

Are we on the right road?

Improving the road user experience of diversions

October 2024





Introduction

Being diverted away from your intended route, often late at night and perhaps in unfamiliar territory, is when roadworks present potentially the greatest challenge for road users. Think about the panic that you'll get lost 'in the middle of nowhere'; if you were banking on being home in an hour to take medicine; or if you are a coach or lorry driver, perhaps not permitted to use satnav, coming across a diversion you weren't expecting.

Management of roadworks scores poorly in our [Strategic Roads User Survey](#), which measures satisfaction with journeys using the motorways and major 'A' roads managed by National Highways. Satisfaction with this aspect of user experience stands at 48 per cent in the 12 months to July 2024, compared with 71 per cent for satisfaction with the journey overall.

As part of Transport Focus business plan activity to improve road user satisfaction when encountering roadworks, we have conducted a deep dive into experiences when diverted off an intended route. We used a blend of qualitative research and 'mystery shopper' recorded journeys. Among other things, we explored what road users do when there is a diversion; how they feel and what they would like National Highways to do differently.

This report summarises the research findings and Transport Focus' conclusions and recommendations. We know that addressing some of



our recommendations will require a change of mindset; simply being compliant with signs rules is not enough. And it may be that the rules themselves need refreshing to place greater emphasis on meeting road user needs when it comes to diversion signage. What can National Highways learn from other countries about diversions on strategic roads? Who does it best? What is different about what they do?

We are working with National Highways in the East of England using our findings to help the organisation take further steps to minimise the frustrations and difficulties road users have told us about. It's great that enthusiastic, passionate people in National Highways' front-line teams have committed to work with us to champion and trial initiatives to improve user experience.

While our in-depth work is in the East of England, we expect that many challenges, and their solutions or mitigations will be common across the country. We therefore envisage that the good practice that results can be adopted throughout National Highways as it updates its policies and guidance documents. We will monitor progress and expect to see the Strategic Roads User Survey showing higher satisfaction with roadworks management in due course.

Summary of conclusions

The journey experience you have if diverted off your intended route is never going to be perfect. However, this research shows that there are areas where National Highways could do better in ensuring that disrupted journeys are smoother, eliminating as much stress and anxiety as possible. Communication is often key to this.

National Highways' goals should be:

- That there is widespread awareness when roadworks will result in a diversion, giving people the option to defer travel, take a different route or simply be prepared – mentally and practically.
- That those unaware of the closure are warned on approach and provided with information needed to proceed confidently with clear expectations about what lies ahead.
- That once on the diversion route road users have confidence navigating it, including at junctions, and are never left in doubt that they are heading in the right direction.



Context

Most road users find out about diversions on the day or during the journey. Some check social media or their satnav before setting out to establish if there are delays or diversions, but typically people don't.



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I use Google Maps on my phone most of the time. Even if I know where I'm going, I still put it on because I want to see my ETA. If there's any disruption, then maybe I take another route. So I normally put satnav, the Google Maps, on before I leave just to check and then periodically, I'll use it if I need to.

Business/Professional, Frequent

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“

On Facebook there are local groups, like in Wellingborough, Northampton ... they will pop up and people will put on there, 'Don't go on the A45', 'diversion' or 'traffic here' etc. So that's quite good. So I'll have a quick flip through before I get up in the morning and if it pops up you think, 'Oh, God, I'll avoid the A45 now because you can't get through this way or that way.'

Frequent leisure road user

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Many people now routinely use satnav, even for familiar journeys, as it provides an estimated time of arrival and traffic alerts. However, National Highways must not assume that everybody is able, willing or permitted to use satnav and, consciously or otherwise, reduce its focus on communicating effectively at the roadside. The research shows that those using satnav tend to trust it and their own local knowledge more than diversion signs: they are not confident that signs relate to a currently active diversion and/or are in the right place. They also tend not to be confident that the diversion route is the most direct: trusting their satnav to find the best route, with the added advantage of being able to see it in full, along with traffic conditions.

“ So the diversion might take you one way, and everyone might follow that road diversion, but then you’re going to get traffic because everybody’s taking that diversion. So the satnav will pick it up and say, ‘Oh that’s not the best route’ and take you an alternative way and that’s probably going to be faster. So I’ll probably take that route nine times out of ten. ”

Infrequent leisure road user





What did road users tell us?

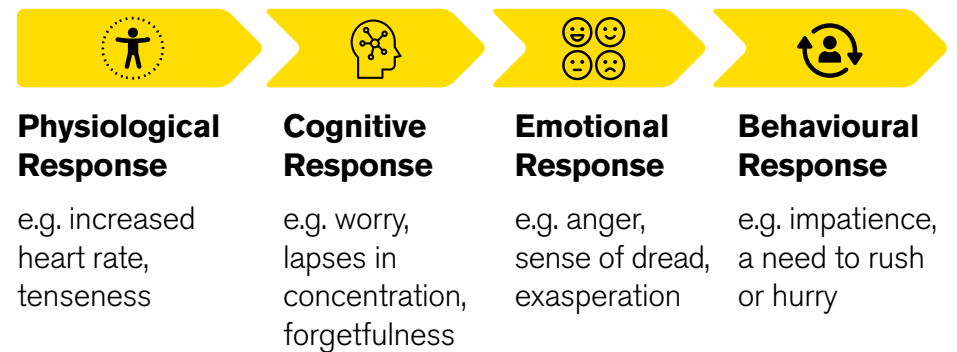
Overall attitude to roadworks and diversions

Road users understand that roads need to be maintained and the network developed, so they see roadworks and related diversions as annoying but necessary. The big exception to this is when there are delays resulting from roadworks but there is no visible work going on. Road users find this particularly irritating, seeing it as ‘taking advantage’ of their acceptance that the work is needed, fuelling mistrust and a sense that the road user is not at the heart of planning.

But how people feel when asked in a research environment is not necessarily the same as they feel when they are diverted when driving. Most road users initially feel frustrated resignation when they encounter a diversion, as well as nervousness and trepidation as to what lies ahead. Will they be able to follow the signs, or will they get lost? Will the roads on the diversion be easy to navigate? Will there be somewhere to stop for fuel or refreshment if needed? How much time will they lose? Routine use of satnav, which helps show alternative routes and build confidence, can also add to confusion if the suggested route is different to the official signed diversion.

Overall, road users can feel overwhelmed and exhibit stress responses in the moment, as shown below. Therefore, although road surface quality and concerns about other people’s driving are greater

frustrations, making the experience of roadworks and associated diversions as painless as possible is clearly desirable.



“ It’s a thankless task, road-planning; roadworks have to be done and we’d only moan if they weren’t! ”
Disabled driver

“ A lot of times, you see miles of roadworks but there’s nothing happening. It just gets quite frustrating. ”
Frequent business/professional road user

Official diversion routes

Road users tend not to have confidence in official diversion routes, suspecting them not to be the quickest way of getting past the roadworks. They prefer to use local knowledge or satnav to find what they think will be the best route. Looking beyond the fact that a diversion is inherently a pain, problems cited tended to relate to the volume of traffic being diverted causing congestion on the alternative route. In some cases frustration is exacerbated by a perception that adjustment to traffic light phasing would have lessened the problem.

“ The diversion route in itself was fine, but the traffic was pretty heavy. And of course there was a boy racer ‘car-hopping’ one vehicle at a time. I could see him in my rear-view mirror and thought ‘what a p****er.’ ”

Frequent leisure driver

If a diversion looks like it’s sending me in a direction that I’m not as sure about, I think that with local knowledge I can actually do something. I think very often that the diversions, because lorries could be involved, they plan in a certain way to avoid built-up areas, or smaller villages. I think that’s where local knowledge can make life a lot easier, and you can create a shorter diversion for yourself. ”

Frequent business/professional driver

“ Overall there were no real pinch points, but I do remember sitting at a set of lights watching no traffic at all coming out of a seemingly quiet sideroad while we all queued at a red light! ”

Frequent business/professional driver

Diversion signage

Road users lack confidence in diversion route signage. They fear yellow and black signs may be left over from earlier roadworks or are not showing because they have been knocked or blown over. Although recognising that they are likely to cost more, digital signs are preferred because they are perceived as more likely to be accurate.

Issues that became apparent from the research include:

- That symbols used to show the alternative route to follow (squares, diamonds and circles) are not widely understood by road users yet are widely used by National Highways.
- That attention to detail is crucial in signing a diversion route. A missing, obscured or ambiguously placed sign can cause confusion that undermines user confidence at a junction or introduces doubt that you are going the right way, even if you are.
- That road users can 'come upon' a diversion with almost no advance warning at the roadside.
- That using symbols, abbreviations (such as W for westbound) and simply 'diverted traffic' may allow for smaller signs, but road users would have greater confidence if diversion signs referred to places. In particular, where there is potential to head in the wrong direction, for example, rather than M25 (W), say 'M25 Heathrow' to avoid road

users needing to consider at a point of already heightened cognitive load 'what is this W?' and/or 'do I want to be going west?'

One mystery shopper making a journey after dark in Norfolk could not fathom where they should be going when diverted off the A11, despite repeated attempts. They remained relatively relaxed, partly because this was an artificial situation, but said they would have been 'tearing their hair out' if they had been trying to get to an appointment or meeting.

It is clear that there is room for improvement in this area, including thoughtfully placed advance notice signs making it crystal clear which bit of road will be closed and when.

“

This was mind-boggling. There's probably a dashcam video of me ringing my partner going, 'I'm not being stupid! I swear to God, I literally pulled off the junction, turned right, went to a roundabout. I think I went all the way around it, then followed it all the way around to the other side and it said 'Diversion' with the arrow and took me back onto the A11, but the opposite side.

”

Car driver, A11 Diversion, Night time drive

Overlapping diversions

One of the most problematic situations is where there are multiple diversions on the same route. It creates confusion, raises anxiety and risks that road users follow the wrong diversion, not least when faced with multiple different symbols at the same junction. It is also seen as evidence of lack of planning and joined up thinking.

One of our mystery shoppers encountered a diversion off the A52 near Nottingham with signs showing 'diverted traffic' in both directions, with nothing to indicate which option was for which destination. Another said:

“ Around Leicester when I was coming up from Daventry up the M1, I think it was around Junction 20, they were diverting you off around Leicester and you come into a traffic island and it'd say, 'diverted traffic left' and 'diverted traffic right'. Now I was thinking, 'Which way do I go?' There were two or three diversions running and overlapping - I found it very confusing. ”

Frequent business/professional road user





Needs by road user type

Different road users have different needs when it comes to diversions.

Lorry drivers

One of the most important things for lorry drivers is that the diversion route is suitable for large vehicles, in particular without height or width restrictions.

Lorry drivers are more likely to follow the official diversion route than others because there are risks for them and their employer if they choose a route that turns out not to be suitable. Lorry drivers want signage to indicate that a route is suitable for lorries.

“ You don’t want to risk silly things ... if I’m in a Class One vehicle and my wheels hit a wet verge, the whole truck could sink or go over; if a sign says, ‘don’t do it’, you don’t do it in a works vehicle. You’re an ambassador for the company, it has your company’s name on the side of it, the last thing I want is to damage the reputation of the company and have my name next to it. Realistically as a driver, if you do something wrong, you’re no longer a driver, you’re sacked. ”

Frequent HGV driver



Disabled road users

Some disabled road users need to plan their journeys meticulously, to manage energy levels, take medicine at regular intervals and so on. Encountering a diversion which disarranges their plan can be stressful and result in significant impact on them.



For some disabled road users, it can be essential to know how long the diversion will take and, particularly on longer diversions, whether there are places to stop to rest, eat or use the toilet. This is regardless of whether there was a stopping point on the normal route, given the inevitably increased journey time.

Simply wondering if there is somewhere to stop can add to their stress. Additionally, some disabled road users feel vulnerable so want to know that the alternative route is safe, well-lit and easy to navigate.

“ Whenever they’re planning diversions, if they consider disabled groups, I mean get them round the table and get some advice, that would be really helpful. At least we would know all the research has been done before we went out; I mean at least 4% to 5% of people are disabled. We need facilities put in place more than anything, a place for people with bladder problems like myself when I’m driving. I need to stop at least every 45 minutes otherwise I would struggle. ”

Disabled driver

Motorcyclists

Motorbike riders are particularly at risk from potholes so are likely to be more understanding of the need to repair roads. But they are also nervous about the quality and condition of diversion routes and would like to see signs flagging risks to them.

“

I get really nervous riding my motorbike down backroads. Not because they're narrow or dark, but because of the roads; you just don't know what's under a puddle and that can be disastrous.

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Frequent leisure road user





Issues explored with road users

In addition to the experience making a diverted journey, we explored broader policy questions about diversions.

Sufficient notice

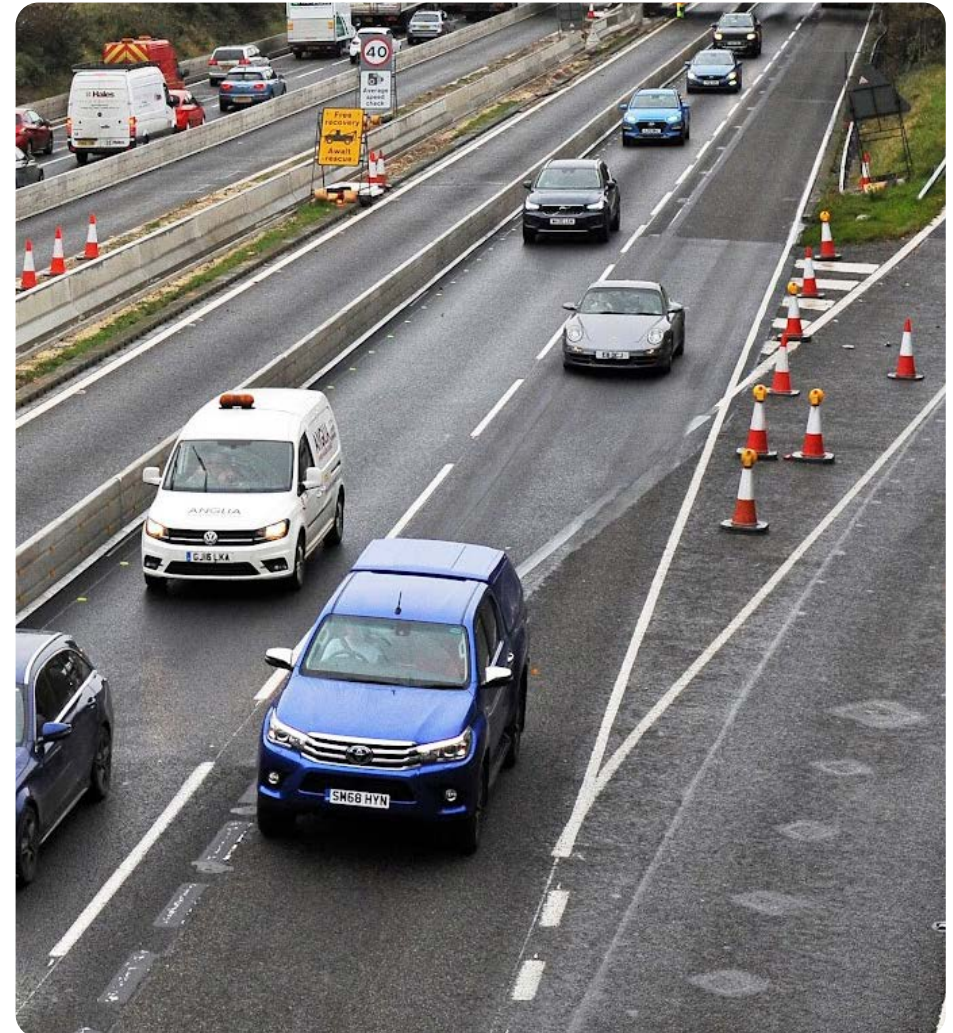
Road users want advanced notice of diversions, with information provided four weeks ahead being mentioned. Some would be happy with less notice: they will simply do what their satnav tells them on the day.

“ I think about four weeks is about right. It's quite nice to drive by the signs and think, 'Oh on the 18th the sh*t's going to hit the fan. The road's going to be closed from this date to this date.' ”

Infrequent leisure driver

“ One day before is all I would need. No earlier than that. Again, it's just personal circumstances because I'm making so many journeys. A day before so that it's fresh in the mind. Any earlier and I'll just forget. ”

Frequent business/professional road user



Timing and duration of closures

There was little consensus about the best time to close a road completely. The research explored the potential trade-offs – weekdays versus weekends and day versus night – and road users' views tended to depend on the circumstances.

Broadly speaking, most prefer overnight closures where possible, and would rather a longer series of overnight closures than a shorter overall period including daytime closures. Understandably, those who rely on motorways and major 'A' roads for work prefer weekend closures, while others resent losing leisure time to roadworks.

“ I feel a little bit relaxed taking diversions on the weekends as I don't have to be at work, so if it takes me an extra 10 to 15 minutes then it's not a problem... if I'm trying to get to a meeting or to the airport, which is a really tight timeframe, it gets the anxiety going a little bit. ”

Frequent business/professional driver



Delays on the usual route versus a diversion

For many there is value in staying on the road they know, even with lane closures that cause delays. This avoids the stress and worry of being diverted onto an unfamiliar route.

However, the overall feeling was that a full closure can be acceptable if there is a suitable alternative route, and this should be assessed case by case. A few road users would prefer a longer, intense period of total closure over a series of seemingly never-ending short closures.

“ I think that depends to a large extent on geography actually, because I think some situations lend themselves to that sort of complete closure better than others. If say it's a situation where they've got to close the road... for a whole weekend and there's only one alternative, I think that that could become easily problematic. So I think something like that has to be judged on a case-by-case basis. ”

Frequent business/professional driver





Recommendations

In light of this research and other insight, Transport Focus recommends the following.

Deepening awareness

National Highways should:

- Embrace the following goals:
 - › That there is widespread awareness when roadworks will result in a diversion, giving people the option to defer travel, take a different route or simply be prepared - mentally and practically.
 - › That those unaware of the closure are warned on approach and provided with information needed to proceed confidently with clear expectations about what lies ahead.
 - › That once on the diversion route road users have confidence navigating it, including at junctions, and are never left in doubt that they are heading in the right direction.
- Continue to drive up the accuracy of the full road closure information it publishes. Huge strides have been made in improving the seven-day 'full road closure' information accuracy. However, some National Highways regions perform better than others and a further push is needed to achieve the 90 per cent target overall.
- Continue to enhance the data it provides to downstream systems, in particular satnav and mapping providers, to enable them to best provide end users with the information they need to plan and undertake their journey.
- Further develop its engagement with freight and bus/coach companies regularly using a route that needs to be closed. The purpose is two-fold: first, that their needs can be considered in planning the closure and resulting diversion and, second, that they know exactly what is happening and can plan accordingly.
- Develop 'this road will be closed on' signs and revise its instructions about sign positioning to make sure they can be read easily at 70 mph and refer unambiguously to either the main carriageway or the slip road.
- Investigate use of variable message signs to warn road users returning the same day that the road will be closed in the opposite direction later in the day.
- Trial provision of accurate 'full road closure' information, appropriately caveated as 'subject to change', at least four weeks in advance.

Information approaching a diversion

National Highways should:

- Develop a programme to ensure users approaching a full road closure know that there is a planned diversion; know how many miles and approximately how much time will be added to their journey; and have information they need about 'services' to judge where to stop if they require fuel, food or rest.
- Ensure signs make it clear to lorry drivers if the diversion is or isn't suitable for them, clearly indicating a different route for lorries if that is the case.
- Ensure the diversion route for cyclists is clear when they are temporarily banned from an all-purpose trunk road because of roadworks.



Confidence navigating the diversion

National Highways should:

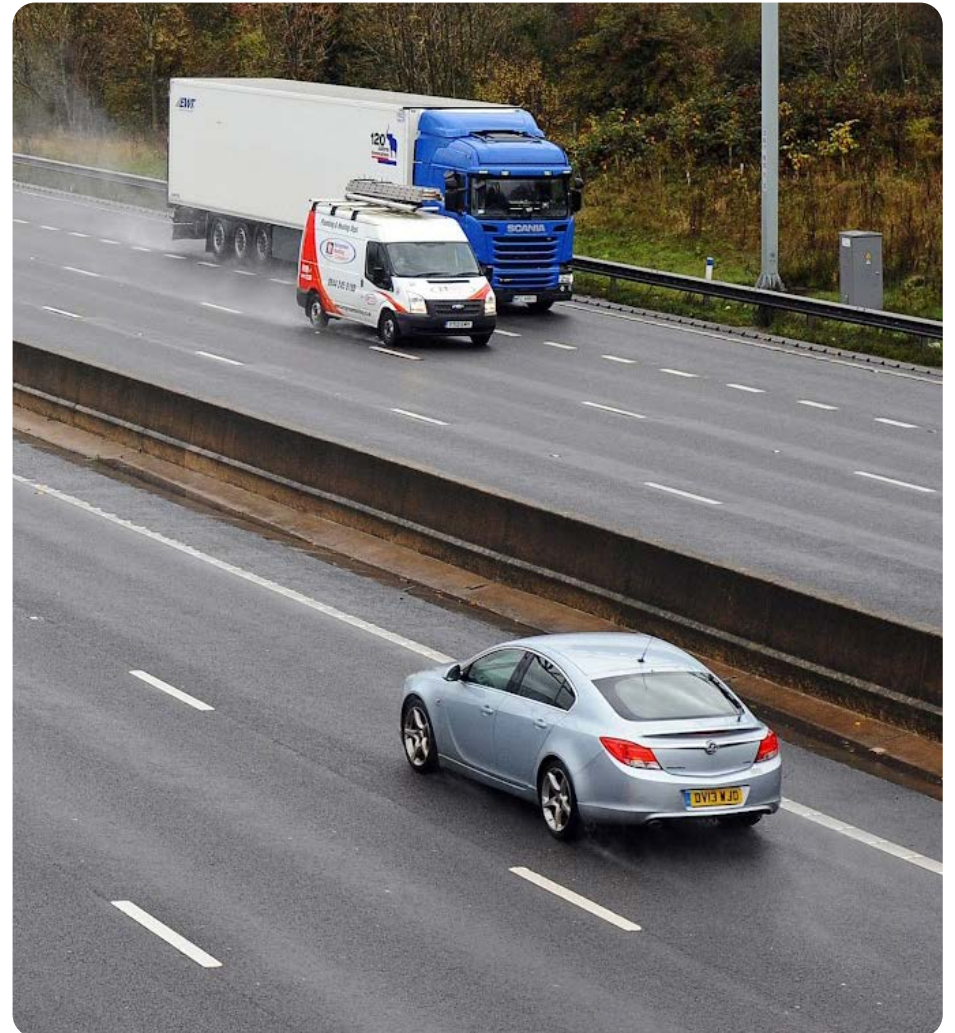
- Develop a programme to increase road user confidence in navigating diversion routes, including among those without satnav. This should focus on:
 - › Achieving unambiguous signage at and approaching junctions, including working with others to tackle confusion arising from overlapping diversions and minimising the use of symbols to indicate a route.
 - › Eliminating doubt, including between junctions, that the correct route has been taken.
 - › Regular communication of the distance and time to the end of the diversion.
 - › Effective signalling that the diversion is now over and you are back on your intended route.
 - › Ensuring attention to detail in positioning of signs to ensure their message can be assimilated instantly by drivers in the moment.
 - › Auditing of diversion routes to ensure all signs are in place and optimally positioned.
- Maximise confidence of those diverted by engaging with the council maintaining the diversion route to ensure it is in the best condition it reasonably can be. For example, eliminating defects with streetlighting and illuminated traffic signs, fixing signs and resolving surface defects. The latter is particularly important in giving motorcyclists confidence that they will be safe using the diversion route.



What we did

We conducted six focus groups involving six to eight road users each. These included those making leisure journeys, travelling on business or commuting and professional drivers in vans and lorries.

In addition, there were nine in-depth interviews, including four with motorcyclists and five with disabled drivers. There were 14 mystery shopping recorded journeys including three drivers with mobility or cognitive impairments; four journeys took place in daylight and 11 after dark.



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