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# **APPG for Roadside Rescue and Recovery**

All Lane Running Inquiry

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## Conclusions and Recommendations

### Conclusions

1. The introduction of All Lane Running motorways to the Strategic Road Network comes at a time when roads are getting busier and busier and the risk levels are, as a consequence, increasing for recovery operators. In this context it was, and continues to be, crucial that All Lane Running be implemented in a way that ensures the safety of recovery operators, as well as the general public.
2. From a recovery operators perspective, All Lane Running motorways are not in and of themselves a bad idea; congestion of increased road usage needs to be reduced somehow, and rescue operations that take place from within an Emergency Refuge Area are more safe than traditional rescue operations taking place on a hard shoulder. If it could have been carried out in a way that maintained or improved safety of road users and recovery operators, and delivered value to the taxpayer, then the implementation of All Lane Running could have been an acceptable development.
3. But, the APPG finds the implementation of All Lane Running, which has been presented by Highways England and the Department for Transport as the natural extension of earlier 'smart motorways' but is in fact a fundamental alteration to the nature of a road, has been conducted with a shocking degree of carelessness. The necessary steps have not been taken in advance to ensure the safety of motorists and recovery operators. Many of the measures now being taken should have been in place before the roll-out of these roads commenced. This would have also cost the taxpayer less, given the high cost of retrofitting in comparison with installing the safety features during construction – and, more importantly, it would have saved lives.
4. The 3-year safety data from the M25 is to be welcomed, but there were concerns that this data from one specific All Lane Running scheme wasn't representative, and yet had been used to justify the roll-out of All Lane Running across the country. The initial 1-year safety data from 7 of 9 other existing All Lane Running schemes also show a modest improvement in safety across the system. But it is still too early to make the judgement that All Lane Running should continue to be rolled out nationally.
5. Live lane breakdowns are the situations which are central to all the problems associated with All Lane Running. The recordings of 999 calls of motorists trapped in such situations are harrowing, and they underscore the fact that there are still concerns that many motorists don't know what to do in such situations. Tragically, this situation has led to casualties amongst road users. The 38% live lane breakdown rate amongst road users is completely unacceptable. Though live lane breakdowns do occur on traditional motorways 20.43% of the time, these are nevertheless the most terrifying and dangerous situations for road

users and should be minimised at all costs. That a system is being rolled-out across the country that nearly doubles the frequency of such incidents is a public policy failure. It is reflective of their lack of focus on safety in this entire project that the Chief Executive of the agency responsible for implementing this policy was unable to produce this most important of comparisons when asked by Members of Parliament on the Transport Committee.

6. Live lane breakdowns also pose a problem for recovery operators, even if they aren't required to rescue in a live lane. The fact that some recovery operators have chosen to intervene rather than 'orbit' a stranded motorist in a live lane breakdown speaks to the impossible situation that the status quo can often leave them in. However, the APPG does not endorse this behaviour.
7. It is clear from the evidence received that Highways England do not currently have the resources and systems in place to respond to live lane breakdowns in a fast enough manner to ensure the safety of motorists and prevent recovery operators from being forced to regularly 'orbit' breakdowns. As well as the widespread implementation of Stopped Vehicle Detection, there needs to be an increase in the number of Highways England Traffic Officers on patrol at all times across the Strategic Road Network.
8. On Emergency Refuge Areas, the APPG finds the claims that spacing has no effect on the frequency of live lane breakdowns to be unconvincing. The current live lane breakdown rate of 38% on All Lane Running Motorways (as compared with 20.43% on traditional motorways) is far too high – it can only be the case that reducing spacing will reduce this figure and lead to fewer live lane breakdowns, an outcome which would benefit road users and recovery operators alike. Indeed, reducing these figures must now be an absolute priority.
9. The Stopped Vehicle Detection technology that has recently been successfully trialled on the M25 should have been present on all stretches of All Lane Running from the outset, and certainly should have been retrofitted in 2016, after a commitment was made to do so. And it should have been included in the design of all systems introduced thereafter. Highways England Chief Executive Jim O'Sullivan's admission that, had this technology been in place, a commitment that his agency made to a House of Commons Select Committee, some of those 8 people who have lost their lives on All Lane Running stretches may not have done so amounts to a gross public policy failure and a damning indictment of the agency's on-the-hoof approach to All Lane Running motorways.
10. Red X compliance was too low when All Lane Running was rolled-out, and continues to be so. But the improvements that have been made on this front are welcomed as are the measures taken to tackle non-compliance, such as information campaigns and the introduction of a £100 penalty.

11. The APPG heard conflicting reports about recovery operators' current working relationship with Highways England Traffic Officers. There was a feeling that when All Lane Running were first rolled-out there was a lack of communication as to best practice for recovery operators, but it seems that this has improved as recovery operators have become accustomed to new systems. There were also concerns raised about a lack of communication about when and where work was beginning on new stretches of All Lane Running motorways, and the effect these works would have on recovery operators, with reports of cones blocking entrance to the hard shoulder appearing without warning. If the roll-out continues, both of these issues will continue to present challenges, as more recovery operators become exposed to these roads for the first time.
12. Highways England's new *Smart Motorways Awareness for the Roadside Rescue and Recovery Industry* training course is a welcome development and should be rolled-out in partnership with as wide an array of industry bodies as is feasible, and increased dialogue between the industry and Highways England is encouraged. While this is welcome, it will have no effect on the structural problems addressing safety outlined in this report, and it is critical that these are addressed alongside increase dialogue.

## Recommendations

The roll-out of All Lane Running motorways should be halted until:

1. There is at least 3 years of safety data for each existing stretch of All Lane Running that shows an average improvement in safety on each scheme vis-a-vis a traditional motorway and a marked reduction in the rates of live lane breakdown.
2. The live lane breakdown rate is at or below the 20.43% figure calculated for traditional motorways.
3. The resources of Highways England Traffic Officers have been increased and there has been a marked improvement in the response times (currently 17 minutes 43 seconds) of Highways England Traffic Officers to live lane breakdowns.
4. All existing stretches of All Lane Running have additional Emergency Refuge Areas retrofitted such that the spacing is no more than 800m between any two Emergency Refuge Areas (which would require Highways England to more than double the number of Emergency Refuge Areas) on a stretch of All Lane Running.
5. All existing stretches of All Lane Running motorway are retrofitted fitted with Stopped Vehicle Detection systems.
6. The high rates of Red X non-compliance are another reason that the roll-out of All Lane Running motorways should be halted. Red X compliance needs to be

improved so that it is at least 98% - though total compliance with Red X signals must always be the ambition.

## Background: about the APPG and the Inquiry

The All Party Parliamentary Group (APPG) on Roadside Rescue and Recovery was formed on November 28<sup>th</sup> 2018. It is chaired by Sir Mike Penning MP. The other officers on the group are Tracey Crouch MP, John Spellar MP and Gareth Johnson MP.

The Campaign for Safer Roadside Rescue and Recovery (CSR<sup>RR</sup>)<sup>1</sup>, which was launched in September 2018 at the UK's annual Tow Show, acts as the secretariat to the APPG. The Campaign's formation was intended to mark a departure from previous attempts by the industry to address safety issues, which had been well-intentioned but characterised by disorganisation and – ultimately – failure.

The roadside rescue and recovery industry is made up of around 500 small, medium and large independent recovery operators, many of whose services are contracted out to the likes of the RAC/AA/Green Flag as part of their standard breakdown cover offer. Other operators are called on to attend larger incidents, requiring bigger vehicles and teams to clear the scene. These services are often provided on a statutory basis (i.e. they are instructed to carry out the recovery operations by emergency services). Roadside rescue and recovery technicians attend breakdowns and crash sites with the intention of removing vehicles from the site. They often work on the hard shoulder with traffic continuing in the live lane next to them.

The inquiry into All Lane Running (ALR) motorways was conducted by the APPG on the basis that ALR is a fundamental change to the nature of a major road, and hence has changed the nature of the work of recovery operators. While the main aim of the inquiry has been to shine a light on the way ALR impacts recovery operators, this report also focussed on some of the wider issues posed by ALR motorways for road users, and of Highways England's responsibility to ensure the safety of all individuals who use the nation's motorways.

In response to a call for written evidence, the APPG received a number of written submissions from a range of stakeholders addressing a series of questions. It was made clear that any evidence submitted need not be restricted to the questions asked. However, for clarity, those questions were as follows:

1. Have casualties, 'near misses' and wider safety concerns affected the businesses and groups you represent? If so, how?
2. What is the scale of safety incidents and near misses within the industry?
3. What safety measures, if any, would you recommend to address safety concerns and why?
4. What effect, if any, has the Government's roll-out of All Lane Running 'Smart' motorways had on the safety on the groups you represent?

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<sup>1</sup> More information about the campaign can be found here: <https://www.csrrr.co.uk/>

5. What measures could be taken to address any safety concerns with All Lane Running motorways?

The Stakeholders who submitted written evidence included: The AA; the RAC; Institute for Vehicle Recovery(IVR); The 'Slow Down, Move Over UK' Campaign; Recovery Industry Support Charity(RISC); National Tyre Distributors Association(NTDA); Association of Vehicle Recovery Operators(AVRO); European Rescue and Recovery Initiative(ERRI).<sup>2</sup>

This inquiry was originally scheduled to be published in conjunction with concerns about the safety of roadside rescue and recovery operators more widely, and include assessments of some of the solutions to recovery safety that have been mooted, such as the possibility of roadside rescue and recovery operators being permitted to use red flashing lights. The oral evidence session that was held on 11<sup>th</sup> of June 2019 took place on this basis. It included representatives from both the independent recovery industry and from The AA and the RAC. Those who gave evidence were:

Session 1: **Edmund King OBE**, President, The AA, **Steve Ives**, Chief Engineer, The AA, **Matt Dallaway**, Director of Operations, RAC, **Derek Muir**, Operations Manager, RAC

Session 2: **Stefan Hay**, National Tyre Distributors Association, **Nick Ovenden**, Institute of Vehicle Recovery, **Derek Firminger**, European Rescue and Recovery Initiative (ERRI)

Evidence givers responded to a series of questions about smart motorways.<sup>3</sup>

Highways England Chief Engineer Mike Wilson responded to the APPG's initial questions in a letter to Sir Mike Penning MP dated 26<sup>th</sup> June 2019<sup>4</sup>. A follow-up evidence session with Mike Wilson and other Highways England officials was planned for 9<sup>th</sup> of September 2019. This session was cancelled due to Parliament being prorogued on that day. In lieu of this session, the APPG decided to follow up with written questions to Highways England. These questions were as follows:

1. There are clearly concerns that the evidence from the M25 used to justify the roll-out of ALR nationwide isn't representative of the experience on all ALR motorways. Does Highways England and/or any other body have evidence on the safety of other stretches of ALR(possibly such as the M1, where they have been several high-profile casualties)? Does Highways England have any plans or intentions to carry out such work?
2. I believe it is right to say that Highways England have, in the past at least, claimed that having refuge areas spaced closer together than 1.5 miles offers no safety benefits, and that any reductions were being done to "reassure" road users. There may be no evidence for the claim that they are safer if spaced closer

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<sup>2</sup> <https://www.csrrr.co.uk/appg-for-roadside-rescue-and-recovery/>

<sup>3</sup> A transcript of the oral evidence session is available upon request.

<sup>4</sup> Letter available upon request

together(as Edmund King references above), but that may be because the study making the comparison has not been performed? Does Highways England have any evidence to suggest that having Emergency Refuge Areas spaced closed together(e.g. 1 mile vs 1.5 miles or 800m vs 1.5 miles) has no effect on safety? Does Highways England have any plans to carry out and/or commission such work?

3. Recovery Operators are trained to pass by and enter a form of 'orbiting' should they arrive at a breakdown on a Smart Motorway at which there is no HE presence. Some recovery operators have said that they feel this puts them in a very difficult moral position. Does HE have any statistics on how often this happens? Do you feel you have adequate resources to ensure that this happens as seldom as possible? Specifically, does HE have statistics detailing the profile of how long vehicles have been left in live lanes before being protected in some way – ie the time gap between the breakdown occurring and the HE fender vehicle or other appropriate vehicle attending? If so, we request that this information is shared with the APPG inquiry.

Highways England's responses to these questions are available upon request.<sup>5</sup> Highways England's response to the Transport Committee on 25<sup>th</sup> September 2019 also informed the report.<sup>6</sup>

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<sup>5</sup> To request any documents referenced herein, email the APPG Secretariat: [contact@csrrr.org](mailto:contact@csrrr.org)

<sup>6</sup> <https://www.parliament.uk/documents/commons-committees/transport/lilian-greenwood-to-jim-osullivan-ceo-highways-england-all%20lane%20running-27082019.pdf>



## General comment

The roll-out of ALR motorways is set against a backdrop in which casualties involving recovery operators happen far too often. It is difficult to get a concrete grasp of the scale of casualties and fatalities, since the Department for Transport do not collect data as to specific incidents affecting roadside rescue and recovery operators – and others who work on the nations roadsides, including tyre technicians. Guidance on the safe performance of roadside recovery has been published by the Health and Safety Executive (HSE). Within this guidance the HSE stated that: *“One of the trade associations estimates that there are approx. 6-8 fatalities/serious injuries every year amongst the 5000 or so RRR technicians”*.<sup>7</sup> The 6-8 figure certainly accords with the anecdotal and word-of-mouth evidence that is reported back by those on the ground in the industry.

The scale of the problem of safety more broadly across the road networks was reflected in the written evidence the APPG received. All respondents commented that concerns over safety were ubiquitous and by far and away the biggest issue facing the recovery industry. Evidence given by the RAC reflected on the fact that what is being fed back to them via the main safety focus groups is that road systems are getting busier and busier and risk levels are increasing for the recovery sector.<sup>8</sup> Evidence given by The AA suggested that while UK motorways are the safest roads to drive on (in terms of serious accidents per billion miles), they are the most dangerous to work on as a breakdown patrol or vehicle recovery operator, according to that same metric. The AA testified to at least 3 fatalities involving recovery operators within the last 18 months.<sup>9</sup>

**The introduction of All Lane Running motorways to the Strategic Road Network comes at a time when roads are getting busier and busier and the risk levels are, as a consequence, increasing for recovery operators. In this context it was, and continues to be, crucial that All Lane Running be implemented in a way that ensures the safety of recovery operators, as well as the general public.**

The introduction of ALR needs to be viewed in the context of the increasing congestion forecasted for UK roads. Traffic is forecast to increase on all roads, with the Strategic Road Network due to become particularly congested. In 2015, the Department for Transport forecast a growth in traffic of up to 60% from 2010 to 2040 on the Strategic Road Network. One scenario showed that up to 19.5% of the Strategic Road Network could become congested by 2040.<sup>10</sup>

As at the time of the 2016 Commons Transport Committee, The Department for Transport intended to address the need for more capacity by permanently converting the hard shoulder into a running lane on around 300 miles of motorway.

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<sup>7</sup> [https://www.hse.gov.uk/foi/internalops/sims/manuf/3\\_04\\_61.htm](https://www.hse.gov.uk/foi/internalops/sims/manuf/3_04_61.htm)

<sup>8</sup> <https://www.csrrr.co.uk/appg-for-roadside-rescue-and-recovery/>

<sup>9</sup> <https://www.csrrr.co.uk/appg-for-roadside-rescue-and-recovery/>

<sup>10</sup> Department for Transport, Road Traffic Forecasts 2015, March 2015, table 3.3

Since then the Department have continued to roll-out existing plans for ALR motorways, and it was recently reported in The Sunday Times<sup>11</sup> that Highways England intend to increase the amount of smart motorways from 416 Miles to 788 Miles by April 2025.

**From a recovery operators perspective, All Lane Running motorways are not in and of themselves a bad idea; congestion of increased road usage needs to be reduced somehow, and rescue operations that take place from within an Emergency Refuge Area are more safe than traditional rescue operations taking place on a hard shoulder. If it could have been carried out in a way that maintained or improved safety of road users and recovery operators, and delivered value to the taxpayer, then the implementation of All Lane Running could have been an acceptable development.**

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<sup>11</sup> <https://www.thetimes.co.uk/article/unsafe-hard-shoulder-to-be-removed-from-roads-mqrfsd8l7>

## Safety performance and live lane breakdowns

**The APPG finds the implementation of All Lane Running, which has been presented by Highways England and the Department for Transport as the natural extension of earlier ‘smart motorways’ but is in fact a fundamental alteration to the nature of a road, has been conducted with a shocking degree of carelessness. The necessary steps have not been taken in advance to ensure the safety of motorists and recovery operators. Many of the measures now being taken should have been in place before the roll-out of these roads commenced. This would have also cost the taxpayer less, given the high cost of retrofitting in comparison with installing the safety features during construction – and, more importantly, it would have saved lives.**

The APPG has heard consistent concerns that the safety data presented by Highways England in defence of ALR motorways do not accord with the experience of road users and recovery operators. Edmund King of The AA expressed concerns to the APPG that the safety data from the M25 which has been used as a pretext for the roll-out of ALR nationwide wasn't representative of other stretches of ALR: *“the M25 is not typical like the M1, M5, M6 - it is slower due to the congestion. In some stretches of the M1 the traffic is much faster flowing”*, he said. These concerns were echoed by Derek Muir of the RAC, who commented: *“We get an annual report that shows the M1, M5, M6 do have faster average speeds[than the M25]”*<sup>12</sup>

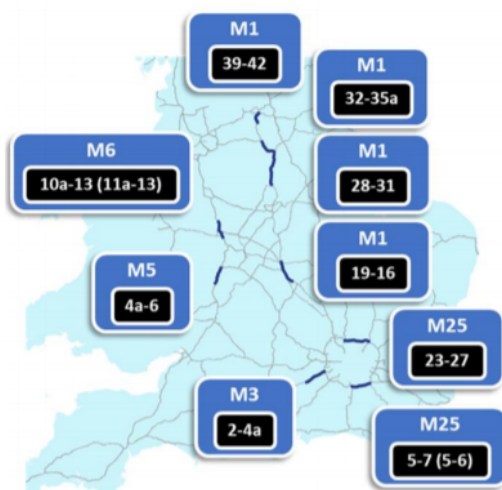
In response to these concerns, the APPG asked Highways England whether they collected, and were able to provide, safety data on the other stretches of ALR motorways. They responded by showing improvements to the 3-year safety data from the M25, as well as providing 1-year safety data for some additional stretches of ALR (coupled with safety data from the M25). This was presented as follows:

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<sup>12</sup> APPG oral evidence session 11<sup>th</sup> of June 2019, transcript available upon request

FWI rate as a traditional motorway	FWI rate after one year operating as an ALR smart motorway	FWI rate after two years operating as an ALR smart motorway	FWI rate after three years operating as an ALR smart motorway
<b>0.5</b>	<b>0.42</b>	<b>0.41</b>	<b>0.36</b>

FWI rates in the above table are expressed per hundred million vehicle miles (HMVM).



- The M25 schemes have been operational for three years;
- The other seven schemes have been operational for one year;
- The FWI rate across the nine schemes is now 0.31 per hundred million vehicle miles travelled (HMVM), compared to 0.41/HMVM when operating as traditional motorways;
- The casualty rate across the nine schemes is now 12.08/HMVM compared to 16.76/HMVM when operated as traditional motorways.

Asked by the APPG to provide the evidence for each individual stretch of road, rather than bundled together, Highways England did not respond to the APPG.<sup>13</sup>

**The 3-year safety data from the M25 is to be welcomed, but there were concerns that this data from one specific All Lane Running scheme wasn't representative, and yet had been used to justify the roll-out of All Lane Running across the country. The initial 1-year safety data from 7 of 9 other existing All Lane Running schemes also show a modest improvement in safety across the system. But it is still too early to make the judgement that All Lane Running should continue to be rolled out nationally.**

**The roll-out of All Lane Running motorways should be halted until there is at least 3 years of safety data for each existing stretch of All Lane Running that shows an average improvement in safety on each scheme vis-a-vis a traditional motorway and a marked reduction in the rates of live lane breakdown.**

Despite this data, presented purporting to show an increase in safety, there was a general sense in the written and oral evidence submitted by those groups representing independent recovery operators and motoring organisations like The AA and the RAC, that the advent of ALR motorways had made an already dangerous job more hazardous and problematic for recovery operators. All the written evidence received (excluding

<sup>13</sup> APPG Secretariat correspondence with John Harmer, Highways England Public Affairs Manager. Available upon request.

Highways England) commented that they felt ALR motorways had made recovery personnel less safe. Edmund King, President of The AA, commented that *“for our members and for the patrol men and women who work on these live lanes it’s too dangerous”*.<sup>14</sup>

There have been several high-profile casualties on ALR motorways. These have all involved live lane breakdowns – the situation in which a motorist stops in a live lane, unable to make it to an Emergency Refuge Area. It is this situation that plays in the minds of road users and unsettles the general public, who are forced to think about what they would do if they broke down and were unable to make it to a refuge area. In his response to the Transport Committee on 25 September 2019, Highways England Chief Executive Jim O’Sullivan provided the following summary of the breakdowns on All Lane Running<sup>15</sup>:

<b>Breakdown location</b>	<b>Number</b>	<b>Percentage</b>
Live lane	19,316	38%
Not live lane	28,547	56%
Not recorded	3,246	6%
<b>Total</b>	<b>51,109</b>	<b>100%</b>

Highways England have laboured the point that live lane breakdowns also occur on traditional motorways. When he appeared before the Transport Committee in 23<sup>rd</sup> October 2019<sup>16</sup>, Jim O’Sullivan was unable to provide the comparator summary for breakdowns on traditional motorways. In response to a Written Parliamentary Question by Sir Mike Penning on 21<sup>st</sup> January 2019<sup>17</sup>, Minister of State for Transport George Freeman revealed the following summary of breakdowns on traditional motorways on the Strategic Road Network:

Breakdown - live lane		Breakdown - not in live lane		
Calendar Year	Frequency	%	Frequency	%
2016	27,004	20.3%	106,134	79.7%
2017	26,060	21.0%	98,317	79.0%
2018	29,987	19.7%	122,076	80.3%
2019	27,410	21.0%	103,061	79.0%

The average live lane breakdown rate for ALR in the period 2016-2019 was 20.43%.

<sup>14</sup> APPG oral evidence session 11<sup>th</sup> of June 2019, transcript available upon request.

<sup>15</sup> <https://www.parliament.uk/documents/commons-committees/transport/jim-osullivan-ceo-highways-england-to-lilian-greenwood-all-lane-running-25092019.pdf>

<sup>16</sup> <https://parliamentlive.tv/Event/Index/f64f3547-f0b9-4b2d-a107-0347ef5a6693>

<sup>17</sup> <https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2020-01-14/3155/>

**Live lane breakdowns are the situations which are central to all the problems associated with All Lane Running. The recordings of 999 calls of motorists trapped in such situations are harrowing, and they underscore the fact that there are still concerns that many motorists don't know what to do in such situations. Tragically, this situation has led to casualties amongst road users. The 38% live lane breakdown rate amongst road users is completely unacceptable. Though live lane breakdowns do occur on traditional motorways 20.43% of the time, these are nevertheless the most terrifying and dangerous situations for road users and should be minimised at all costs. That a system is being rolled-out across the country that nearly doubles the frequency of such incidents is a public policy failure. It is reflective of their lack of focus on safety in this entire project that the Chief Executive of the agency responsible for implementing this policy was unable to produce this most important of comparisons when asked by Members of Parliament on the Transport Committee.**

**The roll-out of All Lane Running motorways should be halted until the live lane breakdown rate is at or below the 20.43% figure calculated for traditional motorways.**

In testimony from representatives of the industry, the APPG heard worrying details about the kinds of situations recovery operators find themselves in. A typical live lane breakdown was discussed. Live lane breakdowns have understandably been the focus of safety concerns the motoring public. These concerns have been fuelled by a number of high-profile fatalities. Likewise, live lane breakdowns are the major safety concern for recovery operators. Highways England have repeatedly been clear that recovery operators are never required to perform operations in a live lane.<sup>18</sup> Upon attending a breakdown, recovery operators are instructed by Highways England to wait until Highways England Traffic Officers arrive to close the lane and put in place an Impact Protection Vehicle, or until the broken down vehicle has been moved to an Emergency Refuge Area. During this time, Recovery operators are instructed to 'orbit' the breakdown (drive up and down the motorway in either direction) until Highways England Traffic Officers arrive.

The APPG heard reports from representatives of the recovery industry, and from some recovery operators themselves who wished to remain anonymous, that some drivers in this situation have used their vehicle as a 'makeshift' fender vehicle. Faced with orbiting as they watch a stranded motorist, often with several passengers and in a state of panic, and knowing that many such stranded motorists have been killed or seriously injured, some recovery operators choose to put their vehicle between the stranded motorist and the oncoming traffic. This impulse is understandable for recovery operators who see themselves as a vital emergency service. However, it is a completely unacceptable for them to be put in this position. Were an oncoming vehicle to strike the makeshift fender recovery vehicle, and, more seriously, if any parties involved were to be seriously injured, this could have severe legal implications for the recovery operator involved and the company that he or she works for. Additionally, it could create further dangers for

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<sup>18</sup> Mike Wilson letter to Sir Mike Penning MP dated 26<sup>th</sup> June 2019, available upon request

oncoming motorists. While the APPG does not in any way endorse this behaviour, it is an understandable impulse given the impossible moral situation that recovery operators orbiting breakdowns are put in.

**Live lane breakdowns also pose a problem for recovery operators, even if they aren't required to rescue in a live lane. The fact that some recovery operators have chosen to intervene rather than 'orbit' a stranded motorist in a live lane breakdown speaks to the impossible situation that the status quo can often leave them in. However, the APPG does not endorse this behaviour.**

Both for recovery operators and road users, the length of time that vehicles spend broken down in a live lane is critical to improving the safety situation on ALR motorways. The APPG asked Highways England to provide a breakdown of the response time of Highways England Traffic Officers to incidents on the Strategic Road Network. After an initial analysis, they provided the following information<sup>19</sup>:

Road type	Response time (m:s)
Standard motorway	22:00
A-roads that are patrolled by traffic officers	20:49
All lane running	17:43 (signs, signals and Red-X already set if live lane)

Data is an average between 2016-2019 or on ALR schemes from their start of operation until 2019

This showed that response times were better for ALR than for traditional motorways. This comparison, though, needs to be considered alongside the fact that live lane breakdowns are significantly more likely (roughly double) on ALR motorways<sup>20</sup>. So the response time of 17:43 minutes applies to a higher proportion of motorists than it does on a traditional motorway. Also, a live lane breakdown on a traditional motorway also has the extra space of the hard shoulder for oncoming motorists to use in the event they need to swerve at the last minute to avoid a collision.

Asked to comment if they had the capabilities and resources to respond to live lane breakdowns in a way that prevented the need for recovery operators to 'orbit' and kept the road users safe, Highways England commented:

*“The resources available to Highways England enable us to maintain the high-levels of safety we see on traditional motorways on All Lane Running schemes. We make the most of the resource we have available, with innovations such as single traffic officer crewing enabling us to provide more patrols across the Strategic Road Network. Technology on smart motorways complements the work of traffic officers and enables*

<sup>19</sup> Mike Wilson, Highways England Chief Engineer, letter to Sir Mike Penning dated 4<sup>th</sup> October 2019, available upon request.

<sup>20</sup> See Reference 17 above

*signs and signals to be set immediately to warn drivers and reduce the speed of approaching traffic.”<sup>21</sup>*

**It is clear from the evidence received that Highways England do not currently have the resources and systems in place to respond to live lane breakdowns in a fast enough manner to ensure the safety of motorists and prevent recovery operators from being forced to regularly ‘orbit’ breakdowns. As well as the widespread implementation of Stopped Vehicle Detection, there needs to be an increase in the number of Highways England Traffic Officers on patrol at all times across the Strategic Road Network.**

**The roll-out of All Lane Running motorways should be halted until the resources of Highways England Traffic Officers have been increased and there has been a marked improvement in the response times (currently 17 minutes 43 seconds) of Highways England Traffic Officers to live lane breakdowns.**

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<sup>21</sup> Mike Wilson letter to Sir Mike Penning dated 4<sup>th</sup> October 2019, available upon request.



## Emergency Refuge Area spacing

On ALR motorways, in order to give drivers a less dangerous area to stop in during an emergency if no hard shoulder is available, Emergency Refuge Areas (ERAs) are created. Since ALR was first introduced, there have been consistent concerns about the spacing between ERAs being too great. Given ERAs are playing a similar role to that played by a hard shoulder on a traditional motorway, there is an intuitive link between their prevalence and a motorist's ability to stop safely if they break down. Despite this, Highways England continue to claim that there is no relationship between ERA spacing and the number of live lane stops. In May 2019 the then roads minister, Jesse Norman MP, responded to a Written Parliamentary Question as follows:

*“Highways England undertook a comprehensive review of smart motorways and found no consistent correlation between the number of live lane stops and the spacing of emergency areas.”<sup>22</sup>*

In 2016 the Transport Committee noted that *“the space between Emergency Refuge Areas has increased through each Smart Motorways design, to the roughly 2,500m, or roughly 1.6 miles, spacing used in All Lane Running.”<sup>23</sup>* The Transport Committee heard that, at those distances and travelling at 60mph, you are 75 seconds away from a refuge. The Committee found that 75 seconds is clearly a very long time to be driving a vehicle that isn't functioning properly, making it more likely that a driver with limited ability to keep moving will stop in a live lane. At the spacing used in the M42 Active Traffic Management pilot (500–800m) – an earlier, safer design of 'smart motorway' that has been used to justify the roll out of All Lane Running nationwide – a vehicle travelling at 60mph is no more than roughly 30 seconds away from a refuge. Highways England Chief Engineer Mike Wilson told the Committee that the agency were open to change on this aspect of the design, and the Committee ultimately recommended that the Department for Transport revert to ERAs spaced at between 500m and 800m apart, as in the M42 Active Traffic Management pilot.

Despite this apparent openness at the time of the 2016 Transport Committee inquiry, Highways England's record on this issue has been appalling. In January of 2018, 18 months after the 2016 report was published, the new Transport Committee Chair for the 2017-2019 Parliament, Lilian Greenwood MP, wrote to Highways England Chief Executive Jim O'Sullivan asking for an update on the agency's efforts to reduce ERA spacing. In response Jim O'Sullivan announced Highways England would reduce the refuge area spacing from 1.5 miles to 1 mile “where practicable”, implying no retrofitting had taken place<sup>24</sup>

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<sup>22</sup> <https://www.theyworkforyou.com/wrans/?id=2019-04-29.248614.h&s=section%3Awrans+speaker%3A24827#g248614.r0>

<sup>23</sup> <https://publications.parliament.uk/pa/cm201617/cmselect/cmtrans/63/63.pdf>

<sup>24</sup> <https://www.autoexpress.co.uk/car-news/consumer-news/100156/more-smart-motorway-refuge-areas-to-be-built>

In May 2019 Sir Mike Penning MP wrote to Highways England Chief Engineer Mike Wilson expressing dismay that no retrofitting had taken place and requesting to see the evidence for Highways England's counterintuitive claim that there is no relationship between ERA spacing and live lane breakdowns.<sup>25</sup> Highways England's response was as follows:

*"There is no evidence to suggest that All Lane Running smart motorways with emergency areas spaced 1.5 miles apart are less safe for road users or workers than traditional motorways. However, Highways England have committed to retrofit a small number of additional emergency areas on existing All Lane Running smart motorways, to provide greater reassurance to road users. We have identified locations where we will add additional emergency areas and plan to commence delivery in 2020. On future All Lane Running smart motorways (those entering the construction phase from 2020), we will space emergency areas one mile apart, where practicable, again to provide greater reassurance to road users. These emergency areas will have enhanced visibility and signage."*<sup>26</sup>

In a later response to a follow up request, Highways England commented:

*"To increase customer confidence of reaching a place to stop in an emergency, we took the decision to reduce the maximum spacing to 1 mile on future schemes to be constructed from 2020 onwards. It should be noted that whilst 1.5 miles (2.5km) is the maximum spacing, the average spacing on all ALR schemes to date is approximately 1.2 miles (2km)."*<sup>27</sup>

There are several aspects of these responses that are notable. Firstly, the claim that there is no relationship between ERA spacing and live lane breakdowns is in tension with their already reneged upon commitment to retrofit existing stretches, hence the strange proposition that they are undertaking expensive retrofitting for the purposes of 'providing greater reassurance to road users', rather than, as would seem to make more sense, increasing safety and reducing the number of live lane breakdowns. Secondly, the claim here that *"there is no evidence to suggest that All Lane Running smart motorways with emergency areas spaced 1.5 miles apart are less safe for road users or workers than traditional motorways"* is very different from the claim made earlier by then roads minister Jesse Norman MP that Highways England had *"found no consistent correlation between the number of live lane stops and the spacing of emergency areas."* The former is a comparison with traditional motorways whereas the latter is a specific claim about the effect of spacing on live lane breakdowns.

This confusion could have been avoided if Highways England had provided the evidence that supported these claims. It was also notable that they did not, despite it being

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<sup>25</sup> Letter from Sir Mike Penning MP to Mike Wilson dated 13<sup>th</sup> May 2019, available upon request.

<sup>26</sup> Mike Wilson letter to Sir Mike Penning MP dated 26<sup>th</sup> June 2019, available upon request.

<sup>27</sup> Mike Wilson letter to Sir Mike Penning dated 4<sup>th</sup> October 2019, available upon request.

requested. Following up this request, the APPG repeatedly requested the evidence from Highways England; no response was forthcoming.<sup>28</sup>

The APPG heard, both in written and oral evidence, widespread concern that ERAs were too far apart, and that they needed to be significantly closer together if the number of live lane breakdowns was to be reduced. This was brought out clearly in testimony by Edmund King of The AA, who used the analogy of bin usage at Disneyland:

*“Part of it is psychological: if you can see the layby you will get there. This is Walt Disney theory on litter bins. At Disneyland if you could see a trash bin in the distance people are 98% more likely to put their litter in the bin. If they couldn’t see it, they would drop it. It is the same on motorways. If you can see that layby – whether you’ve got smoke coming out of your vehicle or your vehicle has a flat tire – you will get to the layby.”<sup>29</sup>*

Indeed, it would seem that the claim that ERA spacing has no bearing on live lane breakdown frequency is unconvincing, and falls apart when held up to scrutiny. The number of live lane breakdowns on ALR is almost double that on traditional motorways with a hard shoulder. If increasing the number of ERAs can be seen to be replicating the effects of having a hard shoulder – i.e. somewhere in road users’ field of vision that they know will be safer than stopping in a live lane – then this would surely reduce the number of live lane breakdowns. However, given Highways England were unable or unwilling to produce the evidence behind their claims, the APPG has been unable to make a fair and balanced assessment of them.

**On Emergency Refuge Areas, the APPG finds the claims that spacing has no effect on the frequency of live lane breakdowns to be unconvincing. The current live lane breakdown rate of 38% on All Lane Running Motorways(as compared with 20.43% on traditional motorways) is far too high – it can only be the case that reducing spacing will reduce this figure and lead to fewer live lane breakdowns, an outcome which would benefit road users and recovery operators alike. Indeed, reducing these figures must now be an absolute priority.**

**The roll-out of All Lane Running motorways should be halted until all existing stretches of All Lane Running have additional Emergency Refuge Areas retrofitted such that the spacing is no more than 800m between any two Emergency Refuge Areas(which would require Highways England to more than double the number of Emergency Refuge Areas) on a stretch of All Lane Running.**

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<sup>28</sup> APPG Secretariat correspondence with John Harmer, Highways England Public Affairs Manager. Available upon request.

<sup>29</sup> APPG oral evidence session 11<sup>th</sup> of June 2019, transcript available upon request.

## Stopped Vehicle Detection

In 2016 Highways England told the House of Commons Transport Committee that a new Stopped Vehicle Detection (SVD) system had been created, which seeks to address the limitations of the other detection technology, by using radar technology.<sup>30</sup> Highways England told the Committee at the time that it intended to include it in all ALR schemes thereafter, and that it would be retrofitted to existing schemes.

Once again, Highways England's record on this front has been incredibly poor. The Transport Committee wrote to Highways England on 27<sup>th</sup> August 2019 asking for the following:

*An analysis of where stopped detection(SVD) systems have been deployed and how well they are working, along with a description of any plans HE[Highways England] has for further deployment of such systems, how much they will cost and what the timeframe for deployment is.*<sup>31</sup>

As part of their response, Highways England wrote:

*"As part of our commitment to create a safe driving environment where people feel safe, we have developed a stopped vehicle detection (SVD) system to automatically detect individual stationary stopped vehicles on the carriageway, which enables us to set speed limits and lane closures more quickly to warn oncoming drivers and protect the stranded motorist.*

*Following initial trials, we have deployed a radar-based SVD system on M25 J5-6 and M25 J23-27, which covers all 25 miles of ALR on the M25. Evaluation of the system demonstrates it is working as expected with a detection rate for single stopped vehicles of 90%. We have also found that it can be a valuable extra tool to help spot non-breakdown related incidents more quickly.*

*We are therefore progressing with the roll-out of this system on M3 J2-4a, due to become operational next year. The capability to detect stopped vehicles is also being designed into other ALR schemes which are scheduled be delivered between Autumn 2021 and Autumn 2022 – A1(M) J6-8, M3 J9-14 and M25 J10-16.*

*The cost of deploying the radar-based system on operational schemes to date has been £150,000 -£200,000 per kilometre; however, the costs and the timescales would be different depending on the type of technology used, and on schemes that the system is incorporated in to the design and not retrofitted. We are planning to incorporate SVD in all future smart motorway schemes as a standard part of the design.*

*At the same time, we are exploring how we can provide the same benefits on all existing All Lane Running sections. This could potentially be done via alternative SVD*

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<sup>30</sup> <https://publications.parliament.uk/pa/cm201617/cmselect/cmtrans/63/63.pdf>

<sup>31</sup> <https://www.parliament.uk/documents/commons-committees/transport/lilian-greenwood-to-jim-osullivan-ceo-highways-england-all%20lane%20running-27082019.pdf>

*technologies. These have the potential to be more cost effective, can be implemented more quickly, and could eventually be deployed across the whole Strategic Road Network; as live lane stops are not unique to smart motorways.”<sup>32</sup>*

As with the issue of ERA spacing, the mis-match between the commitments made to the Transport Committee in 2016 and what has taken place since is breath-taking. Despite committing to adding Stopped Vehicle Detection to all ALR schemes both future, and existing ones via retrofitting, at the time of their response in September 2019, Highways England had only implemented Stopped Vehicle Detection on 25 miles of the ALR network that now spans more than 400 miles of road, having rolled out new ALR schemes in that period without Stopped Vehicle Detection. As is noted elsewhere in this report in relation to ERA spacing, the failure to fit this technology first time around will cost the taxpayer dearly, given the relative cost of retrofitting as outlined in the response above, not to mention, of course, the lives it may have cost in the process. Notably and remarkably, Highways England have also jettisoned the commitment to retrofit Stopped Vehicle Detection technology to existing stretches of ALR.

During a Transport Committee oral evidence session with Highways England on 23<sup>rd</sup> October 2019, Committee Chair Lilian Greenwood pressed Highways England Chief Executive Jim O’Sullivan on whether this failure to put Stopped Vehicle Detection in place across the network had had an effect on safety:

*“If the Stopped Vehicle Detection had been place on all schemes how many deaths would have been prevented?”<sup>33</sup>*

Jim O’Sullivan responded:

*“A number of them. It’s a hypothetical question that’s impossible to quantify. A number of these accidents have happened very quickly – I think one of them happened in 17 seconds. Of the 8 fatalities, undoubtedly one or two might have been avoided. But not all of them would.”<sup>34</sup>*

This was an honest but damning answer. Jim O’Sullivan admitted that, had Highways England met a commitment that the agency he leads made to a House of Commons Select Committee, then some of those who have tragically lost their lives would still be with us today.

**The Stopped Vehicle Detection technology that has recently been successfully trialled on the M25 should have been present on all stretches of All Lane Running from the outset, and certainly should have been retrofitted in 2016, after a commitment was made to do so. And it should have been included in the design of all systems introduced thereafter. Highways England Chief Executive Jim O’Sullivan’s admission that, had this technology been in place, a commitment that**

<sup>32</sup> <https://www.parliament.uk/documents/commons-committees/transport/jim-osullivan-ceo-highways-england-to-lilian-greenwood-all-lane-running-25092019.pdf>

<sup>33</sup> <https://parliamentlive.tv/Event/Index/f64f3547-f0b9-4b2d-a107-0347ef5a6693>

<sup>34</sup> <https://parliamentlive.tv/Event/Index/f64f3547-f0b9-4b2d-a107-0347ef5a6693>

**his agency made to a House of Commons Select Committee, some of those 8 people who have lost their lives on All Lane Running stretches may not have done so amounts to a gross public policy failure and a damning indictment of the agency's on-the-hoof approach to All Lane Running motorways.**

**The roll-out of All Lane Running motorways should be halted until all existing stretches of All Lane Running motorway are retrofitted fitted with Stopped Vehicle Detection systems.**

## Red X compliance

Red X signals are displayed on the overhead gantries when a live lane breakdown is detected. They are the only protection afforded to a stranded motorist against being struck by an oncoming vehicle in the period before Highways England Traffic Officers arrive at the scene of the breakdown. It has therefore been of ongoing concern that compliance with Red X signals amongst road users has been poor.

In 2016 the Transport Committee found data from the M25 evaluations to have shown a shocking degree of non-compliance. Both evaluations showed 8% noncompliance of these signals. An average of 4 vehicles per minute during every Red X event were recorded not complying with the signal.

The Committee concluded:

*"Poor compliance with Red X signals is a grave concern that not only puts motorists at risk, but also places vehicle recovery operators, emergency services, and traffic officers in harm's way. A non-compliance rate of 8% is unacceptable. The Department should continue to publish figures of Red X compliance on existing All Lane Running schemes (and Smart Motorway schemes more generally), and needs to show significant improvement in this area. All Lane Running cannot be considered to be safe with such dangerous levels of non-compliance with Red X signals."<sup>35</sup>*

Subsequent data has been released in the form of the M25 third year evaluation report in 2018<sup>36</sup>. Highways England found that compliance with Red X as a percentage of total flow was 94%, which appears to show a worsening from the 96% in the Yr2 After period, but still a slight improvement from the 93% in the Yr1 After period. But non-compliance of 6% is still far too high.

The written evidence submitted to the APPG by The AA and the RAC both raised the issue of Red X compliance. Research conducted by the RAC in January 2019 found that 1/5<sup>th</sup> of drivers had disobeyed the Red X signal over the past year.<sup>37</sup> Similarly, during the

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<sup>35</sup> <https://publications.parliament.uk/pa/cm201617/cmselect/cmtrans/63/63.pdf>

<sup>36</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/725599/M25\\_J23-27\\_SMALR\\_Monitoring\\_3\\_Year\\_Report\\_v2.0.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/725599/M25_J23-27_SMALR_Monitoring_3_Year_Report_v2.0.pdf)

<sup>37</sup> <https://www.rac.co.uk/drive/news/motoring-news/fifth-of-drivers-ignore-smart-motorway-red-x/>

oral evidence session, there were concerns raised about Red X compliance. Nick Ovenden of the Institute for Vehicle Recovery commented on a possible solution:

*“One of the things that was touched on earlier was to the hesitancy for Red Xs. So, we currently have this speed awareness course, if you get caught speeding you have to go in and do it. I went and did speed awareness and actually it was quite good. And I think for a week it slows you down. If we were to have – and I don’t know how it would get done – but if the penalty for going through a Red X is an awareness course that you have to go on, that might be the first step to getting people more aware of what a Red X actually means.”<sup>38</sup>*

The APPG notes that welcome steps have been taken since with a view to improving Red X compliance. On June 10<sup>th</sup> 2019 the law was changed so that drivers not complying with a Red X signal could be fined £100 and incur penalty points.<sup>39</sup> This a welcome development and hopefully will be reflected in improved compliance.

Similarly Highways England have committed to information campaigns to help boost awareness of Red X’s and what they mean, as well as to better inform drivers as to how to drive on ALR motorways more broadly.<sup>40</sup> Once again, this a welcome development and hopefully will be reflected in improved compliance.

**Red X compliance was too low when All Lane Running was rolled-out, and continues to be so. But the improvements that have been made on this front are welcomed as are the measures taken to tackle non-compliance, such as information campaigns and the introduction of a £100 penalty.**

**The high rates of Red X non-compliance are another reason that the roll-out of All Lane Running motorways should be halted. Red X compliance needs to be improved so that it is at least 98% - though total compliance with Red X signals must always be the ambition.**

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<sup>38</sup> APPG oral evidence session 11<sup>th</sup> of June 2019, transcript available upon request.

<sup>39</sup> <https://www.thisismoney.co.uk/money/cars/article-7123635/Motorists-fined-100-ignore-smart-motorway-Red-X-signs.html>

<sup>40</sup> Mike Wilson letter to Sir Mike Penning MP dated 26<sup>th</sup> June 2019, available upon request.

## Highways England Traffic Officers (HETOs) and the recovery industry

The APPG heard conflicting reports of the working relationship between Highways England Traffic Officers (HETOs) and the recovery industry on the ground. On the one hand, Steve Ives from The AA told the APPG:

*“To be fair to Highways England, where it is their section of motorway, be it a smart motorway or a normal one, they are pretty good, in my experience, in working with us. Doing everything electronically, even if one of our guys wants to tow something out of an ERA, they will close the lane, they will work with us on the cameras, they will put the Red X light.”<sup>41</sup>*

But there was also widespread reports of miscommunication, or a lack of communication, between Highways England Traffic Officers and recovery personnel who have been called to attend a live lane breakdown. Derek Firminger of the European Rescue and Recovery Initiative commented that while the recovery industry had formed a good relationship with Highways England on ALR motorways that *“sounds rosy while you sit around the table and talk about the procedures that can use and should use”<sup>42</sup>* it was a different story when it came to actually communication between recovery operators and Highways England Traffic Officers about when they would arrive at breakdowns. The APPG heard that a lack of communication between the groups is what has led to situations where recovery operators are forced to ‘orbit’ a live lane breakdown, which is problematic for the many reasons detailed above.

There were also concerns about a lack of communication from Highways England Traffic Officers to recovery operators about where, when and how new stretches of ALR were going to be reduced. The APPG saw video evidence of a situation in which Highways England had put cones along the carriageway of a soon to be removed section of hard shoulder on the M4.<sup>43</sup> This development had not been communicated to recovery operators in the area, and an operator was forced to orbit a motorist who was stranded on the hard shoulder for more than an hour, unable to perform recovery as the cones prevented access to the hard shoulder.

Though the reality on the ground with Highways England Traffic Officers may sometimes be different, for their part, at a senior level Highways England have shown engagement to work with the recovery industry. This was evident in their efforts to establish the Smart Motorways Awareness for the Roadside Rescue and Recovery Industry course – a training programme delivered by Network Training Partnership

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<sup>41</sup> APPG oral evidence session 11<sup>th</sup> of June 2019, transcript available upon request.

<sup>42</sup> APPG oral evidence session 11<sup>th</sup> of June 2019, transcript available upon request.

<sup>43</sup> Video available upon request



(NTP) designed to provide practical, relevant training to identify safe working practices when attending breakdowns or collisions on the smart motorway network.<sup>44</sup>

**The APPG heard conflicting reports about recovery operators' current working relationship with Highways England Traffic Officers. There was a feeling that when All Lane Running were first rolled-out there was a lack of communication as to best practice for recovery operators, but it seems that this has improved as recovery operators have become accustomed to new systems. There were also concerns raised about a lack of communication about when and where work was beginning on new stretches of All Lane Running motorways, and the effect these works would have on recovery operators, with reports of cones blocking entrance to the hard shoulder appearing without warning. If the roll-out continues, both of these issues will continue to present challenges, as more recovery operators become exposed to these roads for the first time.**

**Highways England's new *Smart Motorways Awareness for the Roadside Rescue and Recovery Industry* training course is a welcome development and should be rolled-out in partnership with as wide an array of industry bodies as is feasible, and increased dialogue between the industry and Highways England is encouraged. While this is welcome, it will have no effect on the structural problems addressing safety outlined in this report, and it is critical that these are addressed alongside increase dialogue.**

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<sup>44</sup> <https://www.fleetnews.co.uk/news/fleet-industry-news/2019/09/12/smart-motorway-training-for-roadside-recovery-industry>



## **APPG for Roadside Rescue and Recovery**

All Lane Running Inquiry