far only Nottingham has seriously proposed doing so. Other authorities known to have considered the option have not proceeded, possibly dissuaded, in part, by limitations in the legislation and potential enforcement difficulties.

10. Local authorities also have powers to regulate PNR parking charges but have to compensate PNR operators for any loss of income; to our knowledge, these powers have never been used. Some changes in existing legislation could provide local authorities with improved powers that could increase their willingness to use them.

11. We consider that parking is an area requiring further policy development, but we are concerned by what appears to be the emerging approach of the Department for Transport that such measures are solely the responsibility of local government. That is correct so far as adoption and implementation is concerned, but the Department is responsible for providing the legislative powers they need.

#### ENCOURAGING MODE SHIFT

12. Measures to **encourage the use of public transport** will be most effective if combined with measures to discourage the use of cars (the Central London Congestion Charge illustrates clearly the positive effect of combining better bus services with a charge for car use). In the absence of complementary measures to restrict car use, measures to increase public transport use may have only a limited effect on car use, with some of the extra passengers making new (generated) journeys or having transferred from cycling or walking. To the extent that the roads are relieved of traffic by a switch to public transport use that may itself tend to generate new car trips or transfer existing car trips from other congested roads.

13. Nevertheless successive Governments have recognised the benefits of a proactive approach to public transport and the **Quality Partnership** approach first advocated in the Chartered Institute of Transport's report "Bus Routes to Success", now enshrined in legislation, has had significant success in cities and towns such as Brighton, Cambridge, Leeds, Oxford and York. Unfortunately the impacts of the traffic management policies adopted in such Partnerships are not terribly well documented, only the headline figures of increases (or arrested downward trends) having been studied. However there are some valuable before and after studies where significant new infrastructure has been provided, for example in association with the guided busways and High Occupancy Vehicle Lane in Leeds, West Yorkshire (see paragraph 15).

14. **Bus priorities** can be very effective and cost-efficient. If applied at junctions that are saturated at peak times, they will reduce capacity for other traffic (although good design of the schemes can minimise this), but increase capacity overall in terms of the number of people per hour that can pass through the junction.<sup>58</sup> This will only be true, however, if the buses are well-patronised. The extra congestion suffered by the non-bus traffic may encourage some drivers to switch to bus, but higher peak time (and all-day) parking charges are desirable to maximise bus patronage and free delivery vehicles from congested conditions. Similar considerations apply to traffic signal control plans and exemption of buses from turns banned to other vehicles.

15. The West Yorkshire studies confirm that one of the most significant impacts is what happens to road capacity released by car journeys transferred to bus. In one case, the A61 corridor it was shown that the capacity released was quickly taken up by car journeys transferring from adjacent corridors, primarily the heavily congested A660. In another case, the pioneering A647 High Occupancy Vehicle Lane, the capacity released was not taken up but the reduction did not correspond to the increase in bus use. Because of the concentration of surveys in a relatively narrow sector, the investigators were forced to conclude that either there was a large number of unnecessary journeys which was unlikely, or that some journeys were being made more efficiently (for example car sharing on the school or journey to work run perhaps as vehicles occupied by two or more people were allowed to use the HOV lane) or that displaced traffic was dispersed over a wider area than the study could encompass which was feasible given the location of the HOV lane in relation to the Leeds Outer Ring Road and its many connections.

16. The potential to relieve traffic congestion through improved bus services and performance is likely to be adversely affected by the current austerity measures, with cuts in both bus subsidies and forthcoming changes in the Bus Service Operators Grant (BSOG) and the CILT has been examined on these impacts in response to the Committee's Inquiry into Bus Services after the Spending Review.

<sup>58</sup> They can therefore provide additional capacity (compared with growing car use) to support growth in the central area economy of cities.

17. The use of higher (and more widespread) parking charges—particularly in the peak—in central areas should be explored as a means of both increasing patronage of public transport services and helping to fund their provision.

#### PARK AND RIDE

18. Park and Ride (P&R) can be very effective, but only if combined with parking controls in city centres and bus priority measures to give uncongested access to the central area for the buses serving the scheme. However, many P&R schemes require public subsidies both for the capital and operating costs. Such subsidies are generally justified on the basis of congestion relief, reduction in central area space required for car parking and environmental benefits, for which no monetary transfer to public transport budgets is made. Not only is the expansion of the coverage of such schemes under threat but the Institute understands that some existing schemes could be closed.

#### SMARTER CHOICES AND TRAVEL PLANS

19. Recent research suggests that a major effort to promote **smarter choices**, which encompass a range of interventions at organisational and personal level to increase awareness of travel choices and promote use of healthier and more environmentally friendly options can have a significant impact. Smarter Choices includes programmes such as School, Workplace and Personal Travel Planning.

20. **Travel Plans** at major traffic generating locations (workplace, hospitals, schools, etc) can be highly effective by encouraging car-sharing and the use of non-car modes. They need to be well thought out and provide alternative means of transport if the car-share arrangement breaks down on a particular occasion (some schemes offer free tax rides home in these circumstances). They require a major staff effort by the local authority in collaboration with major employers and Chambers of Commerce. Increasing the use of cycling also requires the provision of secure cycle storage and shower/changing facilities at places of work.

21. If applied on a large scale, smarter choices initiatives are labour intensive and local authorities may not be able to afford the cost in the current financial circumstances. Indeed, it is our understanding that this is an area in which local authorities are planning to cut back substantially as part of the required cuts in their spending which appears perverse in both economic and environmental terms as the Benefit:Cost ratios for, for example, the DfT's Sustainable Travel Towns programme have been estimated at a minimum of 4.5 to 1 and probably significantly more, comparing very well with many highway improvement schemes which are being allowed to proceed.

22. Given rising travel costs (bus fares, train fares and fuel costs) and the increasing pace and dexterity of IT applications smarter choices might also explore the opportunity for people to travel less eg: by staggering their journeys more or working from home or from a base closer to their home location

#### TRAFFIC CONTROL SYSTEMS

23. Most large cities already use efficient systems to manage their traffic lights (mainly the SCOOT dynamic control and TRANSYT fixed programme systems). But all systems need regular review and updating to ensure that they are operating in an optimal fashion. This requires both funding and a high level of technical skill, both of which are under threat with the current austerity measures.

#### MANAGEMENT OF STREETWORKS AND ACCIDENTS

24. Recent studies by Transport for London (TfL) have brought out the disruption caused by streetworks (particularly by the multitude of utility companies with rights of access), as well as by accidents and other incidents. All need to be managed more efficiently. We need to gain experience from large-scale introduction of lane rental for streetworks and the rapid management of accidents, learning from the Highways Agency's Traffic Officers (as well as the management of incidents on the M6 Toll).

#### INTER-URBAN ROADS

25. Congestion occurs on motorways and trunk roads mainly at peak times in the vicinity of major cities. It is caused predominantly by peaks in car traffic, particularly commuting to work. In the short to medium term, hard shoulder running coupled with greater lane discipline and regulated speeds (managed motorways) can increase capacity at relatively low cost. Speeds are reduced to 50mph or less, but journey times are improved and more reliable.

26. These measures will buy some time, but because of long lead times for the construction of new capacity, policies need to be formulated now to deal with further traffic growth. Moreover, the closer system is running to capacity, the lower its resilience to incidents and poor weather, leading to increasing and more frequent delays, and thus unreliability.

27. Apart from increasing capacity (including hard-shoulder running and other "managed motorway" techniques) or introducing peak time charges on the motorway itself, reducing congestion on motorways is unlikely to be achievable without measures to manage levels of peak hour urban commuting.

28. CILT's view is that the Government cannot therefore discharge its responsibilities for the proper management of motorway traffic and the efficient movement of freight without taking an interest in the management of urban car commuting. Conversely, it would be wrong to try to control motorway traffic (for example by ramp metering) without considering the impact on local roads, taking account of the local demands upon them as well as the requirement to distribute traffic from the national network. Motorways and trunk roads form a key part of many metropolitan area networks and should be managed as part of an overall strategy agreed by both local and central government, the latter acting through the Highway Agency.

#### FUEL TAX AND ROAD USER CHARGES

29. Some people suggest increases in fuel duty as a way of reducing overall traffic growth. In our view this would be unfair and inefficient. People travelling at off-peak times and in rural areas already pay more than the external costs of their journeys and road users generally pay more in fuel duty than would be justified as a carbon tax. Moreover, as the use of electric cars becomes more widespread, an unfair distinction will arise between electric car users, who make no contribution to the cost of providing and managing the road system through fuel duty, and petrol or diesel users who do. This distinction might be thought reasonable in the early days of electric cars, as a means of encouraging their use, but in the medium to longer term it will be grossly inequitable.

30. Apart from unfairness, higher levels of fuel duty would affect all journeys, including those in places and at times where and when there is no reasonable alternative to the car, and would not have a sufficient effect on peak hour congestion, where very large increases would be needed to reduce external costs to an efficient level. Electronic charges for road use related to distance and time would be much fairer as well as economically more efficient.

31. CILT has long advocated fair pricing for all road users. Although the Government has decided not to introduce a national road user charging scheme, it has not said that individual local authorities cannot do so. The powers for local authorities to introduce local road user charging are still on the Statute Book,<sup>59</sup> and if a charging scheme appears to be more effective and fairer than other measures (workplace parking levies, for example) local authorities could still promote it. They ought certainly to examine the option in broad terms so that proper comparisons can be made. Charging has the potential to provide a local funding stream to support capital investment in local transport schemes. In an era of increasing localism and lower central government grants, the alternative to road user charging may be one or a combination of measures and effects including higher local council taxes, higher local parking charges, poorer public transport, increasing congestion and travel time unreliability, and deteriorating roads.

#### ENFORCEMENT

32. Many of the measures identified in this evidence depend on effective enforcement. Effective in at least three respects:

- (i) the necessary legislation is in place and is beyond reasonable challenge when applied properly;
- (ii) levels of non-compliance are low—sufficiently low to discourage some from deciding that non-compliance is worthwhile, because the combination of the chances of being caught and the impacts of the penalties when caught are less than the disbenefits of compliance; and
- (iii) the costs of enforcement are low, and are at least offset by the revenues obtained.

33. These requirements serve to emphasise the key roles the Department must continue to play, both legislative and technical, and to do so at a high level of professional competence.

34. They also discriminate between the suitability of some of the measures we have outlined in this Evidence. For example, the ROCOL Working Group that advised the first London Mayoral candidates on how they might use the charging powers provided under the Greater London Act (1998) concluded that the provisions of the Act would make enforcement of Workplace Parking Levies with London very difficult, and costly. It is also important that enforcement does not need to involve the police, that measures can be enforced using civil proceedings, as is the case where parking and bus lane use offences have been decriminalised.

#### LOCALISM AND THE ROLE OF CENTRAL GOVERNMENT

35. CILT welcomes and supports the devolution of powers relating to transport and land use planning from Central to Local Government. It considers that too many powers and functions have moved from Local to Central Government over recent decades. However, to be effective, it is essential that local authorities have greater financial independence, in both the raising of funds (both capital and revenue) and in their expenditure, as well as in their ability to adopt policies best suited to their locality. The Institute is of the view that much more needs to be done in both areas.

36. But, it is essential that Central Government provides the support Local Government requires to fulfil its responsibilities. The Institute is very concerned that the Department for Transport might use "localism" as a rationale for cutting many support services, including research and the development of frameworks that Local

<sup>59</sup> These powers for road charging have not so far been widely used with the Central London Congestion Charging Scheme and small access control schemes in Durham City and the Derbyshire Dales being best known. Nottingham City Council is considering the alternative of workplace parking levies.

Government needs. In particular, the Institute is concerned that the Department ensures that the legislation, both primary and secondary, required by Local Government, is prepared and managed through the Parliamentary processes in a timely and efficient manner. The Department can stand back from the development and implementation of local policies but it cannot, it must not, stand back from its critical enabling role. Similar requirements apply to the Department of Communities and Local Government.

#### SUMMARY

37. In conclusion, we believe that there are alternatives to road user charges to tackle congestion. But whereas road user charges can produce substantial net revenue, the alternatives generally tend to cost money. Resources for such measures are in very short supply. Thus we regard including road user charges in the set of measures considered in tackling congestion as being even more crucial in the current circumstances than when money was more plentiful.

*February 2011*

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#### **Supplementary written evidence from the Chartered Institute of Logistics and Transport in the UK (ETM 36a)**

1. At its oral session on 29 March, the Select Committee asked whether bus lanes reduce congestion. The short answer is that bus lanes generally reduce congestion in terms of the aggregate delays to people (not necessarily vehicles) using a road but may well increase the length of traffic queues, depending on the circumstances. It may be helpful to the Committee if we set out in more detail why this is so.

2. The basic mechanism by which bus lanes can reduce congestion is by making bus services more attractive and bringing about a mode shift from car use. As a well-occupied bus can carry far more people than a car, buses can transport more people into city centres and other key locations than cars, a key policy consideration when vehicular traffic demand exceeds the capacity of the local roads. To illustrate this point, if all the passengers now travelling by bus into city centres were to switch to cars, there would in most cases be a large increase in congestion and in many places the roads would not be able to cope. Conversely, if people now travelling by car switched to bus, there would be a fall in the vehicular demand for road space.

3. But there are some very important provisos to this:

- (a) A bus lane may reduce capacity for other traffic on the section of road containing it. Delays to other traffic are often minimised by stopping the bus lane short of busy junctions (the main constraint on capacity in cities). For the bus lane to have a positive economic impact there needs to be a regular flow of well-patronised buses whose passengers benefit by more than the disbenefit suffered by car users. However, there are also likely to be environmental benefits resulting from any significant switch from car to bus.
- (b) In some cases (of which examples were referred to in paragraphs 12 and 15 of our initial memorandum) the bus lane will reduce congestion for other road users as well. For example instances have been recorded where the discipline imposed by the bus lane (principally through stopping lane switching) actually improves the flow of other traffic through saturated junctions.
- (c) But in some of the cases we cite, the initial drop in congestion led to a growth in non-bus traffic leaving the local congestion the same as before. Much of this extra traffic was found to have switched from other congested routes, but it is also possible that some traffic was generated rather than transferred, a familiar consequence of creating (actually releasing in this case) additional highway capacity.
- (d) The detailed design of bus priority measures is important. If the demand for non-bus traffic is great enough, bus lanes can cause traffic to block back to junctions further back, which prevents the buses from getting to the bus lane in the first place. This can be mitigated by using techniques like traffic signal priority for approaching buses or segregated “bus advance” lanes giving buses earlier green signals than general traffic at the preceding junctions—such techniques have been used successfully in London, York and elsewhere.

4. As a general observation, bus lanes (or other traffic management measures for that matter) implemented in isolation are rarely as effective as packages of complementary traffic management measures implemented together on a route or corridor basis. A good example of this is the London Bus Priority Network implemented by the London Boroughs in partnership with Transport for London.

5. The way to avoid the problems of generated or transferred traffic, referred to in paragraph 3(c) above, and to reinforce the mode switch from car to bus, is to use demand management measures to discourage car use in congested areas and keep overall traffic levels comfortably within the capacity of the network—for example by restricting the supply of all-day parking and/or increasing the price. The most successful park and ride schemes do this:

*April 2011*

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## Written evidence from the Institution of Engineering and Technology (IET) (ETM 39)

### EFFECTIVE ROAD AND TRAFFIC MANAGEMENT

1.1 The Institution of Engineering and Technology is one of the world's leading professional bodies for the engineering and technology community. The IET has over 150,000 members in 127 countries and has offices in Europe, North America and Asia-Pacific. The Institution provides a global knowledge network to facilitate the exchange of knowledge and to promote the positive role of science, engineering and technology in the world.

1.2 This evidence has been prepared on behalf of the IET Trustees by the Transport Policy Panel. The IET would be pleased to provide further technical assistance and evidence as part of this inquiry.

### SUMMARY

1.3 The Eddington Transport Study shows that a 5% reduction in travel time for businesses and freight can lead to a reduction in costs of £2.5 billion and through general reduction in traffic levels and the derived benefit of more predictable journey times on the road network, around £7–8 billion of GDP per annum could be generated. The Department for Transport in estimating the feasibility of introducing a national road pricing scheme, suggested that time savings and the value of increased journey reliability could total £12 billion a year to the UK economy.<sup>60</sup>

1.4 Such examples show the increasing need for traffic management schemes and measures which can reduce congestion. Such schemes need to be developed with the user in mind, with the impact of road and traffic management schemes on drivers and the wider public being properly addressed as part of any project. This would ensure high levels of compliance, an understanding of the rules and an appreciation of the unintended consequences that may arise.

### *The prevalence and impact of traffic congestion and likely future trends*

1.5 In December 2006, Sir Rod Eddington submitted his Transport Study to government. The study looked at the long term links between transport and its impact on the UK's economic productivity, growth and stability. The report shows that 73% of passengers and 65% of freight travel are moved using the UK road network.<sup>61</sup>

1.5.1 The report used figures from the 2001 Census and the National Travel Survey 2005, which showed that of the 30 million commuters in the UK, 55% of their journeys are destined for large urban areas and over 52% of business journeys start or end in the 22 largest urban areas.

1.5.2 Within freight, 72% of journeys are over 100kms, with their surface access routes to ports and airports, often being the same routes shared with urban and inter-regional passenger traffic.

1.6 Looking to the future Eddington makes some stark observations. If no action is taken to address congestion, there will be a 31% increase in road traffic and a 30% increase in congestion, which would waste £22 billion worth of time in England alone by 2025.

1.7 The cumulative impact of all this will be an increased cost to business of £10 billion a year, a cost of £12 billion in wasted time for households and 13% of road traffic being subjected to stop-start travel conditions, primarily in urban areas where most journeys take place. It should be acknowledged that the recent recession may have slightly reduced these figures but the overall trend is still valid.

1.8 Additional figures for London, the UK's largest urban area, show that with no intervention there would be up to a 20% increase in vehicle delay by 2031, and with both funded and unfunded intervention measures and projects taken into account, up to 14% increase in vehicle delay.<sup>62</sup>

1.9 International examples such as the 100km traffic jam in Beijing which lasted for almost two weeks, demonstrate that where no alternative plan exists for motorists, traffic congestion will get worse. There, a combination of freight from Inner Mongolia and urban and inter-regional passenger traffic, combined with scheduled road works, led to 11 days of stop-start traffic. Such examples illustrate the need for government and local authority action to manage congestion, but also crucially information sharing with the wider public around traffic disruptions and changes.

1.10 The availability of efficient transport is a heavy influencing factor in overseas businesses decision to invest in new offices and employment in the UK. A report by PricewaterhouseCoopers came to the conclusion that "transport infrastructure stimulates FDI inflows to a country, since companies looking to invest will benefit from better accessibility and reduced transport cost."<sup>63</sup>

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<sup>60</sup> Feasibility Study of Road Pricing in the UK: A report to the Secretary of State for Transport, DfT, July 2004

<sup>61</sup> The Eddington Transport Study, December 2006

<sup>62</sup> Mayor's Transport Strategy, May 2010

<sup>63</sup> Transportation & Logistics 2030—Volume 2: Transport infrastructure, PricewaterhouseCoopers, 2010

*The extent to which the Government and local authorities should intervene to alleviate congestion and the best means of doing so*

1.11 The Department for Transport in its published Business Plan for 2011–2015, has made clear its intention to “no longer micro-manage”, but there is a clear distinction between fostering development where a national solution is more practical and involvement on a day to day basis. With the financial pressures facing the public purse and local authorities, concerns must be raised about who will be tackling traffic congestion.

1.12 National networks are managed by the Highways Agency, and are interlinked with local routes, yet evidence suggests that little joined up management or strategic planning exists between the two and where it does (such as the Highways Efficiency Liaison Group), the focus is on finance and funding not strategic planning. As we have seen in the example above from China, if we leave it to the individual traveller nothing will get done. The Government has a clear role to play as arbiter at least in the interim, to ensure more strategic planning in congestion hot spots.

1.13 The Highways Agency through its work *Tackling Congestion by Influencing Travel Behaviour* (centred around “Travel Plan Schemes” and “smarter travel choices”), has tried to engage with the public and local authorities to develop a package of measures to reduce reliance on cars, tailored to each individual area.<sup>64</sup> However the evidence is that traffic congestion is still going up and will continue to rise.

1.14 More effective measures must be pursued such as achieving a modal shift to public transport, which is one method of tackling congestion; additional measures include ensuring delivery of a more reliable journey using existing road space. The Government should proactively engage with bodies which can contribute smart systems to achieve both outcomes without the need for more road space, and encourage the development, testing and deployment of such systems nationally.

1.15 Despite the examples across the country of schemes being used to tackle congestion, there does appear to be an element of short-termism and limited leadership in both current and past government strategy. Road user charging on a national scale has been ruled out (aside from HGV’s) by the current government as a measure to tackle congestion.

1.16 The evidence from large urban areas (where the majority of journeys commence or terminate) demonstrates that such schemes can be configured to work in some cases. The Government should make it clear to local authorities, that where traffic congestion is a key problem, they should not rule out some element of congestion charging, if it would encourage modal shift to public transport or changes in behavioural patterns (eg travelling outside rush hours or car sharing).

1.16.1 In London with the introduction of congestion charging, traffic has been reduced by 21% and a shift to public transport of 6% has been recorded during charging hours. In Stockholm, where a similar scheme was piloted in 2006, there was a 20% reduction in traffic and a subsequent referendum, after the pilot, asked residents if they wanted to keep the scheme and this was won with residents in Stockholm voting yes.<sup>65</sup>

1.17 There is also an important role for information and data sharing if we are to alleviate congestion. The second Quarmby Report on Winter Resilience, published in December 2010, highlighted the improvements made by some local councils in providing up to date traffic information on their websites, including traffic cams, state of roads and opportunities to sign up for updates via text and social media.<sup>66</sup> However, such action is undertaken by motorists at a time of urgency ie if they can’t leave their homes, rather than before a standard daily commute.

1.18 While the actions of local councils who have taken measures to upgrade the information provided to road users must be applauded, more needs to be done to share information between local authorities and between the traffic agencies and local authorities, so that a unified and real-time system is available to road users when needed. If a local authority is unable to support its own traffic information service then at minimum it should make the underpinning data available to potential users, as advocated by the EU Directive on deployment of Intelligent Transport Systems.

1.19 The most important part of congestion management is reliability and the ability to plan journey times, local authorities do not generally have the expertise to consider and implement such systems. The Government must do all it can to ensure such services do not suffer as a result of reduction in local authority funding. There is also a key role for the Government to play in setting standards and ensuring openness of data, to allow the “Digital Economy” to develop information sharing solutions.

1.20 The commuting environment has changed profoundly over the last few decades, such activity can no longer be done by humans alone as it is now too difficult. Managing traffic today demands intervention, as it is too difficult for the large numbers of very independent individual drivers and it requires management on much larger areas than was the case five years ago, local and national networks have to be linked and co-managed as a result. All of this requires Government intervention to set the technical standards and the management frameworks to ensure effective operation.

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<sup>64</sup> Highways Agency, <http://www.highways.gov.uk/knowledge/9575.aspx>

<sup>65</sup> Road User charging Fact file, The Institution of Engineering and Technology, 2010

<sup>66</sup> The Resilience of England’s Transport Systems in December 2010, David Quarmby CBE, December 2010

*he extent to which road user culture and behaviour undermines effective traffic management, including the relevance to today's road users of the Highway Code*

1.21 In most professional walks of life, where an exam is required to receive certification to practice, Continuous Professional Development forms an integral part of ensuring existing knowledge is kept up to date. Unfortunately such CPD is lacking for car users (for practical reasons), and a culture has developed which requires road users to pass a driving test and not necessarily to learn to drive a car, the lack of respect for rules (ie "they are for everyone else") is also a key issue that needs to be tackled.

1.22 The Quarmby Report raises questions about the general understanding amongst the public around the realities of snow and ice on roads. Driving lessons and tests take place in normal weather conditions and because increasingly drivers are taught to just pass the test, this has a knock on effect on future knowledge levels outside "normal" conditions.

1.23 Driving has become an ever more complex activity, the pass rate for driving tests is on a constant downward trend from 63% in 1935 to 43% in 2003–2004<sup>67</sup>, questions have to be raised about the 18 year old who passes their driving test today, who can be expected to drive for over 50 years without receiving any update on changes in the environment in which they are allowed to drive, or any information being provided on changes to the law. It is also worth noting that the DfT Business Plan states the Government will no longer "waste money" on ineffective national advertising and marketing campaigns.

1.24 The Highways Agency implemented a scheme on the A14 which uses average speed cameras to monitor compliance with the national speed limit. This is an example of speed camera use which has delivered some results in mitigating road traffic accidents. Since their installation in 2007 on the Bypass between Huntingdon and Cambridge, the fatality rate has remained at zero and delay caused by incidents and roadworks has decreased in both directions. However, the increase in traffic flow has led to a marginal increase in recurrent delay attributed to the total weight of traffic.<sup>68</sup>

1.25 An independent review commissioned by the RAC Foundation<sup>69</sup> on speed cameras, found that:

1.25.1 they lead to a considerable reduction in speed and collisions in their vicinity, which has persisted over time. One study in West London showed a reduction across the wider road network beyond the area of the camera

1.25.2 there was an increase in speed recorded at sites where speed cameras were clearly out of action.

1.26 Of course, compliance can only take place in a system where the rules are known and ideally uniform. The Highways Agency currently sets speed limits for motorways and trunk roads, with various traffic authorities able to set the speed limits on other roads. In the UK, speed limits can vary from 20mph to 70mph. This wide range creates the conditions for confusion, especially when the limitations of driver knowledge mentioned above, are factored in. For example there are currently signs for maximum speed limits, speed limit zones, speed limits on motorways and minimum speed limits, including differences in the national speed limit between single and dual carriageways and rules on speed limits where roads with differing speed limits intersect at a junction.

1.27 If road users are to be expected to self-comply with speed limits, steps need to be taken to ensure people know what the rules and speed limits are; this may not be as straightforward as it seems. There needs to be an acceptance by policy makers that drivers are human and as such are fallible. On that basis a safety system needs to be created where traffic management is looked at as a whole, where driver exposure to risk is designed out and minimised, rather than one which looks at issues in isolation.

*Intelligent traffic management schemes, such as the scheme which has operated on the M42 and their impact on congestion and journey times*

1.28 The M42 Managed Motorways, Active Traffic Management Scheme is an example of an innovative scheme which uses a combination of controlled motorways, hard shoulder use and ramp metering, to develop a solution to traffic congestion. The evidence of its success is well documented, which includes a 24% reduction in average journey times, 27% improvement in journey reliability and a rollout which was 40% cheaper than building an extra lane. Personal injury accidents also decreased from 5.1 to 1.8 per month.<sup>70</sup>

1.29 Such a successful scheme works because the driver is actively engaged in complying with the rules; the Highways Agency should be encouraged by the government to be more creative with other uses of traffic management, including the planned rollout of more Managed Motorways schemes.

1.30 Localised control schemes exist such as SCOOT, which is used in many large urban areas, the implementation of which has an average reduction of around 20% in traffic delay. SCOOT is an adaptive traffic control system. It coordinates the operation of all the traffic signals in an area to give good progression to vehicles through the network. Whilst coordinating all the signals, it responds intelligently and continuously as

<sup>67</sup> Driving Standards Agency, <http://www.dft.gov.uk/dsa/category.asp?cat=344>

<sup>68</sup> A14 Huntingdon to Cambridge Safety Cameras—LNMS Evaluation Report, Highways Agency, July 2009

<sup>69</sup> The Effectiveness of Speed Cameras—a review of evidence, A report by Richard Allsop for the RAC Foundation, November 2010

<sup>70</sup> As reported by Mike Wilson from the Highway's Agency at the IET's Management Motorways event, December 2010

traffic flow changes and fluctuates throughout the day. It removes the dependence of less sophisticated systems on signal plans, which have to be expensively updated.

1.31 Data collected from such schemes could be used to better understand the relationship between congestion, demand, management measures and emissions. Such information, currently not often used by traffic managers, could be useful to the general public to inform in-trip decision making.

1.32 Getting the most out of roads needs an integrated network approach and a network-wide management approach, which means an ICT based system. Traffic control centres operated by human monitoring, can't cope with the volume and changes in traffic congestion any more than the national air traffic control system can run with just air traffic controllers and no automated computer monitoring systems.

#### *The impact of bus lanes and other aspects of road layout*

1.33 One of the most effective ways to reduce traffic congestion would be through a modal shift from cars to public transport where such capacity exists. This would free up space on the road network for non-passenger journeys such as freight. Buses are an efficient way of transporting passengers in an urban setting when compared like for like with cars. To ensure that buses do not suffer from the same plight of traffic congestion (which would reduce their overall benefit); bus lanes are used to reduce delays for public transport.

1.34 Even where bus lanes operate, there are opportunities for innovation. Just as signals on the rail network can be used to prioritise express trains over local services, signals can be used to divide up the bus lane network into blocks, to allow cars to use bus lanes when no buses are nearby. Several aspects of such a system already exists, buses in some UK urban areas update the countdown timers at bus stops using GPS, they could therefore update roadside signals or in car systems, to make them aware of their position in advance and as such clear that section of the bus lane of car traffic. This concept is not dissimilar to the hard shoulder running aspect of the Management Motorway Schemes used on the M42.

1.35 Other innovations include allowing taxis to use bus lanes, however as mentioned earlier, a uniform and consistent approach across an area is needed. The Newcastle experience of "no car lanes" is an example of bad practice, with differing rules for different times of day, different councils opting for different rules on what constitutes a "car", and virtually no traveller information provided in advance of a necessary lane change. All this has the effect of a system being created, which causes much confusion for the road user. Compliance levels can be expected to fall under such a system and the net effect is less effective traffic management.

February 2011

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### **Written evidence from the AA (ETM 41)**

#### **1. INTRODUCTION AND SUMMARY**

1.1 Throughout its 106 year history the AA has been looking after the interests of drivers. It has sought to improve the condition of the roads they drive on, looked after their safety and campaigned to ensure they are treated fairly. The AA is the UK's largest motoring organisation. It engages with its members through numerous communication channels, ranging from the internet, a mailed magazine, direct contact by letter, telephone and through polling. The AA "members' panel" which comprises of 170,000 people, who agree take to part in monthly AA/Populus surveys on a range of motoring issues, was created in 2008. The panel is the largest dedicated motoring opinion panel in Europe. The AA website also hosts a motoring discussion "zone".

1.2 Private motoring is an essential part of 21st century life and is something people continue to aspire to, and even enjoy—although it is certainly no longer a luxury and should not be treated as such. Motoring is the main form of transport for 86% of passenger journeys. Many people are dependent on the car and the mobility of the car benefits society in many ways. However, congestion and unreliable journeys are a significant problem for motorists and businesses. The "quality" of the roads is also an issue for members. In a survey in February 2011, 81% said that road surface condition had deteriorated over the last three years (57% said it had deteriorated significantly). The way that roads are managed is also a key issue for drivers. In AA/Populus research 72% said they did not agree that the Government and local councils were doing all they could to facilitate road use. A majority of AA/Populus panel members support the construction of new and improved roads. Motorists accept they must pay for their motoring but resent being seen as a "problem" and oppose unjustified escalation of costs such as fuel, road tax, parking charges and road pricing. AA members often have very differing views on many of the key motoring issues.

1.3 The UK's road system is critical to the national economy and at local level to daily household life, business vitality and social need. Most trips, even ones by rail, involve a road element and the majority are completed entirely by use of roads. At local level there is a feeling that congestion is a fact of life and that nothing can be done to alleviate it. Roads are by far Britain's most extensive and comprehensive transport system—nothing can replace them in terms of fulfilling households' and businesses' needs for goods and services distribution and also for providing access to education, work, pleasure and a myriad of other things.



## 2. COMMENTS ON SPECIFIC ISSUES RAISED IN THE CALL FOR EVIDENCE

### 2.1 *The prevalence and impact of traffic congestion and likely future trends*

2.1.1 Traffic congestion is a daily fact of motoring life for many drivers in the UK. At peak travel times numerous vital road links are often reduced to a slow crawl. Routes to and from most towns and cities are often congested, and even our motorways suffer congestion in places, often at key interchanges, with traffic often backing up onto the motorway traffic lanes. This is a common occurrence just yards from our office in Basingstoke where the limited capacity of the adjoining road network junction often forces traffic to queue on the M3—this situation has existed for decades despite (never fulfilled) plans for a major improvement to the Black Dam roundabout. In economic terms this is very wasteful to business and individuals and it also impacts on traffic safety as standing traffic on motorways is potentially very dangerous. This is just one example of a situation which exists throughout the UK.

2.1.2 An AA/TrafficMaster study in 2009 found that in the first eight months of 2009 1,700 accidents and incidents resulted in over 5,000 hours of motorway closures. The following were identified in the study:

#### TOP TEN MOTORWAYS CLOSED (JAN-AUG 2009)

M25	(closed for 206 hours)
M1	(189 hours)
M6	(179 hours)
M5	(153 hours)
M40	(124 hours)
A1(M)	(74 hours)
M4	(73 hours)
M62	(53 hours)
M2	(48 hours)
M11	(41 hours)

Other notable closures outside the top 10 were in Scotland, the M74 (29 hours) and M8 (25 hours).

The M32 near Bristol suffered from 12 hours of closure as did the M3.

2.1.3 It is perhaps unsurprising that UK roads suffer more congestion than many other EU countries. We have a dense pattern of roads which often follow centuries old routes, we also have a large driving population and public transport networks often lack penetration and frequency. Our inter-urban routes have largely bypassed communities, but we have not upgraded our local roads anywhere near enough to reduce congestion hot spots.

2.1.4 The AA believes that congestion will continue to blight journeys in the UK and believes it will worsen as the economy moves out of recession. The reduction in road building and improvement in the last decade will undoubtedly lead to a worsening of congestion in the next few decades. Even our motorways will not be immune as the policy of “making best use” could backfire when the recovery is fully under way and traffic levels start to grow again—perhaps more rapidly than in previous times of economic cooling and prosperity.

2.1.5 Congestion is wasteful to the economy and bad for the environment. The AA estimates that an average petrol car, consumes 0.72 litres of petrol per hour and each litre produces 2.36kg of CO<sub>2</sub>. Therefore 1000 cars idling in a queue for ten seconds would produce 4.7 kg of CO<sub>2</sub>. Five days a week and 48 weeks a year, they would produce 1.128 tonnes of CO<sub>2</sub> while stationary.

### 2.2 *The extent to which the Government and local authorities should intervene to alleviate congestion and the best means of doing so*

2.2.1 At local level there is a feeling that congestion is a fact of life and that nothing can be done to alleviate it. As mentioned above traffic congestion is wasteful to the economy and unhelpful in terms of achieving our CO<sub>2</sub> targets. Highway authorities have a legal duty under the Traffic Management Act 2004 to act expeditiously to facilitate the smooth flow of traffic for road users. They should indeed intervene to make this happen. However, the AA believes that not enough is being done to evaluate and minimise congestion at national and local level. Some progress has been made in monitoring journey time reliability on the worst 100 or so strategic roads but even here some of the improvements have been due to less traffic over the last few years not road management and construction. In some instances improvements to journey time reliability occur simply because road works have ceased.

2.2.2 Solutions, particularly at local level, are often simple and straightforward, for example re-phasing traffic lights, making junction improvements, widening roads or cracking down on disruptive road works. To some extent the relatively new role of “traffic manager” within local highway authorities is helping, although we think there is considerable variation in the importance this is given from authority to authority.

2.2.3 The AA believes in the importance and integrity of a national traffic signing system and does not support wholesale abandonment of national standards and local variations. Drivers must expect key types of traffic sign to be the same whether they are in Bradford or Brighton especially as failure to comply can result in a traffic offence or perhaps an accident. Many traffic signs are not “clutter” but are essential for directing or

regulating traffic. Temporary signs to events like those erected by the AA are essential traffic management tools which can be erected and removed quickly and fulfil a useful traffic management function.

2.2.4 The AA has supported the role of Highways Agency traffic officers but thinks more should be done to improve incident management on motorways. Numerous initiatives have been promised but so far a number remain to be fully implemented for example, privacy screens to prevent “rubber necking” at accidents, proper signed diversion routes around key motorway junctions, quicker accident investigation and variable speed limits at motorway road works. We welcome recent adjustment of motorway central barriers at some key points to allow trapped traffic to be released and think this should be rolled out fully. We remain concerned about the “welfare issues” which occur when motorways are closed for long periods and people are trapped. The biggest complaint from people in these circumstances is lack of information. The AA also supports the need for the quicker closing of key motorway slip roads to prevent traffic joining already blocked motorways.

2.2.5 Some argue that demand management measures are the only way to reduce traffic congestion and manage roads efficiently. They include road pricing/congestion charging and workplace parking levies as prime examples. However, these measures are deeply unpopular and lead to significant unintended consequences, for example pricing those, who can least afford to drive, off the road.

AA/Populus polls have found that:

- 45% oppose national road pricing.
- 42% support the principle of “pay as you go” motoring.
- 86% do not believe government would deliver any promised quid-pro-quo reforms to motoring taxation if road pricing was introduced.
- 67% are opposed to local congestion charging schemes.
- 78% in the NW opposed local congestion charging schemes (Manchester).
- 68% in London opposed local congestion charging schemes.
- 84% agreed that a workplace parking levy was simply another way of taxing people who work.

2.2.6 The Central London congestion charging scheme initially took around 20,000 private cars off the road in the morning peak, in traffic flow terms this is a very small number. Traffic congestion did reduce but this was mostly because “complementary measures” were introduced to improve traffic flow for example, junction improvements, the re-phasing of traffic lights and the removal of road works. However, congestion levels are now back to the level they were before the scheme started, despite a continuing small decline in the number of private cars entering the central area in the morning peak. In Central London the speed of traffic has not changed significantly in almost a century, largely because of all the activity involved in servicing a capital city—buses, delivery lorries, taxis, building works, road works, incidents, events and so on. Traffic problems are not all due to private motoring—many other cities in the UK also experience this to a more limited degree.

2.2.7 Bona-fide and fully accredited roadside assistance organisations are granted 100% discount from the Central London congestion charging scheme. This is because their role is regarded as being crucial in keeping London’s streets moving, through delivering prompt service to vehicles broken down at the roadside. This concept could be extended by allowing these defined organisations to use bus lanes to enable them to reach and deal with breakdowns in traffic quicker than at present. It could apply to bus lanes across the UK.

### *2.3 The extent to which road user culture and behaviour undermines effective traffic management, including the relevance to today’s road users of the Highway Code*

2.3.1 It is interesting that much is made of driver attitude and behaviour in Britain. However, despite anger and concern with the “irresponsible minority”, UK road accident casualty statistics are at record low levels and are the best in Europe. This does not mean we can be complacent.

2.3.2 It is also often said by some that car drivers are selfish and only comply with traffic rules and laws which suit them. This generalisation is far from the mark and the majority of drivers do their best to comply and understand. However, this compliance and understanding often requires considerable effort on the part of drivers. Traffic rules, road systems and parking arrangements are often highly complex. With heavy traffic flows, congested urban areas and busy motorways it is sometimes not surprising that driving is a complex task. Highway authorities are also devising increasingly complex traffic management schemes, signing programmes, and restrictions on movement—sometimes these schemes go against the grain of “natural” motoring behaviour. A good example is bus lanes which sometimes do not allow sensible left turning behaviour—drivers may want to decelerate smoothly without impeding the flow behind them—but to avoid getting a penalty notice drivers are forced to say in their lane until a break in the bus lane, which often occurs very close to the left turn.

2.3.3 Some say that road user culture and behaviour should actually be “allowed” to flourish more—for example, by encouraging the removal of traffic lights, road markings, safety railings, and developing the concept of shared space. In an AA/Populus poll carried out in April 2009, 73% disagreed with the shared space concept (55% disagreed strongly). This view is perhaps an indication that British drivers expect to be controlled and regulated and prefer this to potential chaos and possible danger.

2.3.4 The AA supports experimentation in a search for more radical traffic management measures that could make our streets less cluttered and more pleasurable to use for by road users. Quite clearly these measures must be carefully tailored to traffic intensity.

*2.4 Intelligent traffic management schemes, such as the scheme which has operated on the M42, and their impact on congestion and journey times.*

2.4.1 The AA has supported the active traffic management scheme on the M42. In an AA Populus survey in August 2008, 50% supported hard shoulder running under controlled conditions (Active Traffic Management, ATM), 29% opposed this (15% opposed strongly) and 17% were neutral.

2.4.2 However, the AA maintains that ATM is not a panacea and is concerned that putting considerable emphasis on this policy may be storing up problems for future generations. We believe that the capacity gain from ATM is quite limited and does not match full widening of a motorway (although it is acknowledged that in a time of austerity this may be a cheaper option). The problem with ATM is that benefits are relatively short lived and as traffic continues to grow widening an ATM motorway will actually be more difficult.

2.4.3 There is no doubt that the ATM scheme on the M42 has been popular with drivers by smoothing traffic flow and improving journey time. However, it has fortunately not been “tested” in severe accident conditions. A further downside of ATM is that it has the potential to urbanise a rural motorway which might actually be left more rural if it were just widened by one lane.

*2.5 The effectiveness of legislative provisions for road management under the New Roads and Street Works Act 1991 and the Traffic Management Act 2004*

2.5.1 The length of time involved in implementing the above legislation has been significant and is very disappointing for road users. They have been subjected for decades to highway works which have often been carried out at the convenience of utility companies and at the expense of the road user. The permit schemes which are now evolving, and even the prospect of lane rental schemes in places, are both very welcome and overdue.

2.5.2 The AA remains concerned that disruption caused by works is still unacceptable and fails to consider the economic cost of delayed road user journeys. It seems that we are in an impossible spiral in that the regulated utility companies must keep customers bills down, get huge value for money from their sub-contractors who dig up the roads and must do this whilst trying to minimise disruption to road users and with the prospect of charges on their street activities. It is perhaps not surprising that many are struggling to meet all these objectives and we believe the easiest one to renege on is service to the road user.

*2.6 The impact of bus lanes and other aspects of road layout*

2.6.1 The AA has welcomed the removal of the M4 bus lane which was implemented to “make a point” rather than introduce and encourage new express coach services. It did not succeed as a new breed of public transport scheme or a traffic management measure—in fact it led to longer journey times outside the peak. There are probably many similar less high profile bus lanes like this in authorities throughout the UK. The AA believes bus lane proposals must withstand economic scrutiny in that there must be a high number of passengers carried and buses using the bus lane to justify removal of a traffic lane which is available to all road users. Research by TRL some years ago showed that sometimes buses themselves are delayed by upstream queues created by bus lanes themselves. The AA believes many bus lanes could be converted to car-share lanes and given the high cost of fuel this would encourage more to car share.

*February 2011*

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#### **Written evidence from the Joint Authorities Group (UK) (ETM 42)**

1. The Joint Authorities Group (UK) [JAG(UK)] welcomes the opportunity to provide written evidence on the prevalence and impact of traffic congestion and likely future trends and, in particular, the effectiveness of legislative provisions for road management under the New Roads and Street Works Act 1991 and the Traffic Management Act 2004.

2. JAG(UK) represents all 200+ Street and Road Authorities in Street and Road Works matters relating to the New Roads and Street Works Act: 1991 and the relevant parts of the Traffic Management Act 2004.

3. JAG(UK) is the mechanism through which Street and Road Authorities are represented on the Highway Authorities and Utilities Committee(UK) [HAUC(UK)] which in turn advises the Department for Transport and the Government in Street and Road Works matters.

4. The effectiveness of legislative provisions for road management under the New Roads and Street Works Act 1991 and the Traffic Management Act 2004.

5. JAG(UK) would draw the Committee’s attention to the Halcrow Report: Evaluation of Traffic Management Act 2004 dated 16 August 2010 which was commissioned by the Department for Transport.

6. Representatives from JAG(UK) were interviewed by Halcrow on 18 November 2009 at which JAG(UK)'s basis as to the effectiveness of the legislation provisions for road management under the New Roads and Street Works Act 1991 and the Traffic Management Act 2004 was presented. (A copy of the relevant section is attached—Annex A)

7. This basis follows:

7.1 JAG (UK) believes that the Traffic Management Act (TMA) was borne out of frustration with the inability of stakeholders to embrace the requirements and spirit of the New Roads and Street Works Act (NRSWA). Although the provisions NRSWA were enough to deliver successful management of works in the highway, these were not fully embraced by authorities nor accepted by undertakers.

7.2 The TMA has been introduced to enhance the NRSWA as a mechanism to improve the management of activities on the road.

7.3 Unfortunately, there has been a delay in the implementation of a number of provisions within the TMA and the original NRSWA which would have improved further the management of activities on the road.

7.4 One example of the delay is the updating of the Inspections Code of Practice. The present Code of Practice was introduced prior to the TMA and does not allow for the sample inspection of street works on the highway in respect to overrunning works or permit conditions; permits being introduced in the TMA. Updating of the Code would also introduce more effective procedures with dealing with poor safety measures and defective reinstatements both of which are a major factor in the disruption of the movement of all traffic on the highway.

7.5 Fixed Penalty Noticing (FPN) was also introduced in the TMA. Although the FPN system is of a sound basis and has improved the timeliness and accuracy of information provided to a highway authority to allow him to carry out his coordination duty more effectively, the system is flawed in that non-payment of an FPN cannot be pursued. Where payment has been made, often the cost (and an additional administration fee) is passed onto the undertaker's contractor; this does not encourage the undertaker to take on his responsibilities in respect to complying with the legislation.

7.6 One area that is of concern and that does have a direct bearing on the effectiveness of a Local Traffic Authority to carry out its Network Management Duty is that of the availability of being able to monitor the performance of undertakers in complying with the legislation. Within England, highway authorities use proprietary software to manage their Street Works Register; one of the main tools for the effective management and coordination of works on the highway. The proprietary software is supplied by a number of software houses and, due to inconsistencies and short comings in the legislation, this has led to a number of compatibility problems that the software houses are not willing to address without further clarification of the legislation. This is leading to frustration amongst highway authorities as they are not able to collect full and meaningful data as to the performance of the legislation on their respective highway networks. One solution to this would be a central/regional street works register; a central register in Scotland has shown that accurate performance data can be collected and used successfully.

7.7 However, JAG(UK) does support the permit legislation introduced in the TMA. In the areas where this legislation has been introduced it has been found to be very effective in improving the behaviour of both undertakers and other bodies working on the highway in complying with legislation with the resulting increased effective management of a permit authority's highway network.

7.8 Permit schemes are only operating presently in three areas in England with another four or five areas either considering a scheme or are in the process of introducing a scheme. The legislation is presently very onerous for highway authorities to prepare schemes in both time and cost and this is one of the main reasons that there are so few schemes in operation at present. This is disappointing as permit legislation is seen as being the ultimate tool in improving the effectiveness of road management.

8. As noted previously, evidential data, that would support the above, is difficult to obtain due to the differing street works management systems and the inability to fully manage the system developers output. JAG(UK) is currently working with the Department for Transport to try and redress this by bringing in a standardised reporting process and performance monitoring regime. Notwithstanding this, specific evidence can be gathered from highway authorities on an individual basis.

9. In respect to the legislation, two sections of the NRSWA that have not been enacted are those of s73A—E (introduced in the TMA) and s78.

10. S73A—E relates to contributions by undertakers to the costs of re-surfacing a road and s78 to the contributions by the undertaker to costs of making good long term damage.

11. It is the latter section that is of major concern and JAG(UK) would draw the Committee's attention to the Transport Research Laboratory's Published Project Report PPR386: A Charge Structure for Trenching in the Highway dated March 2009 which was commissioned jointly by Transport for London and County Surveyors' Society. (Copy attached for information.)

12. This report shows the impact of premature deterioration of highways as a result of utility trenching and the action by highway authorities in undertaking additional maintenance. This in turn has a detrimental affect on local authority budgets and increases levels of cost and inconvenience to the public and in particular the road user.

13. The provision in s78 of the NRSWA allows for the Secretary of State to make regulations requiring undertakers executing street works to contribute to the costs incurred or likely to be incurred by a street authority. As this section has never been enacted, highway authorities are having to return to rectify deteriorating roads on a more regular basis, due to insufficient funding, thus adding to further disruption to the highway user and added pressure on the public purse.

14. In conclusion, it is frustrating that it is difficult to get consistent evidential data that will be able to monitor the effectiveness of street works legislation in respect to road management. It is hoped that the present work by highway authorities and undertakers, with the assistance of the Department for Transport, will be able to provide system changes that will be able to show the actual effect that the legislative provisions have on road management.

## APPENDIX A

### EXTRACT FROM HALCROW REPORT: EVALUATION OF TRAFFIC MANAGEMENT ACT 2004 DATED 16 AUGUST 2010

#### 6.1 CONSULTATION WITH JOINT AUTHORITIES GROUP (UK)

JAG (UK)'s belief is that the TMA was borne out of frustration because of the inability of stakeholders to embrace the requirements and spirit of the NRSWA. It considers the provisions of NRSWA were enough to deliver successful management of works in the highway but these were not fully embraced by authorities nor accepted by undertakers.

JAG (UK) hoped, and has promoted the TMA as a vehicle for driving improvement in managing activities on the network. However, five years down the line frustration exists at the protracted legislative programme and the delay in implementing provisions. An example of this would be the new Inspections code of practice. JAG (UK) finds frustration in the part the Department plays in the working group and the delay in turning the group's aspirations into draft regulations; a fundamental stumbling block in progress. There has been a lack of continuity in the Department resources resulting in repeated learning curves thus delaying progress and, as a consequence, allowing changes in political direction to water down parts of the proposed code.

JAG (UK) is frustrated that the legislation has failed to deliver the aspiration that the undertaker should be responsible for its activities. The FPN system is seen as being flawed in that non-payment of an FPN cannot be pursued and where payment is made then undertakers are simply passing the cost through to the contractor and, potentially, profiting by attaching administrative costs. This is viewed as a perverse behaviour and an example of where the legislation has failed to compel the undertaker to "get it right".

JAG (UK) would like to see a more joined up approach across government departments to the development of legislation that would help align the conflicting requirements of network management and street works control requirements with the regulation of undertakers.

JAG (UK) does not believe stakeholders have invested enough in staff, systems and training to deliver the core aims of the NRSWA. It also feels that undertakers invest to avoid rather than embrace the requirements. The almost inevitable squeeze on local authority budgets may result in even less resource for the management of street works that could well further exacerbate the problems. Consequently everything works on compromise. An example is the working groups established to develop codes of practice. Membership is made up of authority and undertaker representatives with diverse aspirations. Inevitably this leads to the compromise with neither side being truly satisfied with the outcome.

A specific example of the legislation not supporting the aspiration is in the area of first pass reinstatements. The Horne report recommended first pass reinstatements as a fundamental requirement of legislation. However NRSWA does not mandate this, but merely supports it providing the undertakers the opportunity to temporarily reinstate, which does not help with maintaining the integrity of the pavement or reducing unnecessary disruption.

JAG (UK) is supportive of permit schemes and believes it is this legislation that will be most effective in driving improved behaviour from undertakers. However it believes there could be many more schemes in operation if there was a greater interest and priority on TMA issues at a national level and if the process for applying for a permit scheme was simplified.

JAG (UK) constantly referenced the delay in the programme of secondary legislation as a barrier to progress and cited the retraction of resource by the Department as a major contributor. This delay is resulting in the TMA becoming an incomplete jigsaw with momentum being lost. Ultimately, JAG (UK) has the impression that there is a lack of commitment from the Department which is holding back real progress.

JAG (UK) provided comment on the individual NRSWA provisions of the TMA that have been commenced, although an over-arching concern was that government is not joined up in respect to the drivers in the TMA

and NRSWA that focus on the better management of the network and those that work on it conflict with the drivers the undertakers face from their regulators. It does not believe self-regulation will work as there are too many undertakers operating in the arena. It believes the commercial responsibility these companies have to their shareholders will always outweigh the desire to pay charges that would be voluntary if covered by self regulation.

With regards to the individual provisions, JAG (UK) commented as follows:

*Increased fines*

These provided for an initial focussing of minds by undertakers but the fact they can be passed on to the contractor provides for little, or no accountability from the undertaker. Here is also a disincentive to the authority to prosecute because the cost is prohibitive and any successful prosecution sees the fine go to HM Treasury rather than being reinvested in the authority.

*Section 54 & 55*

The ability to cancel or postpone works is seen as positive in respect to the administration of noticing systems, but it has had no effect on works planning practices. The practice of multiple works noticing continues and authorities are still left wondering where undertakers may be on the network on a day to day basis. It is believed the EToN Technical Specification does not deliver what the regulations and coordination code of practice intended in this respect.

*Section 56 clarification*

This is believed to have been a suitable clarification of the definition but JAG (UK) accepted the power is rarely used in a formal way because of informal dialogue and agreements that occur between authorities and undertakers on a day to day basis. It did again refer to the ongoing issues authorities face with noticing practice, citing weekend working as a big issue. It is felt that in modern times, where companies operate on a seven day working week, that the NRSWA definition of the working day should be amended to reflect the same.

*Section 56 (1)A*

This is believed to be an important power but JAG (UK) again accepts it is rarely used. This power now provides an opportunity to clear diversion routes of works if an incident occurs on an adjacent route, something that can happen in relation to incidents on motorways and trunk roads, although highlighted that the timescales proposed by the Highways Agency in such instances are not always feasible.

*Section 56 (A)*

It was accepted that this power was very rarely used as there are few major infrastructure schemes undertaken and often this requirement is addressed in planning conditions.

*Section 58*

Authorities use the section 58 powers widely and consider the concept a good one. However the power is considered to be ineffective due to the many exemptions that exist. One improvement that is thought would be of benefit would be to include the ability to dictate the extent of reinstatement or tie it into the resurfacing regulations when they are developed.

*Section 58 (A)*

This power has not been used to any great extent, although JAG (UK) considers this a powerful option. However, JAG (UK) observed that there are currently few major infrastructure projects being undertaken. It was cited that if there was the potential for the authority to resurface during the potential embargo period then it is unlikely this power would be used.

*Section 59*

JAG (UK) noted this widening of the definition of relevant activities and suggested authorities vary the activities registered in accordance with their own requirements. Skips, scaffolds and building materials were mentioned specifically, and it was felt that the legislation allowing FPNs for such activities has continued to be deferred due to other issues being made a priority. However, an example was cited where an authority has implemented a scheme for skip and scaffold overstay charges that achieves the same result without the legislative support and it was suggested that commencing the legislation could have a detrimental effect on such initiatives.

*Section 70*

This provision is seen simply as a formalisation of general practice. JAG (UK) cited examples where LTAs have seen an improvement in the receipt of such information it was deemed that the impact, in general, has been neutral.

*Section 95(A)*

JAG (UK) cited the introduction of FPNs as a key provision to address the lack of response to NRSWA and also as one of the provisions which has had the greatest impact.

JAG (UK) believes FPNs have, in general, had a positive impact. However, the fact that FPNs are not a debt that can be pursued, leaving prosecution as the only recourse for an authority is seen as a limitation. This has often deterred an authority in giving FPNs, particularly where they consider that Magistrates would see the issue as trivial. JAG (UK) consider that powers would be improved if the fine was a penalty

charge notice, that is the offence was decriminalised in a similar way to those offences covered in Part 6 of the TMA.

JAG (UK) also cited the inconsistency between the levels of penalty undertaker's face for similar offences. The example given was a comparison with section 74 charges. When an undertaker overruns works it can be charged up to £2,500 per day. However if the same undertaker begins works without a notice, or starts before the notified start date it will only receive a £120 (or £80 if paid early) FPN. However, the disruption caused is the same. JAG (UK) does not think this is right and does not drive the right behaviour.

It is believed that FPNs have resulted in an improvement in the timeliness of notices. However, JAG (UK) questioned what is considered acceptable JAG (UK) believes that the target should be 100% accuracy as this is what legislation requires, however it believes the industry regulators accept 95% accuracy or, to put another way, the regulators accept a 5% failure by undertakers: this could be seen as condoning undertakers to commit NRSWA offences. JAG (UK) highlighted that whilst there was initially a surge in the improvement of noticing as a response to FPN schemes, this has levelled off. It was noted that authorities are restricted by a lack of resource to drive further improvements in performance.

JAG (UK) is sceptical about whether the provisions have been implemented robustly and that the reason is the lack of perceived benefit to authorities or the travelling public. There is also a perception that a link to performance management needs including in regulations. JAG (UK) believes this is an area where more consistency between government departments. An example provided by JAG (UK) is in relation to inspections.

JAG (UK) cited that, with regards to parity, the legislation as it stands is not driving the right change (eg no requirement to notice local authority works). The requirement to place information on the register is too woolly and is open to interpretation; the industry understands the sentiment but needs positive wording to help drive the process forward.

Halcrow/TRL commented on the poor response from sample authorities to the request for management information from the systems. The information requested was considered to be normal management information that any authority would need to undertake effective management and coordination. It was expected that such information would be available at "the press of a button". This proved not to be the case and JAG (UK)'s view was sought.

JAG (UK) confirmed its frustration with systems and the difficulty in acquiring robust or standardised management information. This was highlighted by a JAG (UK) exercise to collate performance data in relation to Section 74, whereby the lack of standard reporting between authorities led to difficulties. Requirements for variations to existing reports can lead to charges from system developers. JAG (UK) believes the system suppliers (EDG) have had too much of an influence. The systems and EToN Technical Specification should supply what the regulations and community require to facilitate effective network management, but the perception is that suppliers are able to dictate policy based on their priorities for software delivery. For example, assumptions that were made when the EToN Technical Specification was written have led to amendments to the codes of practice. JAG (UK) considers this to be back to front. JAG (UK) highlighted the issues surrounding the development of the EToN Technical Specification and street works systems as a fundamental problem since authorities rely on this information to manage their network.

Steps must be taken to get stakeholders to embrace the legislation and drive system suppliers to deliver the solutions. One solution would be the development of a central street works register. It is accepted this was tried and discounted in the late 1990s; however, this was a fundamental recommendation of the Horne report and has proven to be successful in Scotland.

JAG (UK) considers performance management is resource constricted and would encourage the Department to deal directly with the funding issue or take steps to protect funding streams.

JAG (UK) accepts that, whilst individual authorities do measure performance collectively there is some work to do. However, they referred back to the issue with data quality resulting from the systems and the different interpretation taken by different suppliers. It is essential that the system suppliers are engaged to provide the solutions to meet the needs of the community rather than being able to influence policy.

JAG (UK) has been influential in the development of the HAUC (UK) advice note on performance management. However, concern was expressed that since publication certain parties are undermining the philosophy of authorities identifying what is important to them (in consultation with stakeholders) that is promoted by the advice note in favour of developing a set of national indicators.

JAG (UK) also commented on the difficulty authorities face when dealing with the Highways Agency. The Highways Agency will not register its own works and, whilst authorities are only obliged to place data on the register, it is felt the Highways Agency should consider the advantages it would have if it were to do so. The strategic road networks are the busiest roads that pass through many authorities and the impact of works and incidents and subsequent diversion onto an authority's highway network can have an immense effect in increasing disruption.

JAG (UK) suggest that there is a need to undertake a review of all legislation to ensure consistency between control and regulatory. There is also a need to bring forward legislation to deal with long term damage. This is seen as a top priority for JAG (UK) which will assist both local and national government in funding issues.

JAG (UK) stated that the public purse is picking up a too higher proportion of the costs and a balance needs to be found. Placing more costs into the private sector increases customer choice.

Specifically, JAG (UK) mentioned the following as aspirations they have for improvement:

- Development of legislation to enable authorities to proactively manage active works (100% category A inspections).
- Simplification of the requirements for Permit Scheme applications.
- Introduction of a different process for the development of Codes of Practice. The current working group process only aids the compromise solution.
- Preparation of a structured business plan including a robust business case that has the buy in of all stakeholders—the Department/local authorities/undertakers, with an agreed timeline which is adhered to by all.
- Consideration of a central street works register.

February 2011

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### Written evidence from CTC, the national cyclists' organisation (ETM 43)

#### INTRODUCTION

1. CTC, the national cyclists' organisation, was founded in 1878. CTC has 70,000 members and supporters, provides a range of information and legal services to cyclists, organises cycling events, and represents the interests of cyclists and cycling on issues of public policy.

2. CTC believes that cycling is a powerful, but currently greatly underused alternative to private car use for a wide range of journeys, particularly in urban areas. In part cycling is little used because current road and traffic management policies have been ineffective, allowing private car use to grow unimpeded for decades. This has created powerful disincentives to cycle, in particular due to fear of injury when using the road network.

#### *The prevalence and impact of traffic congestion and likely future trends*

3. Journey time reliability is now the preferred means of measuring a successful transport system and congestion is the main means by which journey time reliability declines. However, for cyclists, even in heavily congested inner London, Transport for London has found that journey time reliability is extremely good, with exceptionally consistent journey times recorded over a range of journeys.<sup>71</sup>

4. Cycling can also contribute significantly to reduced congestion. It is the most efficient way to use a single carriageway lane—14,000 cycles per hour can pass compared with just 2,000 cars.<sup>72</sup> Use of cycles is also a much more efficient use of other public spaces—eight cycles can be parked in the space required for one car.<sup>73</sup>

#### *The extent to which the government and local authorities should intervene to alleviate congestion and the best means of doing so*

5. Congestion is not the only economic cost that results from the failure of transport policy over the past 50 years. The Department for Transport/Cabinet Office concluded in 2009 that in urban areas (where virtually all congestion occurs) the economic cost due to congestion represents just 22–29% of the total, with the damage to public health from crashes, poor air quality and physical inactivity likely to be around three times greater than the economic damage from congestion alone.<sup>74</sup>

6. With that in mind, CTC suggests that the biggest priority should not be the alleviation of congestion, but the improvement of public health. To achieve that requires not the reduction of congestion, but the reduction of motor traffic volume and speed, the combination of which has created the polluted and unsafe environment in our cities contributing to a physically inactive, unhealthy and injured population. The reduction in motor traffic volume and speed will of course have the ancillary benefit of reducing congestion—but this should not be the sole objective.

7. Traffic volume reduction can be achieved by measures to reduce demand for travel, such as travel planning, congestion charging and workplace parking levies, whilst at the same time reducing the supply of infrastructure to support car use, through designing out car parking and reallocating road space away from private motor transport to public transport, walking and cycling. Examples of the latter include bus lanes, vehicle restricted areas, cycle lanes and advanced stop lines whilst systematically reducing on and off street parking.

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<sup>71</sup> Transport for London Road Network Performance & Research, *Traffic Note 11: Cycle journey time reliability*. 2009

<sup>72</sup> Botma & Papendrecht, *Traffic operation of bicycle traffic*. TU-Delft. 1991.

<sup>73</sup> Lee, A. March, A. Recognising the economic role of bikes: sharing parking in Lygon Street, Carlton, *Australian Planner*. 47(2). 2010. 85–93.

<sup>74</sup> DfT, *The Future of Urban Transport*. 2009



*The extent to which road user culture and behaviour undermines effective traffic management, including the relevance to today's road users of the Highway Code*

8. CTC is currently gathering evidence of poor road user behaviour through our “Stop Smidsy” campaign (SMIDSY standing for “sorry, mate, I didn’t see you”—the perennial excuse of inattentive drivers). We are aware of a very high level of abuse of cyclists by motor vehicle users, ranging from inappropriate speeds and overtaking distance up to verbal and physical assault, usually carried out by passengers in cars. 74% agree with the statement that “the idea of cycling on busy roads frightens me”.<sup>75</sup>

9. The antipathy of a certain minority of drivers towards cyclists is, we believe, one of the reasons why confidence in cycling has declined amongst the general population.

10. Despite many attempts by local authorities and other organisations to persuade people to take up cycling, participation rates have only increased very slightly, with 42% of the population saying they cycle, up from 39% ten years ago, while trip numbers per person have remained constant. Over the last eight years the proportion of those cyclists “mainly using the road” has fallen from 46% to 37%, while those reporting that they mainly ride on off-road routes has increased from 39% to 52%.<sup>76</sup> This represents a failure of government policy towards sustainable travel due to increasingly hostile cycling conditions on our roads.

11. Accommodating cyclists in general traffic lanes requires specific measures to ensure safety and cooperation between road user types. For instance, the use of traffic detecting signals requires equipment to be sensitive enough to detect cycles, while phasing of lights must allow safe passage of slower moving cycles through a junction. If traffic management techniques fail to provide cyclists with a safe and adequate road environment, some cyclists may be tempted to disregard the regulations.

12. 20 mph speed limits and zones create conditions more favourable to equitable sharing of the road. Their use on residential and community streets is recommended in recent Government guidance and supported by 75% of all respondents to one survey.<sup>77</sup> A growing body of local authorities appear to accept the need to shift to lower speeds, however many remain unconvinced that 20 mph speeds will be achieved without extensive physical traffic calming, the expense and unpopularity of which blocks this initiative. The supine nature of traffic law enforcement, coupled with a wilful abuse of speed limits has created a situation whereby half of all cars are still recorded as breaking the 30 mph speed limit—thereby creating a hostile and lawless feeling for vulnerable users of British roads.<sup>78</sup>

*The effectiveness of legislative provisions for road management under the New Roads and Street Works Act 1991 and the Traffic Management Act 2004*

13. The New Roads and Street Works Act 1991 and subsequent initiatives have been motivated by a desire to reopen roads as fast as possible. Whilst laudable, this should not be pursued at the expense of ensuring that roads are neglected or reinstated below standard. Hasty, botched repairs of road hazards that rapidly reappear are commonplace and pose a particular problem for cyclists—around one in ten of the legal claims settled by CTC for its members occur as a result of road defects.

14. The failure of the Department for Transport to implement various aspects of the Traffic Management Act 2004 has meant that an opportunity to increase cyclists’ safety and the comfort and benefits of cycling has been lost. Whereas the sections of the Act to decriminalise most moving traffic offences have been brought into force, those concerning driving and—even more seriously parking—in cycle lanes have not been. This means that police are still required to enforce mandatory cycle lanes, a duty they are reluctant to perform attentively in the many areas where they have no parking responsibilities.

15. Road maintenance doesn’t just concern the disruption to the road network—road works badly damage the road surface leading to faster deterioration, of often requiring remedial repair. According to the Asphalt Industry Alliance’s ALARM road condition survey: “20% of reinstatements [were] found to be [of] unacceptable quality. Remedying inadequate work consumes on average 13% of the road maintenance budget.”<sup>79</sup>

*The impact of bus lanes and other aspects of road layout*

16. Bus lanes have proved a highly significant factor in reducing capacity for motor traffic, thereby locking in the benefits of other measures to restrain traffic demand. In order to provide a good quality facility for cycles, bus lanes must be at least 4.2 metres in width, to minimise conflict between buses and cyclists.

17. Cycle-specific facilities can offer an improved experience, however, where used they must be of sufficiently high quality design (and maintenance) to ensure that the level of service to cyclists in terms of journey time is equal to or better than on-road alternatives. In any case, many cyclists will continue to use the road and adequate provision must always be made to allow cycle use of the road can be maintained.

<sup>75</sup> DfT, *Cycling Personal Travel Factsheet*. 2007

<sup>76</sup> DfT, *National Travel Survey*. 2009. Tables 3.13, 3.15

<sup>77</sup> National Centre for Social Research. *British Social Attitudes: the 22nd Report*. 2005

<sup>78</sup> DfT, *Road Statistics 2009: Traffic, Speeds and Congestion*. 2010

<sup>79</sup> Asphalt Industry Alliance, *ALARM Survey*. 2010. p 12

18. Cycle lanes are generally less effective at reducing capacity for motor traffic than bus lanes. Indeed, part of CTC's reluctance to fully embrace the use of cycle lanes exists because lanes are seldom accompanied with policies to restrict parking and minimise traffic volumes. Where used, cycle lanes are often implemented as an afterthought, fitted in without regard to maximising comfort and safety for cyclists. Although guidance recommends a width of 1.5 metres, preferably two metres, only a tiny fraction of cycle lanes reach this standard, with many falling far below.<sup>80</sup>

19. Many cycle facilities, be they off or on road, suffer problems at junctions. Facilities such as off-road paths or advanced stop lines may lead cyclists into a position which is both objectively and subjectively unsafe, especially at junctions. Often these circumstances are accompanied with unrealistic expectations that cyclists will yield to traffic, for instance where cycle paths intersect with minor side roads. It is this presumption of priority given to motorised traffic which CTC feels presents the greatest barrier to providing high quality facilities for cyclists. An statement in guidance and law that cyclists (as with pedestrians) be given priority at cycle track crossings of side roads would greatly decrease latent opposition to these facilities.

20. Build-outs and pedestrian refuges in the carriageway can also create pinch-points, narrowing the available carriageway width to a point at which drivers and cyclists cannot safely interact. The use of such facilities can create conflict between road users and contributes to the feelings of hostility which acts as a barrier to cycling for so much of the population.

#### EXAMPLES OF SUCCESSFUL LOCAL TRAFFIC MANAGEMENT

21. CTC is aware of several excellent examples of local traffic management that has successfully reduced motor traffic use—an objective we believe highway authorities should be aiming to achieve.

#### LONDON'S CONGESTION CHARGE

22. By far and away the most successful traffic management scheme in recent years has been London's Congestion Charge, the implementation which has been accompanied by huge changes in traffic, including massive increase in both public transport and cycle use, with the numbers of people cycling into central London in the morning peak more than doubling since 2003, with an annual average increase of 15%. Over the same time 15,000 fewer people have driven into central London and 15,000 more have cycled.<sup>81</sup>

#### VEHICLE RESTRICTION IN CAMBRIDGE

23. Despite huge developments on the city outskirts and intense pressure on space, Cambridge has successfully restricted motor traffic growth in the city centre, allowing a very high level of cycling to be maintained. Cambridge meets and even exceeds levels of commuter cycling common to much of the rest of northern Europe, with 26% of residents cycling to work at the time of the 2001 Census. Individual areas in Cambridge see a third of their employees or students cycling to work or employment.

24. This achievement has been achieved principally adopted has been to restrict access and deter motor traffic as much as possible, whilst maintaining access for cyclists and buses. In some cases this has been achieved with point closures, rising bollards, turning restrictions and contraflow cycle routes. All of these traffic management techniques are effective if they exempt pedal cyclists.

25. Cambridge has only quite recently allowed cycles back into the previously fully pedestrianised town centre. This has further improved network accessibility for cyclists, enabling a traffic free and direct alternative.

#### FILTERED PERMEABILITY

26. Restricting private motor vehicle access and giving priority to buses, cycles and pedestrians increases the attractiveness of these modes. One of the means to achieving this is by town centre vehicle restrictions such as those mentioned above. Another step is the design of residential streets to provide pedestrian and cycle access but restrict through movement of vehicles. These streets are then subjected to less noise and perceived risk, but if well designed can remain busy through levels of cycling.

27. The London Borough of Hackney has pursued the latter approach, gradually creating a residential road network which is fully permeable to cyclists but restricts motor vehicle use. This has involved opening up previously closed streets with short sections of cycle track.<sup>82</sup>

28. In Copenhagen, on one of the major cycling routes leading north from the city centre—famously with peak flows of over 35,000 cyclists per day—private car access is now restricted for a section of the route, with cycle and bus access maintained. In addition, the street features a "Green Wave", allowing cyclists travelling at around 12 mph to ride all the way along the street without ever meeting a red signal. Cycle traffic increased by 15%, car traffic fell by up to 80% and bus journey times improved.<sup>83</sup>

<sup>80</sup> DfT. *Cycle Infrastructure Design*, LTN 2/08. 2008

<sup>81</sup> Transport for London, *Travel in London Report No. 3*. 2010.

<sup>82</sup> Cycling England, *Scheme of the Month—Restoring Permeability for Cyclists, Hackney*. November 2007

<sup>83</sup> European Local Transport Information Service, *Revitalisation of Norrebrogade—one of Copenhagen's most important thoroughfares*. 2010

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 BARRIERS TO IMPLEMENTING SUCCESSFUL LOCAL TRAFFIC MANAGEMENT

29. Ensuring permeability for cyclists can also be achieved by permitting contraflow access to one-way streets, particularly on quiet back streets. Elsewhere in Europe it is very simple to modify existing “no entry” signs to permit contraflow cycling with a minimum of changes to road layout. It is considered entirely safe. In this country, however, the use of a cycle exemption with a “no entry” sign is not permitted. Alternative solutions which allow cycle contraflow access either require expensive engineering or confusing sign changes. As a result many one-way streets persist where contraflow cycle access could be made with little difficulty or problem.

February 2011

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**Written evidence from the Freight Transport Association (FTA) (ETM 47)**

The Freight Transport Association is one of Britain’s largest trade associations, and uniquely provides a voice for the entirety of the UK’s logistics sector. Its role, on behalf of over 14,000 members, is to enhance the safety, efficiency and sustainability of freight movement across the supply chain, regardless of transport mode. FTA members operate over 200,000 goods vehicles—almost half the UK fleet—and some 1,000,000 liveried vans. In addition, they consign over 90% of the freight moved by rail and over 70% of sea and air freight. FTA works with its members to influence transport policy and decisions taken at local, national and European level to ensure they recognise the needs of industry’s supply chains.

**BACKGROUND**

The freight industry is heavily reliant on the transport infrastructure that it uses performing to a consistently high standard. Distribution networks, delivery routes and schedules have been designed to achieve availability of sufficient goods at the point of consumption by business or consumers without the need for extensive and expensive stock holding. Operators build resilience into their operational planning to accommodate regularly encountered journey time unreliability in network performance.

In response to the Transport Select Committees inquiry into effective road and traffic management, the Freight Transport Association would like to offer the following evidence.

*1. The extent to which the Government and local authorities should intervene to alleviate congestion and the best means of doing so*

Freight transport operators as road users; expect reliable journeys in return for the duties paid in taxation and other charges that are made for use of the UK’s road space. The UK road freight industry estimates it pays £8 billion taxation per annum in the form of vehicle excise duty and fuel duty. It is only right and proper that having paid such massive amounts they are provided with a road infrastructure which is reliable and that provision must be from government, their agencies and local highway authorities. Without reliable journeys industry cannot count on getting their goods to the market place and inevitably this does have an effect on UK efficiency and the cost of goods to the customers. Delays in journeys are a significant cost to the freight industry and it is estimated that the cost of delay in fuel alone is over £2 per hour per vehicle. In addition to fuel costs, whole vehicle costs have to be taken into account which dependent on the size of the vehicle can range from £200–£400 per vehicle per day.

FTA members expect Government to play its role in delivering a high quality network of roads and implementing measures that reduce congestion and thereby improve reliability. Road safety is also linked with reliability and therefore road provision must ensure that it is safe to travel on by design and operation. It is with this in mind that we argue that it is government and local authorities that are the ones that can influence journey reliability with the provision of reliable, safe and sustainable roads.

Once we have the right infrastructure there is a need to ensure that the road users are kept informed of the conditions of the network so that they can make informed decisions on how and when to travel. The Highways Agency has for some years now been providing the travelling public with information about the performance of its network in making information freely available at the point of use. The value of the information must not be underestimated and in the freight industry there is now awareness that informed journey planning does make a difference to efficiency of road freight fleets and therefore has a direct effect on the UK economy.

There are however gaps in the provision of reliable and verified information of the Highways Agency Network in England and a particular lack of freely available information around local authority roads in the city region areas where congestion can be in the main predictable, however when it happens outside of the peaks travel hours, it can create significant problems for the traveller.

FTA believes that organisations such as Integrate Transport Authorities and local traffic managers would find benefit in establishing information flows on significant travel delays in their areas of responsibility. It would not only help the travelling public but would also help the management of incidents, in persuading road users to stay away from significant road delays. To an extent this is currently provided in road messages transmitted by local radio stations but the freight industry has a need to have information on a wider basis than just a local radio station transmissions.

The European Directive on the deployment of Intelligent Transport Systems encourage this type of information exchange but to make it worthwhile it must be deployed on a consistent way across the whole of the network. Most road users are not concerned about who manages which part of the network and in most cases don't understand the differing responsibilities of the Highways Agency and local highway authorities; neither would they recognise that there are differing sources of traffic information.

*2. The extent to which road user culture and behaviour undermines effective traffic management, including the relevance to today's road users of the Highway Code*

Road users themselves can only look to see if a road journey is likely to be reliable (usually at the start of the journey) they cannot ensure that road conditions continue to be reliable as they travel.

Road users can prepare for journeys and there are some roads users who fail to do so. It is in this area that we believe there is room to change road user's behaviour to improve traffic management. The freight industry generally looks to see that it prepares the driver and vehicle, ensures that there is an understanding of vehicle equipment and controls that the road conditions are understood both by the driver and their companies and that driver's are prepared for incidents and severe conditions. FTA member's road freight operators generally look to identify the areas where improvements would be most effective in the control of driving risk, reduction of stress and fatigue. We believe that adopting better public attitudes towards safe driving will bring about a lasting improvement to road safety and also by default help to improve journey reliability.

The Association believes that in certain areas there is a lack of appreciation of and compliance with the rules of the road, which leads us to believe that the Highway Code in road user's minds has no relevance once they have passed their driving test. Many of the industries driver trainers have made the assumption that most road users have forgotten the majority of the rules of the road and the industry generally recognises the need for defensive driver training.

The issue of post test driver training is an area which is largely ignored by many motorists and we appreciate the difficulty of taking the issue forward but a fundamental point is that we need to remind the public about the reasoning behind the Highway Code and ensure through bookshops and other outlets what the latest version is and the rules that it contains.

We also believe that there is a need for better information on how to share the road safely with other road users including larger vehicles. There is provision of some information within the current version of the Highway Code but this is fragmented and we have argued for some years that there would be advantage in a dedicated section with the Highway Code on how to share the road safely particularly with larger vehicles.

*3. Intelligent traffic management schemes, such as the M42, and their impact on congestion and journey times*

While the initial view about the M42 pilot was suspicion about the real value that such a management system would produce, the freight industry now feels that it has proved to be an important milestone in driver control and behaviour thus providing benefits in journey reliability and safety.

The benefits of speed control and information while in the controlled areas that include hard shoulder running, encourage drivers to comply with instructions and in doing so they benefit in known journey times.

The initial safety concerns, expressed by many of our members, seem to be less so now with drivers and vehicle operators more aware of the significant control measures that are used by the regional control centres to identify incidents with the managed scheme areas and importantly deal with those incidents so that the motorists remain safe. There seems to be support on the control speed issue in other areas, where our members have reported improved journey reliability through major roadworks.

Traffic management schemes seem to improve journey times reliability and this is a fundamental benefit to freight operators. We do believe that other areas of motorway similar to the M42 pilot area will benefit from this type of infrastructure improvement. However we remain to be convinced that it is the solution for other parts of the network that do not have the same road characteristics and we believe there is still a case for full widening in areas that suffer from congestion but are on more strategy parts of the network such as the M6 north of Birmingham.

#### CLEARING INCIDENTS

One additional area of concern to our members is the length of time it takes to clear incidents particularly on the Strategic Road Network where delays of several hours are experienced when an incident occurs. It seems to us that even with high levels of traffic management when an incident does occur and involves casualties or other criminality where the police have to step in and deal with the incident we still get these very length delays which trap motorist in there vehicles for hours on end. While we sympathise that the police have a very difficult job to do and have to ensure that they have gathered all of the evidence that they need

from the scene we believe that there needs to be a fundamental review of procedures used at such incidents to see how the incidents can be cleared quickly to get the road reopened and get the road users on their way.

March 2011

### Written evidence from Living Streets (ETM 48)

#### SUMMARY

- Living Streets considers that effective road and traffic management has an important role to play in creating safe, attractive and enjoyable streets where people want to walk.
- Effective governmental intervention is crucial in alleviating congestion and the key long-term solutions are modal shift towards active transport (and public transport) by making active modes more attractive, and the effective integration of transport planning with spatial planning to set a norm of compact, mixed-use and walking-friendly neighbourhoods.
- Living Streets believes that 20 mph speed limits where people live, work and play have a role to play in improving traffic flow and road safety, as well as in delivering wider sociability and environmental benefits. Governments and local authorities have a clear role to play in making lower speed limits easier to implement.
- Living Streets considers that pedestrians are part of the traffic, not separate to the traffic, and that this understanding should be adopted when considering any traffic management measures in order to give a more realistic view of the potential effects on all road users.
- The highway code is a crucial document; however, certain aspects of antisocial behaviour which undermine effective traffic management, including pavement parking and pavement cycling should be addressed.
- The issue of liability for collisions should be prominently addressed at the national level.
- While intelligent traffic management systems have a role to play, they should also cater to the needs of pedestrians, particularly the more vulnerable.
- Roads and streets should be designed holistically with the people who use them in mind, rather than solely as vehicular traffic corridors, and integrated with other modes of transport and longer term behavioural change and mode shift endeavours. Innovative design approaches such as shared space have a part to play in improving the ways in which road users perceive and interact with the street environment and with other road users.

#### 1. ABOUT LIVING STREETS

1.1 Living Streets is the national charity that stands up for pedestrians. With our supporters we work to create safe, attractive and enjoyable streets, where people want to walk. We work with professionals and politicians to make sure every community can enjoy vibrant streets and public spaces.

1.2 The history of Living Streets demonstrates the strength of our agenda. We were formed in 1929, as the Pedestrians Association, and have grown to include a network of 100 branches and affiliated groups, 28 local authority members and a growing number of corporate supporters. As well as working to influence policy on a national and local level, we also carry out a range of practical work to train professionals in good street design, and enable local communities to improve their own neighbourhoods. We run high profile national campaigns such as Walk to School and Walk to Work Week, to encourage people to increase their walking levels and realise a vision of vibrant, living streets across the UK.

#### 2. IMPACTS OF TRAFFIC MANAGEMENT ON QUALITY OF LIFE AND SOCIAL OUTCOMES

2.1 The quality of our streets plays a significant role in how people use their streets and local areas, and heavily trafficked and congested streets have a markedly negative effect on a community's quality of life. Aside from the disincentive to physical activity, people living in streets with high car traffic where walking was not the norm were found, in a recent study, to have 75% fewer local friends than those in streets with low car traffic.<sup>1</sup> Additional car journeys and increased congestion also leads to the generation of more air pollution<sup>2</sup>—already a major issue for urban health and quality of life according to half of Manchester residents and 77% of Londoners.<sup>3</sup> There is a clear role for Government and local authorities to intervene in this area.

2.2 Living Streets considers that effective road and traffic management has an important role to play in creating safe, attractive and enjoyable streets where people want to walk. For example, the setting of lower speed limits can be part of a congestion management solution, with speed limit reductions to speeds as low as 40mph being used as part of variable speed controlled motorway schemes. Similar principles are being applied successfully in more built-up areas. Living Streets campaigns, alongside many others, for a default speed limit of 20 miles per hour where people live, work and play. Well-implemented 20mph speed limits can improve road traffic flow, using road space more efficiently by reducing the safe stopping distance that vehicles require and allowing more pedestrians to cross the road informally, reducing delays from signalized crossings. Walworth Road in the London Borough of Southwark, one of the Department for Transport's Mixed Priority

Route pilots, has been a widely-praised example of a scheme which improved the urban environment for all users and reduced the number of road casualties with no detrimental effect on traffic flow, whilst Transport for London and the London Borough of Camden's have trialled a pilot "green wave" system, which coordinates signalized junction timings with 20mph limits. 72% of British drivers would support 20mph limits on residential streets.<sup>4</sup>

2.3 The key benefit of 20mph speed limits is in road safety: a recent longitudinal study found that 20mph areas experienced a reduction in casualties of over 40%, as well as a reduction in the severity of those casualties.<sup>5</sup> Stronger national guidance making it easier for local authorities to implement area-wide 20mph speed limits (rather than just the more expensive 20mph "zones") on their full range of roads would be helpful in empowering communities to improve local road safety. With the average road traffic collision carrying an estimated cost of £75,000—and a fatal incident costed by the Department for Transport at nearly £2 million<sup>6</sup>—the direct economic value of pragmatic, high-quality people-focused design, combined with the potential to safeguard human life and improve quality of life and perceptions of safety, is undeniable.

2.4 20mph speed limits can also contribute to broader social, environmental and health-related goals.<sup>7</sup> Traffic management should not be viewed in a silo, but with explicit reference to this broader picture. Active travel—walking and cycling, now and in the longer term will have an important role to play in reducing congestion with the inevitable decline of natural resources and the people's receptiveness to walking more (TfL research<sup>8</sup> found that walking is easily the most appealing transport mode. 2008 TfL research<sup>9</sup> also found that over two thirds of Londoners are receptive to walking more over the next year (as opposed to one in four who were receptive to cycling more) and a third would definitely consider walking more).

2.5 However getting the quality of the built environment right is crucial to making streets and places where people want to both walk and spend time. "The design and management of the built environment can create barriers to physical activity—or they can create opportunities for activity that make an active lifestyle an attractive and compelling choice".<sup>10</sup> TfL research<sup>11</sup> also showed that the top three potential motivators for walking more included new and improved public spaces with new seating, new and improved crossing facilities at junctions alongside new and improved walks for pleasure. Involving the community and auditing the quality of streets is the first step to getting the quality of the built environment right.

### 3. REINTEGRATING PEDESTRIANS INTO TRAFFIC MANAGEMENT FRAMEWORKS

3.1 Living Streets recognises that walking, whilst a hugely significant part of the everyday transport mix for people in the UK, cannot be the sole solution to the transport challenges that the UK faces. To that end we would advocate a wider framework of transport investment which also supports, promotes and expands cycling and public transport as alternatives to the car.

3.2 This integrated approach requires the use of definitions and design principles that relate more realistically to human behaviour. Typical interpretations of the terms "traffic", "traffic flow" and "congestion" are generally limited to *vehicular* congestion and traffic alone. This represents a missed opportunity to design streets, places and traffic management solutions that benefit all road users. A glance at a typical high street, with heavy pedestrian traffic and congested footways, is a simple demonstration that pedestrians should be considered within traffic flow. A more holistic understanding of "people-flow" would enable a more realistic understanding of transport constraints across modes. Though less applicable to motorway schemes, Living Streets would reiterate the point that pedestrians need to be recognised as traffic in themselves, rather than an obstacle or impediment for traffic, and traffic management systems should be built with regard to this principle.

3.3 Allied to this broader understanding of the role of traffic management, there is a growing recognition of the need to strike a balance between streets as *places* and streets as corridors for movement. Over time there has been a tendency for policy to focus on movement functions over place functions. Recent guidance, such as the two Manual for Streets publications, does more to recognise and strike this balance, but needs to be better promoted and endorsed and disseminated by national Government.

3.4 Some aspects of road user culture impact negatively on pedestrians and specific national and local government action to tackle anti social pavement behaviour would be particularly useful in re-striking the balance between movement and place.

3.5 Pavement parking is a major problem, particularly outside London, as it not only restricts accessibility for pedestrians, particularly those with mobility difficulties, but also damages pavements, placing already inadequate maintenance budgets under greater pressure, and could also cost lives if, for example, it prevented emergency services vehicles from gaining access to an area. Living Streets would like to see a national framework that assumes a general prohibition of pavement parking, with powers for Local Authorities to designate exemption areas if necessary and desirable, and supports the decriminalisation of enforcement. Whilst we welcome the recent encouragement to councils to use their existing powers to prevent pavement parking from Local Transport Minister Norman Baker, we are concerned that an approach based on designating areas in which pavement parking is prohibited does not go far enough to address the issue and may lead to an increase in street clutter.

3.6 Walking and cycling are healthy, environmentally friendly, and inexpensive modes of transport and a solution to many of our urban transport problems. Living Streets wants to see more people cycling; however,

there is a need to ensure that the needs of more vulnerable pedestrians are adequately prioritised. Living Streets advocates awareness-raising campaigns and improved enforcement to address anti-social pavement cycling behaviour, which can cause anxiety, restrict mobility and deter people from using public space.

3.7 The *civil liability* framework in the UK is currently such that it discriminates against vulnerable road users and must be reformed. As it stands, motor vehicle drivers are presumed not liable for damages in the event of a collision with a pedestrian or cyclist. This is in contrast to most of the countries in the rest of the EU, where the burden of proof falls upon the driver to demonstrate that they were *not* at fault in such collisions. In this way, by establishing an element of fairness in civil liability, we can move towards a culture wherein motor vehicle drivers take their responsibilities more seriously than at present.

#### 4. DESIGN PRINCIPLES AND APPROACHES

4.1 We would draw attention to the importance of adequate pedestrian infrastructure, particularly easily navigable, safe and attractive interchanges, as a major influence on mode choices.

4.2 Currently there is a culture of separating pedestrians from the street environment unnecessarily. We need to reach a situation whereby drivers *expect* to encounter pedestrians more regularly on our streets, and so can adapt their behaviour to the situation—rather than continuing to promote an outdated approach which implicitly places car drivers at the top of the local street hierarchy. This means, among other things, greater enforcement of Highway Code rule 170 (stating that drivers must give way to pedestrians; removing hard “infrastructure” barriers to walking from gyratories and labyrinthine subways to excessive street clutter and minimizing the use of roundabouts to create a more pedestrian-friendly environment.

4.3 The application of “naked streets” design principles such as decluttering and widening of pavements, which encourage more cooperative and responsible road user behaviour through design rather than regulation, can also have benefits far outstripping their costs if they are well-implemented. A prominent example is Kensington High Street, which saw overall road casualties drop by nearly half after a naked streets redesign.<sup>12</sup> The Government’s Mixed Priority Routes schemes also showed that taking into account the needs of all road users can have wider reaching benefits, for example one of the results of this scheme was increased bus usage and reliability.<sup>13</sup>

4.4 Street Management and maintenance is also crucial, it is imperative that at local authority level ensure that they set a joined up vision incorporating asset management, public space and maintenance programmes to ensure effective street maintenance that reduces clutter, maintains the quality of a street and uses public space more effectively, too often inadequate visions and incoherent programmes lead to the degradation of the urban streetscape.

March 2011

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### Written evidence from the Motorcycle Action Group (UK) (ETM 49)

The Motorcycle Action Group welcomes this opportunity to submit evidence to the Committee.

Formed in 1973, MAG is a volunteer-led organisation of 50,000 riders, clubs and businesses. As the representative voice of motorcyclists we campaign across a wide-range of issues that affect the riders' interests and rights.

#### BACKGROUND

Motorcycles use less road space compared to cars (whether travelling or parked), do not add to traffic congestion to the same extent and have higher vehicle occupancy rates. They enjoy shorter journey times than any other mode of road transport and with some relatively straightforward shifts in highways practice can show even greater advantages.

The Department for Transport's National Travel Survey shows 60% of motorcycle trips are for commuting, business or education, compared to 27% for cars (2009 figures).

There has been a significant increase in the number of licensed motorcycles and total distance travelled by motorcycles over last twenty years. The combined effects of general traffic growth and rising fuel costs means the upward trend in motorcycling can be expected to continue as motorcycles are well suited to many individual urban and inter-urban journeys.

It also appears that where a motorcycle is bought primarily for leisure purposes, the rider is highly likely to be a car driver who could be readily persuaded to switch modes for at least some commuting and other non-leisure trips.

However, transport policy and practice continues to neglect motorcycle use, which in turn is preventing it from contributing fully to local and national transport objectives.

The need to raise awareness of motorcycles as a legitimate transport mode is based on the principle that motorcycle use has increased without local or central government advocacy or encouragement. There is a need to make provision for motorcyclists; ignoring any vulnerable mode is unacceptable, especially where use of the mode is growing naturally.

#### GOVERNMENT AND LOCAL AUTHORITIES' ROLE

Road congestion adversely affects large numbers of communities and travellers on a regular basis. It is right that government at all levels should take an interest in reducing congestion, especially in urban areas.

The Eddington Transport Study, published by DfT in 2006, found that:

- 55% of commuter journeys are to large urban areas.
- 69% of business trips are less than 15 miles in length.
- 89% of delay caused by congestion is in urban areas.

The cost of traffic congestion to the UK economy is very high, although different sources use a variety of measurements so the range of estimates appears to be in the order of £10–20 billion per annum.

The Road Traffic Acts place both general and specific duties on national and local highways authorities, so that local and strategic road networks should be safe and efficient for all classes of road user.

However, the potential impacts of highway policy and practice on motorcycle users are rarely considered; consequently the road network is not as safe or efficient for riders as they are entitled to expect.

The principal aim of the Government Motorcycle Strategy (2005–10) was to “mainstream” motorcycling, “...so that all the organisations involved in the development and implementation of transport policy recognise motorcycling as a legitimate and increasingly popular mode of transport.”  
[www.dft.gov.uk/pgr/roads/vehicles/motorcycling](http://www.dft.gov.uk/pgr/roads/vehicles/motorcycling)

The Committee has already conducted an enquiry in to the effectiveness of this Strategy and, whilst there were some very positive outcomes it is clear that there is still a very long way to go before the vision expressed above is realised.



The effect is that the potential benefits of motorcycle use, including the reduction of congestion, are suppressed through institutional blindness to this group of road users.

One example of this is the inertia, sometimes deliberate resistance, shown by local and national travel policy and planning practitioners to help commuters, employers, etc to realise the available advantages of motorcycle use.

Mass transit by bus or rail is not a door-to-door service for most people; where public transport can form a sensible element in business, social or commuter journeys there remains the need for independent travel by road at either end. The idea of combining private and public transport through “trip-chaining” is well-established yet there is little evidence of efforts to integrate motorcycle users’ with public transport for any part of their journey.

The Institute of Highways Engineers summed-up the problem a decade ago in “Guidelines for Motorcycling: improving safety through engineering and integration”.

“2.7.1 Motorcycles can reduce congestion, reduce parking space requirements and improve accessibility, especially at places and times when public transport is limited. Motorcycles also provide a cost-effective mode of transport for those with limited resources. In view of their vulnerability, the specific safety needs of motorcyclists need to be carefully considered by road designers and traffic engineers in the design, implementation and maintenance of any works on public roads. However, it is unlikely that professionals on the operational side of road infrastructure provision will make a step change in their approach to catering for motorcyclists if the lead has not been set by policymakers at local, regional and national level.”

[www.motorcyclinguidelines.org.uk/mg\\_02\\_7.htm](http://www.motorcyclinguidelines.org.uk/mg_02_7.htm)

Motorcycling is often reported to account for 1% of distance travelled by all traffic, but around 20% of all casualties (NB: the number of rider casualties continues to reduce, but not as quickly as for other groups of road user). While there is genuine concern at local and national level about this disparity, that concern has yet to result in 1% of total roads expenditure and 20% of all safety-specific spending being allocated to measures that directly benefit motorcycles users. Conversely, other road user groups have been allocated very large amounts of public resource to improve facilities or safety.

This shift in policy and practice will require a higher level of resource than is currently allocated to motorcycling, but this could be achieved if a more proportionate share of the existing budgets was targeted on some of the most critical aspects of road design, management and maintenance that affect motorcycle users. Principally the two major factors associated with rider casualties:

- collisions with larger vehicles; typically at or near a junction while the rider has “right of way”; and
- rider loss of control; typically when grip is lost during a change of direction, or while braking.

#### TRAFFIC MANAGEMENT, ROAD USER CULTURE AND BEHAVIOUR

Travel by car largely defines the culture, behaviour and management of our roads. Cars account for the highest proportions of vehicles on the road, distance travelled and number of journeys. The needs of other modes tend to be marginalised, a fact recognised (but not yet adequately addressed) by the DfT:

The National Travel Survey (2009) shows that 69% of commuting or business trips are made by car, but that 85% of commuter car trips are single occupancy.

[www.dft.gov.uk/pgr/statistics/datatablespublications/nts/latest/nts2009-09.pdf](http://www.dft.gov.uk/pgr/statistics/datatablespublications/nts/latest/nts2009-09.pdf)

Overall, the average number of people carried per car trip is only 1.6 persons, a figure that has remained constant for many years. Typically, cars have seating capacity of around 5–6 people including the driver, the dimensions of these vehicles are reflected in the amount of road space taken in traffic and when parked.

The Government’s Motorcycle Strategy comments on research commissioned by the DfT to assess the impact on traffic congestion where people choose to travel by motorcycle. The conclusion was that, although this is a complex issue, a switch from single occupant car journeys to motorcycle would clearly bring congestion benefits.

The introduction of the London congestion charging scheme saw an immediate increase in the use of motorcycles as a result of their exemption from the charge and a reduction in collisions involving motorcycles within the charging zone.

To maximise the environmental benefits of a switch from cars to motorcycles there also needs to be a commensurate increase in convenient and secure parking provision. This is an important policy consideration; given the relative ease with which motorcycles can be stolen, the absence of secure parking near to the riders’ destination can be a severe barrier to motorcycle use or lead to inappropriate or illegal parking. Because motorcycles make far more efficient use of parking space, the unit cost of providing motorcycle parking is low. Indeed, making no charge for motorcycle parking is a simple way to reduce demand for car parking space.

## LEGISLATIVE PROVISIONS FOR ROAD MANAGEMENT

For motorcycle users the main concerns are to do with the urgency, frequency and reliability of the finished state of road openings and repairs, ie; the end result is often more important than the disruption from the works themselves.

To quote once more from the IHE guidelines:

“... the specific safety needs of motorcycles with their reliance on an adequate and consistent friction between their tyres and the road surface, have sometimes been overlooked by policy makers, planners, road designers and maintenance engineers. Raising awareness among these professionals will help redress the balance in providing for motorcycles.”

MAG notes the publication in April 2010 of the DfT’s Code of Practice “Specification for the Reinstatement of Openings in Highways”. It is hoped this will reduce the frequency of road repairs as it provides for a wider range of approved materials and working methods to undertakers carrying out works.

[www.dft.gov.uk/pgr/roads/network/local/streetworks/cop/sroh/](http://www.dft.gov.uk/pgr/roads/network/local/streetworks/cop/sroh/)

Beyond that, there is a need to take the opportunity to ensure consistent levels of grip for motorcycles across the whole of the carriageway, addressing the many faults and features that result in a sudden change of available grip to the tyres of single-track vehicles in particular.

The launch of the “Get A Grip” campaign at a Parliamentary reception in November 2010, and at the largest UK motorcycle consumer show “Motorcycle Live” soon after, has resulted in a number of local highways authorities starting to take more notice of these issues. The campaign is led by MAG with support from the IHE, Asphalt Industry Association and manufacturers of innovative alternatives to traditional low-grip features on the road—in the first instance replacing traditional metal surfaced inspection covers in high-risk locations (especially around bends and junctions) with modern alternatives that offer good grip-levels similar to the surrounding carriageway throughout their service life.

## BUS LANES AND OTHER ASPECTS OF ROAD LAYOUT

### *Bus Lanes*

Introducing a bus lane can result in other traffic lanes being “squeezed” and less road space for motorcycles to percolate through congested traffic. This adds to vehicle congestion and the avoidable hazards faced by motorcycle users.

Government guidance on permitted vehicles in bus lanes has moved from a presumption against to a neutral stance. Local authorities are told to decide for themselves but there remains inertia against change at local level.

As part of its continuing analysis of permitted use of bus lanes by motorcycles (including mopeds and scooters, referred to collectively as “Powered Two Wheelers”), Transport for London commissioned research to assess the scale of any time savings and consequent emission reductions from PTWs compared to cars. [www.tfl.gov.uk/assets/downloads/pt-emissions-study.pdf](http://www.tfl.gov.uk/assets/downloads/pt-emissions-study.pdf)

After comparing the performance of small, medium and large engine capacity motorcycles, against small, medium and large cars travelling identical commuter journeys in London, TfL found that PTW journey times were 29.3% lower than comparable car journeys, or 36.6% quicker when PTWs can use bus lanes.

Other benefits include lower fuel consumption, reductions in emissions of Carbon Dioxide, Oxides of Nitrogen, Carbon Monoxide, Total Hydrocarbons and Benzene. Compared to comparable small, medium and large PTWs using Bus Lanes, Petrol cars emit an average of between 2 and 6 times more CO<sub>2</sub>, between 1.5 and 6.5 times more Oxides of Nitrogen than PTWs using bus lanes and consume an average of between 2 and 6 times more fuel than PTWs using bus lanes.

NB: The reduction in PTW journey times and emissions from using bus lanes is itself significant, but does not account for the scale of these reductions. PTW use of bus lanes cuts their CO<sub>2</sub> emissions by between 0.4% to 9.0%, cuts Oxides of Nitrogen by 0.4% to 10.1% and cuts fuel consumption by 0.4% to 9.0%.

### *Advanced Stop Lines*

Advanced Stop Lines at traffic signals have been shown to provide a relatively safe area for two-wheelers to set-off and make safer turning manoeuvres after filtering to the head of stationary traffic. To date their use has almost entirely been for the benefit of pedal-cycle users, DfT’s attempts to examine the benefits to motorcycle users have been resisted by local authorities with the result that riders of both human-powered and motorised two-wheelers may be unnecessarily disadvantaged.

### *Traffic Calming devices*

Traffic calming aims to reduce traffic speed and discourage traffic seeking to avoid congestion hot spots. However, the design of common traffic calming devices can create unnecessary hazards for motorcycle users where the geometry or materials used create grip problems (an example of what may become an increasingly

common practice was reported in Motor Cycle News [www.motorcyclenews.com/MCN/News/newsresults/General-news/2010/February/feb2610-road-with-200-manhole-covers-per-mile/\\_/R-EPI-122430](http://www.motorcyclenews.com/MCN/News/newsresults/General-news/2010/February/feb2610-road-with-200-manhole-covers-per-mile/_/R-EPI-122430) ) or where the design appears to rely on creating potential conflict between opposing vehicles (an example of the potential outcome was reported by a local paper recently [www.yorkshireeveningpost.co.uk/news/latest-news/wakefield\\_driver\\_is\\_cleared\\_of\\_causing\\_biker\\_deaths\\_1\\_3086397](http://www.yorkshireeveningpost.co.uk/news/latest-news/wakefield_driver_is_cleared_of_causing_biker_deaths_1_3086397) ).

### Roundabouts

Roundabouts can assist traffic-flow at junctions, but again there are issues with design aspects that appear to be unnecessarily hazardous for riders. These include features that are likely to cause loss of grip (eg; demarcating HGV overrun areas with low kerb-stones and conversion of “T” junctions into mini-roundabouts without levelling the road surface), or reduce the ability of other vehicle drivers to see motorcycles on the roundabout (eg; modified sight-lines and visual barriers that restrict drivers’ view of circulating traffic), etc.

### CONCLUSION

There is no doubt that the potential for motorcycling to contribute positively to local and national transport objectives, not least tackling traffic congestion, is yet to be fully realised. The principle causes have remained largely unchanged over recent decades. The challenge expressed by previous Ministers remains as valid today as it was when the motorcycle community first sat down with Government to help draw up its Motorcycling Strategy nearly a decade ago:

“We want to see an end to old stigmas and stereotyping—motorcycling can be a modern, practical way of getting around, and we all need to recognise it as such.”

[www.dft.gov.uk/pgr/roads/vehicles/motorcycling/](http://www.dft.gov.uk/pgr/roads/vehicles/motorcycling/)

March 2011

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### Written evidence from Cadence Driver Development (ETM 50)

1.1 The team of advanced driving coaches from Cadence Driver Development welcomes the invitation from the Transport Select Committee to submit further evidence to its members for their consideration and it thanks them for the opportunity of engaging in this Inquiry.

1.2 Cadence Driver Development is represented at this Inquiry by its principal coaching consultant, Hugh Noblett,<sup>1</sup> who is an ardent believer in and advocate of the benefits of lifelong learning. In the context of this Inquiry, he offers his expertise in his capacity as founder of Cadence Evolution, the non-commercial division of the organisation, dealing with both road safety and economic perspectives.

1.3 The request for our submission is specifically related to input on Topic 2 (road user culture and behaviour and the relevance of the Highway Code to today’s road users), being our area of specific interest and expertise. However, we have included brief comments on the other topics for both completeness and continuity.

### 2. OVERVIEW

2.1 A certain amount of Government and/or Local Authority intervention is necessary for Society to function successfully. Traffic movement is no exception. However, during periods of austerity, funds for initiatives perceived as “non-essential” will necessarily be either refused or severely restricted. One of the key factors of congestion is the human influence and an unwillingness to take personal responsibility, to make individual, rational, or sensible decisions. On the whole, Society has negligible self-motivation. In many respects, Society now expects Government to provide solutions to many of life’s changing issues, which only factors in additional costs. The new Government and Local Authorities now have an ideal opportunity to encourage people to develop a culture of involvement at both local and national levels, thus reducing the State’s financial burden.

2.2 Successive Governments have allocated substantial funds for financing electronic solutions to what is essentially a human problem. Although some intervention is necessary for traffic flow at strategic locations, a nationwide “roll-out” of such systems will place considerable strain on the country’s finite resources and will require additional, constant upgrades and maintenance. An alternative approach is to invest in Society, which given time, good leadership and local encouragement, will perpetuate its own solutions.

2.3 The worst traffic congestion occurs at peak hours. If road travel is unavoidable, the majority of drivers expect to allow extra time for their journeys. However, there is evidence that actual journey times are falling slightly and that density is also decreasing, some of which is due to the current economic climate. Drivers feel more concerned when *unexpected* delays occur, typically outside commuter periods. Delays are often the result of minor incidents, heavy vehicle spillages or bridge strikes that affect both local road and rail traffic. Most are avoidable and many are exacerbated by Health and Safety legislation being applied to the letter, without providing adequate information.

Response

### 3. TOPIC 1

*“The extent to which the Government and local authorities should intervene to alleviate congestion and the best means of doing so”*

3.1 Consider improving traffic light phasing to ease flow rather than obstructing it.

3.2 Consider the feasibility and benefits of adopting the European “merge in turn” system, at roundabouts.

3.3 Coordinate major road-works to avoid concurrent capacity reductions on alternative primary routes.

3.4 Consider enforcement on road construction and maintenance companies to adopt a Continental (“rolling repair”) approach to major road-works schemes. Instead of five or more miles of narrow lanes, with the workforce only in attendance and working at one location, consider building or repairing a stretch of shorter distance. Once completed, prioritise cones removal, return the stretch to normal and move manpower, cones and equipment to the next phase. The present policy creates frustration and leads to carelessness as drivers pay reducing attention, when driving at low speeds over longer distances.

3.5 Prior to entering road-works with lane closures, consider implementing an 800m advisory merge-in-turn (or zipper) system. It is already European law.

3.6 Consider offering incentives to haulage companies to move freight between the hours of 20.00 and 05.00 with exemptions for “essential” and fast moving consumer goods (FMCG).

3.7 Consider further evaluation of ongoing trials restricting LGVs on two-lane dual carriageways to the nearside lane during peak times (and also consider implementing the French rule of zero heavy freight movements on Sundays).

3.8 Prioritise roll-out of high speed Broadband for the whole country to encourage home- and tele-working.

### 4 and 5. TOPIC 2

*“The extent to which road user culture and behaviour undermines effective traffic management, including the relevance to today’s road users of the Highway Code”*

For clarity, we have treated Topic 2 as two separate issues (4 and 5 below):

#### 4. ROAD USER CULTURE AND BEHAVIOUR

4.1 Encouraging personal responsibility is a key factor in re-enabling and motivating people to engage with a greater society. Driving is no exception. Driving is a highly complex task that goes far beyond the mechanical skills of propelling a motor vehicle from A to B. We need to alert drivers to their responsibilities, not only to themselves but also to all other road users. Current road user culture and undesirable attitudes and behaviour, singly or in combination, often have a dramatic effect on traffic flow and road user safety. There are over 34 million drivers, possessing different personalities and predispositions, developed during childhood and often influenced negatively by a fragmented family life or exposure to undesirable peer behaviour.

4.2 Particularly noteworthy traits are:

- (i) *Inattention*—drivers must be encouraged to appreciate that driving requires total concentration in order to remain safe and crash-free.
- (ii) *Poor decision-making*—drivers are not taught to have “a plan of action” and often lack the skills to reach consistent and rational decisions.
- (iii) *Poor lane discipline*—not returning to the nearside lane of a motorway after overtaking wastes valuable road space. (It also encourages deliberate “undertaking”, which breaks the law, Highway Code Rule 268).
- (iv) *Distraction*—allowing the mind to be diverted from the driving task compromises safety for all and compounds already erratic and unpredictable behaviour.
- (v) *Tailgating*—drivers need to be made far more aware of the *time* it takes to react to constantly changing situations. Tailgating is a major cause of traffic delays, lane closures and rear-end shunts, requiring the attendance of Highways Agency Traffic Officers—and in the event of more serious incidents involving death or serious injury, the presence of Police and Accident Investigation Officers, and recovery crews, often requiring a substantial period of road closure. Additionally, the opposing carriageway flow repeatedly suffers through a nationwide obsession with “rubber-necking”, often leading to a “domino effect” of additional incidents as a result of following too closely, compounded by inattention. Subsequent delays increase fuel consumption and pollution levels, while creating further frustration.
- (vi) *Lack of spatial awareness*—drivers have become cocooned in their comfortable, “safe” and soundproofed vehicles. They must be advised of the need to make constant reviews of the situation ahead, to the sides and to the rears of their vehicles.

- (vii) *Lack of restraint, courtesy and consideration*—leads to unnecessary altercations with other road users. A culture of mutual cooperation should be encouraged.
- (viii) *Over-reliance on a vehicle's active and passive safety systems*—no vehicle can stop “on a sixpence”. It takes time. Electronic aids were devised to mitigate for driver error and they manage many situations extremely successfully but even they cannot defy the laws of physics. The careful, competent driver embraces the technology but rarely activates it.
- (ix) *The belief that a licence is a “right”, or an expectation*, rather than a privilege that must be earned through hard work and commitment to knowledge and understanding of how to form robust risk strategies.
- (x) The anomaly of more than 50% of the driving population believing itself to be better than average.

4.3 To rectify these traits requires guidance—a positively encouraging hand from Government—and not a reliance on enforcement, with its resulting antipathy towards authority. To achieve greater awareness, there will be a financial cost—through advertising campaigns, media programmes and promotional exercises. This may involve nursing the public's obsession with high profile celebrities and encouraging them to act as “road culture ambassadors”, with whom the target audience(s) feels that it can identify. The cost of such ongoing campaigns is minimal, when compared with the investment required to build wider roads or erect nationwide “intelligent” and potentially unreliable transport systems. Encouraging the population to become more responsible starts in childhood and lasts a lifetime. Future generations will benefit from today's foresight.

4.4 All messages need to be simple, memorable and make sense to the target audience. Drivers must open their eyes to the problems they can cause, starting with a more comprehensive and regular eyesight testing regime. (Recommendation from the Eye Health Alliance, 2010)

4.5 In addition to a number of suggestions listed in our previous submission to this Committee (1 November 2010),<sup>2</sup> our experience leads us to conclude that wherever possible, simplification of the driving environment will assist the driver in focusing on the task in hand, which will inevitably result in fewer traffic incidents—the major cause of traffic congestion. By focusing on improving driver behaviour and skills, there will without doubt, be fewer incidents, road closures and delays and their economic impact will be minimised.

4.6 Confusion arising from excess signage and superfluous street furniture is a further issue—the increasing proliferation of unnecessary and often over-complicated road signage leads to hesitation and indecision, not just for British nationals. Poor placement often results in reduced or even blocked views for drivers. They have a detrimental impact on the environment, are costly and lack consistency across counties. The brain, already involved in highly complex tasks, becomes overloaded. The result is unnecessary distraction, misunderstanding and misinterpretation, often leading to non-compliance, inappropriate decision-making and incidents.

4.7 With fewer signs, there would be less “clutter” and a more pleasant environment for all. Placing fewer signs also results in cost savings for the Local Authority. Removal of unnecessary signs reduces maintenance costs. Clarification and simplification of statutory rules on where to position necessary signs and guidance on uniformity will help authorities, which have tended to “over sign” for fear of prosecution. Careful, competent drivers will welcome a clear, consistent and a more minimalist approach.

## 5. THE RELEVANCE OF THE HIGHWAY CODE TO TODAY'S ROAD USERS

5.1 The Highway Code (HC) is a particularly good example of the effects of long-term revision rather than recognizing a time for replacement. In 1954 the HC was 6½ “x 4” and contained 32 pages of advice, information on law—and 71 Rules, of which 15 were specifically for pedestrians; six were for cyclists; five were directed at pedestrians accompanying animals, with the remaining 45 for motorcyclists and drivers. The cost was one Penny.

5.2 Today we have a 145-page book containing 307 Rules, explanations of road signs, road markings and an annexe containing 10 pages of additional information, including some extra Rules (highlighted in red) that could be missed easily. One page is even dedicated to helping the reader to identify the difference between a Highways Agency Traffic Officer (HATO) and a Vehicle and Operator Services Agency (VOSA) Officer, with additional information on how to identify the different ways a Schools Crossing Patrol operator uses the “lollipop”.

5.3 The decision must have been made in the early-1970s that to include the increasing number of signs in the HC would render the book unwieldy. Since 1975 there has been an additional publication “Know your Traffic Signs” that runs to 143 pages, costs £4.99 and is largely unknown to the majority of road users. It is unsurprising that many people make inappropriate decisions, when there is so much to interpret.

5.4 It is unlikely that the majority of people could possibly learn and retain all 307 Rules in the current HC.

5.5 Anecdotal evidence suggests that the newly qualified driver often takes great delight in throwing away the HC along with the “L” plates, never to be referred to again.

5.6 The style of writing and content is aimed at new drivers. More experienced drivers see no reason to own a copy, let alone to refer to it for guidance or memory refreshment.

5.7 The HC should be greatly simplified. Much of what is written could be extracted to form additional modules, thereby enhancing the novice driver curriculum and could be used extensively during the two-year restricted licence phase of learning<sup>3</sup>. A concise extrapolation of the remainder could be used to form a simplified, user-friendly and pocket-sized legal guide, with the emphasis on “legal” as this would assist drivers in knowing their responsibilities. It would be cost-effective to send copies directly to schools, colleges, libraries and local government offices. The general public could receive their copies at the same time as their applications for a Driving Licence or at the time of annual VED renewal. Production and publication costs could be covered by a nominal one-off increase in vehicle tax, or by commercial sponsorship arising from a PPP, with perhaps a print-house or a major motoring organisation.

5.8 A new HC could start with common sense guidance<sup>4</sup> outlining the principles of safe, responsible road use...for example:

ALWAYS

Walk, ride or drive *responsibly*.

*Take care.*

*Concentrate.*

*Look* before you act—don’t be blind to your “*blind spots*”.

*Communicate* clearly.

Allow *time* to think first.

Create *space* around you.

Read the road ahead and *use speed intelligently*, adjusting it to your surroundings.

Drive to the road and weather *conditions*—not the speed denoted on a sign.

Anticipate what might happen—“*What if?*”.

Be *decisive*, not hesitant.

Be *calm*—don’t rush.

Be *courteous* and *considerate*.

*Cooperate* with others.

*Share* road space—share *information*.

5.9 The remaining elements, the traffic rules; the “Musts” and “Must Nots”; the significance of sign shapes and colour; traffic law and concise motoring advice would follow. A section should be included briefly outlining the need to improve driving skills on a cyclical basis, with inclusion of the benefits of “advanced thinking”, safety, improved fuel consumption, more efficient use of time and highlighting the personal satisfaction arising from a sense of greater achievement. At the end of the booklet there would be general references on how the new two-tier licensing system<sup>3</sup> would work and the need for already experienced drivers to help and cooperate with “R” plate drivers.

5.10 Simple elements of road and vehicle awareness, linked with the development of a safety culture would be introduced to children of nursery school age, with more complex elements being incorporated as part of a continual process throughout the formative years. The new, simplified and memorable Highway Code would form the backbone of all subsequent learning.

5.11 We highly recommend commitment to a continuation of the excellent awareness presentations to schools, carried out by the police, fire and ambulance services. Fostering a much-needed and positive relationship with the police in particular, from an early age, will do much to refocus ingrained perceptions and enlighten an increasingly unresponsive and uncooperative public to their broader rôle.

5.12 In the 1930’s, The Earl of Cottenham became advisor to the Metropolitan Commissioner of Police and was a major contributor to the development of a safe, systematic and repeatable method of driving (“*Roadcraft*”), subsequently adopted by police and other services around the world. With great prescience he wrote,

“Drive with concentration and deliberation and these words will be just as true in fifty years hence...”

“Road sense is the visualising of possible difficulties and dangers before they are apparent and the consequent mental formation of strategy to avoid them...”

Those statements are even more relevant to today’s congested roads, poor attitudes and behaviour, and the increasingly hostile driving environment.

## 6. TOPIC 3

*“Intelligent traffic management schemes, such as the scheme which has operated on the M42, and their impact on congestion and journey times”*

6.1 Successful initiatives in one location (eg M42 Active Traffic Management) will not necessarily have the same effect elsewhere. Feasibility studies and research may provide more suitable and cheaper alternatives to costly blanket implementation.

6.2 Variable message signs may ease congestion on a strategic road (Motorways) only to cause a problem for the local authority route chosen as an alternative. On motorways, there are no vulnerable road users. By alerting traffic to problems ahead (variable matrix signs), the already frustrated driver does not necessarily adapt to the more complex driving environment experienced on narrow local roads and higher “catch-up” speeds may result. The greatest congestion often occurs at peak traffic times, which brings diverted traffic into unnecessary conflict with local movements, particularly school age children. Convenience for one set of road users should not have a detrimental effect on others. A balance is necessary.

6.3 While there may be an increasing reliance on satellite navigation and “intelligent” transport systems, the infrastructure is expensive to install and maintain; recent perceptions suggest unexpected unreliability and far cheaper alternatives can be implemented.

## 7. TOPIC 4

*“The effectiveness of legislative provisions for road management under the New Roads and Street Works Act 1991 and the Traffic Management Act 2004”*

The content of this legislation is outside our area of expertise and we have no comment other than to applaud any efforts to implement a cohesive and concurrent plan for street disruptions and collaboration between the Highways Agency and Local Authorities.

## 8. TOPIC 5

*“The impact of bus lanes and other aspects of road layout”*

8.1 With our limited experience of bus lanes, it would appear they have achieved their objectives in some situations but where the road layout precludes a continuation, it is often counterproductive, especially when the backlog of prohibited traffic prevents the bus from continuing into the section further ahead.

8.2 Some bus lanes, on stretches longer than one mile, have had a positive impact on reducing journey times and local awareness campaigns may encourage drivers to change their mode of commuter transport.

8.3 A number of serious injuries to cyclists have resulted from shared use of bus lanes. Extra vigilance is required from both bus drivers and cyclists alike (awareness campaigns). To permit additional classes of vehicle into bus lanes is likely to increase casualty figures and add to the frustrations of prohibited drivers.

8.4 Yet, all of the above-noted points only have relevance when the bus lanes are restricted to bus travel alone. With recent changes to usage, plus the self-interest of other user groups, we run the risk of creating a lane for every type of vehicle, bar the private car.

## 9. SUMMARY

9.1 It is not roads that make people safe or dangerous. It is the ways in which people use them; from the unaccompanied child walking to school, the teenager listening to his or her personal music system, to the cyclist, motorcyclist, car, van or truck driver. Encouragement must be given from an early age to embrace a culture change that promotes a desire to share our road space safely and with mutual cooperation.

9.2 Through motivation and incentives to embrace a lifelong desire for personal improvement, our lives will be enhanced and Society will refocus on reducing materialism and self-interest.

9.3 Encouraging people to take responsibility for their actions will improve driving standards (which are at an all-time low). By adopting a greater involvement in the driving task, road crash numbers will continue to reduce. The benefit to society is manifold but, in particular, its effect on the finite resources of hospitals and emergency services will have both social and economic ramifications.

9.4 In order to re-build a cohesive, cooperative and inclusive society, we should endeavour to simplify, engage, educate and encourage people to take an active rôle in becoming an integral element of a more thoughtful, less self-centred and more self-reliant nation. The tendency to continue relying upon on a policy that uses punishment, as its major weapon to rectify the symptoms, fails to address or recognise the causal factors. By addressing the causes, we have the opportunity to develop a low cost, enduring solution for a long term future.

9.5 Without doubt, no Member of Parliament would wish to see avoidable harm befall a fellow countryman, particularly when we have the means at our disposal to prevent unnecessary death or injury and improve the quality of life for all road users. Now is the time to begin the process of awareness, before our driving society becomes too deeply entrenched in its susceptibility to demonstrations of recurrent, unacceptable and damaging attitudes and behaviours.

9.6 We are confident that MPs will appreciate the benefits to society that can be achieved by encouraging “ownership” of the problem, a shift towards an understanding of how mutually cooperative values and behaviours can benefit not just the individual but also broader society. With a strong belief in the need to address this issue and by establishing a nationwide desire for cultural inclusion and mutual cooperation, we can motivate, influence and, in time, reap the rewards of a committed investment in the welfare of the nation.

9.7 This issue is not party-political and previous incomplete measures and random quick fixes have regularly failed. Few policies have extended beyond the period of office of the elected Government of the day. With foresight, courage and cross-party collaboration in championing a national culture revolution, based on social responsibility and an expectation of lifelong learning, to which there is no left, right or centrist bias, we have the opportunity of creating a better society for the benefit of all.

9.8 We are optimistic that this committee will be sensitive to the findings in our submission. We have the opportunity of creating an initiative that will have far-reaching effects on the state of the country, in particular:

- (i) massive savings in healthcare, emergency services, traffic management schemes, repairs and insurance costs;
- (ii) vastly improved air quality;
- (iii) greater savings in fuel usage;
- (iv) a more complete and contented society;
- (v) a positive benefit in reduction of the human aspects following injury or death collisions; and
- (vi) an enduring legacy for future generations.

#### REFERENCES (referenced documents not reprinted here)

<sup>1</sup> Hugh Noblett—Personal information.

<sup>2</sup> Cadence Driver Development Submission to TSC (1 November 2010).

<sup>3</sup> Recommendation for implementation of two-tier licensing (1 November 2010).

<sup>4</sup> CDD Common Sense Guide to safe, responsible road use™.

Research papers (CDD) “Cradle to Grave” educational programmes; road safety (please refer to CDD). Further references as per CDD evidence papers, (1 November 2010).

*March 2011*

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### **Written evidence from the Greater London Authority (ETM 52)**

#### 1. INTRODUCTION

1.1 The Greater London Authority (GLA) welcomes the opportunity to contribute to the Committee’s inquiry into effective road and traffic management in the light of the Government’s decision not to introduce road pricing on existing roads (except in relation to Heavy Goods Vehicles).

1.2 The GLA encompasses a range of “Functional Bodies”, including Transport for London (TfL), which acts as the Mayor’s Strategic Transport Authority. TfL is responsible for most of the capital’s transport system including the Transport for London Road Network (TLRN). The TLRN consists of the busiest 5% (approximately 580km) roads in London, carrying over 30% of all traffic. Because of the greater proportion of commercial freight and business related traffic (eg commuting), the TLRN is estimated to account for up to 40% of the gross economic value of traffic related movement across the city.

1.3 Through the Traffic Management Act 2004, TfL also has a strategic responsibility, and specific powers, to coordinate works and ensure the free flow of traffic on the wider Strategic Road Network (SRN). It is also responsible for the maintenance, management and operation of all of London’s 6,000 traffic signals, and for the real time operational control of the road network through the London Streets Traffic Control Centre (LSTCC) and the London Streets Tunnels Operations Centre (LSTOC), whose role is to reduce the likelihood and levels of disruption and delays by responding quickly to manage traffic around any incident or event on the network.

#### 2. THE MAYOR’S TRANSPORT STRATEGY

2.1 Much has been achieved in London over the last decade to reduce or manage the demand for road-based travel (including an unprecedented 7% increase in walking, cycling and public transport mode share). However, because of forecast economic and population growth (with a further 1.25 million people and 750,000 extra



jobs likely to be created by 2031), even with future planned transport investment (eg Crossrail, Tube upgrades and National Rail investment including Thameslink), congestion in London is still forecast to grow.

2.2 The Mayor's Transport Strategy (MTS) sets out the wider transport planning context and spatial framework for the management of roads in London. The MTS aims to achieve six high level goals:

- supporting economic development and population growth;
- enhancing the quality of life for all Londoners;
- improving the safety and security of all Londoners;
- improving transport opportunities for all Londoners;
- reducing transport's contribution to climate change, and improving its resilience; and
- supporting delivery of the London 2012 Olympic and Paralympic Games and its legacy.

2.3 London's road network is the most congested of any area of the UK. Congestion costs an estimated £2 billion in lost economic productivity, adversely affects Londoners' quality of life, causes frustration to road users, contributes to a deterioration of air quality and leads to higher CO2 emissions.<sup>84</sup> The road network therefore has a contribution to make to achieving each of these goals, and plans are being developed accordingly.

2.4 Under the general heading of managing the road network and smoothing traffic flow, the MTS sets out a series of policy proposals under six key themes, as follows:

- maximising the efficient and reliable operation of the road network;
- minimising the impact of planned interventions on the road network with the potential to disrupt traffic flows;
- minimising disruption from unplanned events (accidents, emergencies, etc) in "real-time" as they occur and return the network quickly and efficiently to its planned steady state operation as soon as possible;
- managing demand and achieving modal shift away from car based traffic movements towards more sustainable modes to reduce traffic growth pressures on the network;
- where feasible, and where there is an overall congestion reduction and local economic benefit, developing the road network; and
- maintaining road network assets in a good state of repair.

### 3. THE NETWORK OPERATING STRATEGY

3.1 The efficient management and operation of London's strategic road network is of significant economic importance, not only to London itself, but also to the wider UK economy as a whole. TfL is developing a Network Operating Strategy which aims to bring together the best practice in road network management and provide a strategic framework for the operational management of London's road network. It will set out specific advice and guidance for those involved in day to day decision-making in TfL, the London boroughs and other organisations charged with the delivery of the road management related aspects of the MTS. It is also intended to assist in the implementation of the developing Sub-regional Strategies and borough Local Implementation Plans (LIPs), as well as providing a framework through which to prioritise both capital investment and "business as usual" operational expenditure decision-making across the road network. The main outputs of the Strategy are set out below.

3.2 Responding to the development of the new MTS, TfL has undertaken customer research and has identified a set of key performance measures that collectively quantify the performance of the road network in terms that road users understand. These are as follows:

- journey time reliability (the strategic MTS outcome measure);
- journey time/traffic speed;
- volume of demand;
- volume of delay and disruption due to planned and unplanned events;
- numbers of road works and other events or incidents recorded (ie impacting on the availability of the network); and
- customer satisfaction with road network performance.

#### *Maximising the efficient and reliable operation of the network*

3.3 TfL has identified 23 London-wide TLRN corridors for which it is undertaking work to develop a better understanding of performance, particularly in terms of journey time reliability. This work includes the

<sup>84</sup> MTS, page 21, paragraph E19

development of detailed corridor simulation models that will allow for the testing of potential measures to improve journey time reliability. The following points set out some of the key actions TfL is currently implementing to deliver performance improvements:

- Reviewing the timings of 1,000 sets of traffic signals each year.
- Installing SCOOT (Split Cycle Offset Optimisation Technique) at an additional 1,000 sets of traffic signals across London. SCOOT is an automated, intelligent traffic signal control system which can dynamically change signal timings to best suit prevailing traffic conditions. The SCOOT system provides on average a 12% reduction in delay and an 8% reduction in stops for traffic where installed. London has approximately 6,000 traffic signals, a third of which currently operate under SCOOT control. TfL plans to upgrade 1,000 more signals to SCOOT control by 2012–13.
- In conjunction with the Department for Transport (DfT), trialling Pedestrian Countdown, an initiative which delivers benefits to pedestrians by providing information about how long pedestrians have to cross the road at traffic signals at eight junctions in London.
- Exploring the benefits of removing traffic signals at certain locations and, where safe and appropriate, replacing them with alternative measures that make it easier for motorists, pedestrians and cyclists to get about. A number of boroughs have also implemented pilot initiatives across London.

#### *Minimising the impact of planned interventions*

3.4 TfL's overall approach, as reflected in the MTS, to reducing the impact of planned events on the road network is two-fold:

- (i) to improve cooperation and coordination between highway authorities, utilities and other organisations, to ensure works and other events are well planned, and that all opportunities are taken to mitigate disruption; and
- (ii) to develop real incentives for works promoters to apply best practice and reduce the amount of time they spend digging up roads and/or disrupting traffic.

To support this approach, TfL has implemented a number of initiatives including:

- The Mayor's Code of Conduct for road works. The Code, launched in April 2009, brought together TfL and the main utility companies working in London to work in partnership to reduce the impact of road works on London's roads. The signatories agreed to work to ten key principles including: the provision of information boards at works sites; carrying out more work outside peak hours; reducing occasions when works over-run their agreed durations; cooperating with joint working and "workathons"; and considering "plating" over holes in the road and footway, wherever possible.
- The London Permit Scheme (LoPS). A further commitment in the original Code of Conduct was the introduction of a new permitting scheme for road works in London. On 11 January 2010, TfL and 16 participating boroughs became the first highway authorities in the country to implement a road works permit scheme, replacing the previous New Road and Street Works Act 1991 "noticing" arrangements. A further two boroughs joined the scheme on 1 April 2010.

TfL is using powers provided by the permit scheme to control the number of permits issued and, through this, the volume of activity taking place on the TLRN at any one time. Working closely with the utility companies, TfL is aiming to achieve a 5% reduction in the overall numbers of road works, although much higher reductions (up to 20%) are being targeted in levels of peak activity

- Lane Rental  
However, improving coordination and control of roadworks can only go so far. The Mayor and TfL strongly believe that there is a need for real incentives on the utility industry to find new ways of working that avoid, or severely reduce, the need to dig up our busiest roads at the busiest times of day. For this reason, TfL is very keen for the DfT to provide it with the powers to introduce a targeted lane rental scheme for utility works on the busiest parts of the TLRN and would very much welcome the Transport Committee's support for this approach.  
TfL believes lane rental would incentivise the streetworks industry to deliver real behavioural change and encourage it to change working practices, develop innovative working methods (eg more joint working and shared contractors) and new technology (eg "no dig" technologies; more sophisticated bridging and plating systems; application of new materials for trench reinstatement that do not need 24 hours to "cure") to reduce the footprint and duration of works.  
By introducing a targeted lane rental scheme (with charges applicable only at the busiest sections of the TLRN, at the busiest times of day) there will be opportunities for companies to reduce or avoid the charges, for example by undertaking works at less traffic-sensitive times or by using plating to reopen carriageway to traffic at the busiest times. This will further incentivise innovation.

### *Minimising disruption from unplanned events*

3.5 There will always be unplanned events and incidents on the road network—emergencies, road traffic accidents, breakdowns, road defects and burst water mains—which cannot be planned for in advance.

Minimising the amount of this disruption can therefore have a direct effect on the overall performance of the network. TfL's approach identifies three specific strands of activity to achieve this:

- (a) Identifying and eliminating potential causes of unplanned disruption to minimise their occurrence in the first place. A range of initiatives and actions are being implemented aimed at minimising the occurrence of unplanned events at these locations. Examples include:
  - Reducing disruption from traffic signals failures at junctions in the Congestion Management Areas.
  - Reducing disruption from vehicle breakdowns and over-height vehicle stoppages on the Blackwall Tunnel corridor. In the nine months to February 2011, for example, the Tunnel has been closed 1,604 times. Seventy per cent of these incidents have been due to drivers ignoring the height restriction warning signs throughout the northbound tunnel, which has a 4.0m (13' 0") height limit. Vehicle breakdowns were responsible for 287 closures, a third of which were due to vehicles simply running out of fuel.
  - Reducing disruption from road traffic accidents.
- (b) Minimising response and clear up times for when incidents do occur. Some examples are:
  - London Streets Traffic Control Centre, which is TfL's primary means through which to achieve optimum incident response and clear up times across the network. This is a 24 hours a day, seven days a week, 365 days a year control centre dedicated to real-time monitoring and management of London's road network and to responding to incidents to minimising disruption and ensuring the free flow of traffic.
  - Improving incident detection.
  - Responding to incidents by optimising the location and availability of key response teams.
  - Improving Incident clear-up times through joint working between the various resources on site is also key to minimising disruption for motorists and other traffic.
- (c) Effectively managing traffic around such incidents to minimise the disruption they cause, through:
  - The general management of traffic congestion on the network in the vicinity of an incident through traffic signals control and other measures.
  - The provision and dissemination of good quality traffic information to all road users in order to allow them to make informed choices about when, where, how or if, they should make their journeys on the network.

### *Managing demand and achieving modal shift*

3.6 The MTS highlights a range of activities being undertaken by TfL to promote better transport user information, modal shift towards more sustainable modes and/or reducing the need to travel. These include:

- A range of proposals to support walking, including public realm initiatives that could improve the layout and design of streets to improve accessibility and information improvements such as "Legible London".
- A number of schemes to promote cycling, including Barclays Cycle Super Highways, and Barclays Cycle Hire in central London.
- Continuing to improve the bus network and invest in the Tube upgrades, Crossrail and other National Rail improvements.
- Promoting smarter travel, including through reducing the need to travel, and better information to highlight the best mode for the trip.
- Freight related modal shift initiatives.
- Better public transport information.

All these things, along with the continued operation of the Central London Congestion Charging zone, contribute towards TfL's overall approach to managing the demand for road-based travel.

### *Developing the road network*

3.7 Where feasible, and where there is an overall congestion reduction and local economic benefit, the MTS also allows for appropriate road network development. The most significant is in east London, where, as the economy changes, development will place increasing demand for travel across the river. Therefore, the Mayor is supportive of additional road-based river crossings as part of a package with public transport, walking/cycling river crossings in east London.

*Maintaining the road network assets in a good state of repair*

3.8 Maintaining London's roads, pavements, bridges, tunnels and traffic control systems is vital for the safe and efficient operation of the network as well as to achieve a good quality of life and economic productivity. TfL, working with the London boroughs and other stakeholders will work in collaboration to maintain cost-effectively London's road network assets in a state of good repair in order to maximise their operational safety and effectiveness.

4. THE FOLLOWING COMMENTS ADDRESS SPECIFIC ISSUES RAISED IN THE TERMS OF REFERENCE FOR THIS INQUIRY AND WHICH HAVE NOT BEEN REFERRED TO ABOVE

*The use of technology and Intelligent Transport Systems (ITS) in managing the road network*

- The vision for London's transport system, according to the MTS, is that "London's transport system should excel among those of global cities, providing access to opportunities for all its people and enterprises, achieving the highest environmental standards and leading the world in its approach to tackling urban transport challenges of the 21st century".
- Intelligent traffic management schemes have an important part to play in managing traffic flow. TfL believes it important to maintain investment in introducing already-developed schemes as well as undertaking research into new technology which might provide further benefits.
- TfL will utilise advances in ITS technology to better manage the road network, improve real time traffic management capability, lay the foundations for communication with in-vehicle systems and develop state-of-the-art traffic signal control systems.
- A key component in the future management of the road network is to increase the knowledge of how the network operates through intelligent "situational awareness" systems and to employ the most effective solutions and technological developments to ensure its efficient operation.
- To do this, TfL will continue to develop its state-of-the-art real time multi-modal dynamic traffic control system. This will bring together real time operational data, historic analysis and predictive modelling to more effectively respond to planned and unplanned disruption, and to proactively optimise and manage the available road capacity in real time. Consideration will be given to the increased use of real time communications from vehicle to vehicle, and between vehicles and on-street infrastructure and the central traffic management control system.
- The aim is to create a state-of-the art traffic control system for the 21st century which is capable of maximising the efficient use of road capacity in London.
- Provision of information to motorists is also important in allowing the public to divert around areas of congestion, rather than adding to it. TfL is working with manufacturers of Sat Nav systems, as an example, to determine whether this technology can be adapted to guide motorists away from traffic congestion hot spots. We would commend the Government to explore options to improve the provision of information to drivers also.

*The impact of bus lanes and other aspects of road layout*

- Bus lanes have the potential to provide great journey time savings to bus passengers, heightening the attractiveness of the bus to the public and encouraging modal shift from private transport. However, inappropriately designed bus lanes can reduce overall capacity on the network by taking away a lane that could otherwise be used by traffic.
- The implementation of a bus lane and the loss of capacity can, on occasion, lead to queues of traffic developing that extend beyond the entry point of the bus lane. This prevents buses entering the bus lane and consequently defeats the purpose of the bus lane.
- Poor signage and variable operational hours can also mean that bus lanes are under-utilised by general traffic when not operational. Poor lane alignment when bus lanes terminate prior to traffic signals usually results in a near-side flare that is under-utilised. This should be changed to direct traffic into the nearside lane, with the flare in the off-side lane.
- Similarly, loading bays reduce capacity when in use. Inset, at-grade bays or innovative use of technology (eg, Cooperative Vehicle Infrastructure Systems) should be encouraged.

5. CONCLUSION

The GLA and TfL would welcome the opportunity to give more detailed evidence on its general management and operation of the road network in London, what it is doing to reduce congestion and improve traffic flow, what more it feels central government could do to support it in achieving these objectives.

March 2011

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## Written evidence from the Association of Chief Police Officers (ACPO) (ETM 53)

### 1. INTRODUCTION

1.1 The Association of Chief Police Officers (ACPO) is an independent, professionally led strategic body. In the public interest and, in equal and active partnership with Government and the Association of Police Authorities, ACPO leads and co-ordinates the direction and development of the police service in England, Wales and Northern Ireland. In times of national need ACPO, on behalf of all chief officers, coordinates the strategic policing response.

1.2 ACPO's 341 members are police officers of Assistant Chief Constable rank (Commanders in the Metropolitan Police and City of London Police) and above and senior police staff managers, in the 44 forces in England, Wales and Northern Ireland, and other forces such as British Transport Police and States of Jersey Police.

### 2. WE HAVE BEEN ASKED TO PROVIDE A RESPONSE ON

- the extent to which the Government and local authorities should intervene to alleviate congestion and the best means of doing so;
- the extent to which road user culture and behaviour undermines effective traffic management, including the relevance to today's road users of the Highway Code;
- intelligent traffic management schemes, such as the scheme which has operated on the M42, and their impact on congestion and journey times;
- the effectiveness of legislative provisions for road management under the New Roads and Street Works Act 1991 and the Traffic Management Act 2004; and
- the impact of bus lanes and other aspects of road layout.

#### 2.1 *The extent to which the Government and local authorities should intervene to alleviate congestion and the best means of doing so*

2.1.1 Despite a reduction in the level of traffic using our roads over the last two years, congestion continues to be a problem. The economic impact of congestion, particularly on the strategic road network has been well reported and we accept that it is key driver for tackling congestion. Other aspects worthy of consideration are the frustration caused to drivers caught up in the congestion and the potential for subsequent driving misbehaviour brought about by that frustration.

2.1.2 Whilst we are not in a position to suggest engineering measures to alleviate congestion, we consider that Government and local authorities have an obligation to concentrate on collision reduction. The financial cost of collisions is estimated at up to £30 billion annually, representing 2.3% of GDP. A fatal collision may now cost £2 million to manage. Added to that is the inestimable emotional cost of the death and serious injury to thousands of people every year.

2.1.3 A significant amount of congestion is obviously caused by collisions, particularly on motorways where traffic may become trapped for long periods. Last year there were 18,269 closure incidents on our motorways, although not all of these were caused by collisions. We have been working with Government to look at ways of reducing post-collision congestion and the outcome of that work was announced on 19 May and will be available to the committee. That work will continue at a national level with key partners in the Department for Transport and Highways Agency.

2.1.4 At a local level, local authorities need to work in partnership with police forces to analyse collision data and jointly identify engineering and enforcement activity that will lead to collision prevention. The cuts last year to the road safety grant given to local authorities has led to the withdrawal of council funding to Road Safety Partnerships in some areas and significant reductions in other areas, which may lead to an increase in collisions in those areas.

2.1.5 Average Time Distance Cameras have demonstrated that when they are deployed they achieve very high speed limit compliance rates from motorists. This leads to reduced congestion, improved traffic flow, less accidents and casualties. The compliance rate with speed limits are significantly higher when Average Time Distance Cameras are utilised instead of standard speed cameras. ACPO also recognise the advantages for drivers who might pass an Average Time Distance Camera whilst exceeding the speed limit. They have an opportunity to modify their speed between the first and second camera. If they do so and comply with the speed limit over the set distance they will avoid prosecution. This is beneficial for the driver, the roads become safer, the traffic flow is better and the driver is educated regarding speed limit compliance.

#### 2.2 *The extent to which road user culture and behaviour undermines effective traffic management, including the relevance to today's road users of the Highway Code*

2.2.1 While it is difficult to present any quantifiable evidence, there is a perception that driver behaviour has deteriorated in recent years. However, there is clear evidence that Road Safety Partnerships, through the appropriate placement of speed cameras are saving lives by having a positive effect on driver compliance. This

is supported by Professor Richard Allsop's report showing how the removal of speed cameras would result in 800 more people per year being killed or seriously injured on our roads.

2.2.2 Figures clearly show that speeds on our roads have reduced and the number of speeding offences captured by technology is falling. The perception is that other, equally harmful offending behaviours such as dangerous and inconsiderate anti-social driving has increased due to a less visible police presence on the roads, particularly motorways. These behaviours include undertaking, tailgating, speeding in areas not monitored by cameras and driving without insurance.

2.2.3 This wilful offending will obviously undermine any traffic management system and is likely to lead to collisions with the inevitable consequential congestion. We are addressing this by diverting low-level offenders into education through a simplified process. Evaluation of education courses currently offered to road traffic offenders has shown they are more effective in changing driver attitude and behaviour than enforcement by fixed penalty or prosecution.

2.2.4 The lack of bureaucracy involved in diverting offenders into education will enable us to concentrate on wilful or high-harm offenders thereby improving overall compliance.

2.2.5 It is important that there is a high level of intelligence-led enforcement against these wilful offenders. Automatic number plate recognition (ANPR) has a positive role to play in providing such intelligence, causing level 1, 2 and 3 criminals to be denied the use of the roads by targeted enforcement. This is in line with the ACPO Roads Policing Strategy, which is:

- Denying criminals use of the road by enforcing the law;
- Reducing road casualties;
- Tackling the threat of terrorism;
- Reducing anti-social use of vehicles;
- Enhancing public confidence and reassurance by patrolling the roads.

2.2.6 Many of the persons arrested at the roadside will not have licences, insurance and often will not be driving the vehicle in a safe manner. The Central Motorway Police Group (CMPG) manage a very effective network of ANPR cameras that in the last year alone resulted in the arrest of some 490 cross-border criminals. Seizures amounted to £2.1 million in drugs and under the Proceeds of Crime Act (POCA), some £3 million in cash and assets.

2.2.7 ANPR has also had a significant role to play in counter-terrorism, providing invaluable evidence in cases such as the Glasgow Airport attack and attempted car bombings in Central London.

2.2.8 The relevance of the Highway Code is an interesting issue in as much as it remains highly relevant to road users but we believe that once a person has passed their driving test the majority will never look at it again. Most police officers can give personal examples of people they have stopped who have no knowledge as to the meaning of the road signs that they have just passed or even of the speed limits applicable to types of carriageway that they are driving along.

### *2.3 Intelligent traffic management schemes, such as the scheme which has operated on the M42 and their impact on congestion and journey times*

2.3.1 We fully support the use of intelligent traffic management schemes utilising variable mandatory speed limits (VMSL) and hard shoulder running in appropriate circumstances. We are aware that evidence shows a reduction in collisions, improved journey times and a reduction in pollution. We do, however have some concerns relating to the system.

2.3.2 The system deployed on the M42 works extremely well and officers who cover that area report no problems with it. What we would contend is that the layout of the M42 at that point is urban in nature with access and egress slip-roads very close together. This means that when an incident does occur, disruption is minimised as traffic may still leave the motorway quite promptly and emergency services access the scene. Having said that, since the implementation of the scheme there has not been a fatal incident to fully test its resilience.

2.3.3 The proposed areas for extension, such as the M1 in West Yorkshire are totally different in nature. In the majority of cases there are many miles between junctions, so the potential for traffic to clear the scene of a collision is severely limited. If hard shoulder running is in operation at the time of the incident, congestion will build extremely quickly and there may be four lanes of standing traffic going back a mile in just a matter of minutes, as hard shoulder running will be implemented during peak traffic flow times.

2.3.4 This clearly provides the emergency services with a significant problem in reaching the scene of the incident due to having to negotiate the standing traffic with no hard shoulder to utilise. Delays in reaching the scene may result in serious injuries becoming fatalities. Highways Agency resources and recovery services will also face a similar problem, which may well increase scene clearance times.

2.3.5 The other practical issue facing the police is how to safely stop an offending vehicle on a managed motorway when hard shoulder running is in operation without causing danger to officers, offenders and other road users alike?

2.3.6 We also believe that it is vital that speed limits set in VMSL areas are appropriate to the prevailing traffic conditions. We have received complaints relating to the speed limits set at times on managed motorways, such as a 40mph limit for congestion, when all four lanes are running normally, with no sign of congestion.

2.3.7 This has two effects. It brings the speed limits into disrepute, potentially causing motorists to ignore them at a time when they are valid. It also criminalises motorists who are driving at a reasonable and safe speed for the prevailing road and traffic conditions but in excess of the set limit.

#### 2.4 *The effectiveness of legislative provisions for road management under the New Roads and Street Works Act 1991 and the Traffic Management Act 2004*

2.4.1 The Traffic Management Act moved the responsibility for traffic management away from the police as we had historically carried this role. We believe that responsibility is not always grasped and the police are still often expected to take responsibility for producing traffic management plans for major events or iconic venues.

2.4.2 The situation is improving and a major success has been the introduction of the Highways Agency Traffic Officers in England and the Welsh Assembly Governments Traffic Officer service in Wales. There has been significant savings in police officer time, better management of incidents/congestion and subsequently Police officers released to concentrate on denying criminals the use of the roads.

#### 2.5 *The impact of bus lanes and other aspects of road layout*

2.5.1 We have no comment to make on the impact of bus lanes.

2.5.2 Road layout goes without question, well designed junctions and roads can significantly aid traffic flow. We can cite examples including some significant redesign of junctions on the M6 which resulted in safer passage for traffic entering and leaving the motorway.

May 2011

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### **Written evidence from London Councils (ETM 54)**

London Councils welcomes the opportunity to contribute to the Committee's inquiry into Effective Road and Traffic Management. Issues relating to traffic congestion, noise and air pollution, road works and road safety are of paramount interest to our members. We are pleased to see that the Committee is taking an interest, and look forward to working with them to develop solutions that will be of benefit to the whole country, including Londoners.

London Councils would make the following points:

1. Repeated digging of the road damages the road surface. While the undertaker will reinstate the road after each dig to a certain standard, over time this will weaken the surface of the road, causing potholes and dangerous surfaces. The local highway authority, which is responsible for the safety of the road surface, cannot charge works promoters for the ongoing repair and resurfacing that will eventually be needed after all the works. We would advocate the development of a mechanism which will help highway authorities to recoup the total cost of highway works from utilities.

The New Roads and Street Works Act 1991 gives highway authorities the power (in theory) to require utility companies to contribute to the cost of resurfacing their highways to mitigate the long-term impact of repeated roadworks. Unfortunately, while the relevant section (78) is technically in force, regulations must be made to bring them into effect, and no such regulations have yet been made. At a time when local authority budgets are being squeezed ever harder, this would be an area where the Government could make a real difference at no expense to the taxpayer.

2. We are supportive of a lane rental scheme, and featured outline plans for such a scheme in our *Manifesto for Londoners*. We understand the need to target such a scheme on the most traffic sensitive roads, and accept that it would make sense to run a pilot on the Transport for London Road Network. However, in due course, we would want schemes to be available to all highway authorities, as long as certain (as yet undefined) criteria could be met.
3. We remain firmly supportive of the London Permit Scheme for Roadworks and Streetworks. At the start of 2010, 18 boroughs, plus TfL, had implemented the scheme. A further seven are awaiting approval to start, with a further two in the process of applying. In the first year of operation, there have been a number of successes, including:
  - An increase in the number of recorded days of disruption saved through joint working and collaboration.

- An increased discipline amongst highway authorities in recording their own works, providing more opportunity for collaborative working and enhanced public information.
- A reduction in the total number of works undertaken by utilities of 17%.
- Better quality of information available to make considered coordination decisions.
- Demonstrable benefits for average journey time and journey time reliability.

However, it should be noted that the scheme does not always allow councils to better coordinate works, because the notice periods involved are so short. It simply allows them to ask for some works to take place at a later date, and keeps them better informed of what is happening on their patch. While this is clearly an improvement on previous ways of working, it cannot be seen as a magic bullet—it must be part of a suite of measures used by local authorities to better manage disruption on their network. The scheme may need to be revised in due course, to see if it is possible to improve the amount of coordination that is achievable.

4. Local authorities need to find better ways of working with utility companies. The London Permit Scheme has already gone some way towards improving relations between various stakeholders by asking them to communicate better with each other. We believe this trend will continue, as promoters get used to the scheme, and further boroughs join. While we continue to advocate use of the scheme, and of introducing lane rental, we note that ever more punitive regimes may increase the division between stakeholders. It is therefore important to introduce new plans with caution, and to give all parties the opportunity to comment on and influence schemes as they develop.
5. We understand work is underway to map the underground asset base. We would suggest investing more in this area; a better record of the location of underground assets could be a relatively quick and inexpensive way of reducing the impact of roadworks. This is because utilities would have to dig fewer trenches to locate their own assets. Moreover, there is likely to be a reduction in emergency works caused by one utility inadvertently damaging the assets of another.
6. London Councils is a signatory, on behalf of our members, to the Road Management Concordat (which can be found here: <http://www.londoncouncils.gov.uk/London%20Councils/Item9.RoadManagementConcordat141010.doc>). This includes ten principles, including lane rental and use of the permit scheme, to which London's boroughs have agreed to work in order to improve conditions for all road users. Other principles include membership of the Mayor's Code of Conduct on Roadworks, use of LondonWorks to better coordinate works, a review of working hours restrictions, and better monitoring of highway assets.

We would be very happy to elaborate on any of the points raised above if that would be useful.

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