

Response to consultation on M4 junction 3-12 Smart Motorway scheme and statutory instrument on variable mandatory speed limits

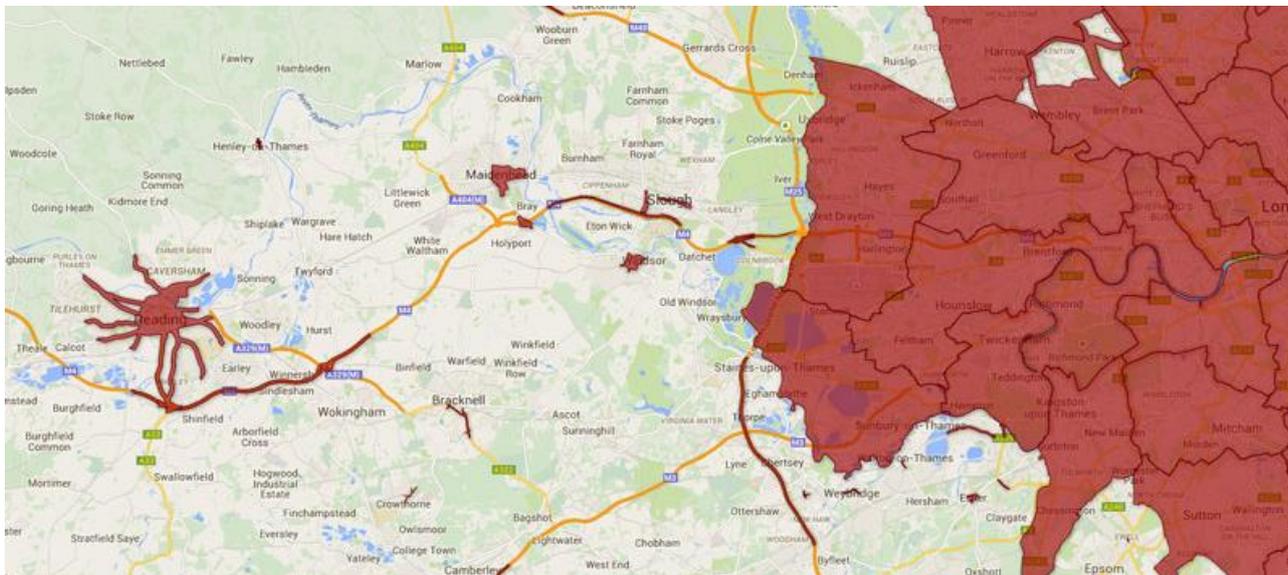
By email to the Highways Agency at: M4j3to12SmartMotorways@highways.gsi.gov.uk

1. Comments on the scheme and proposed speed limits

Campaign for Better Transport is concerned about the all-lane running aspects of the Smart Motorway scheme. While previously we recognised the potential benefits of the Managed Motorway schemes, which included the option of using the hard shoulder as a running lane only at times of congestion, we believe that permanently increasing capacity will lead to more traffic and more congestion in the long term, through the well-known mechanisms for inducing traffic.

Because of the increase in traffic expected as a result of the scheme, we are also concerned about the effects on air pollution, as this stretch of motorway runs past some highly polluted areas, particularly around Heathrow Airport, Slough, Bray near Maidenhead, Wokingham and Reading, all of which have declared Air Quality Management Areas in locations affected by pollution from the current M4 motorway.

Air Quality Management Areas in the scheme area:



In order to look more closely at the air pollution impacts, we requested a copy of the full Preliminary Environmental Information (PEI) report, and received this on DVD. Due to an administrative error, this did not happen until 5 February, after the close of the main scheme consultation. However, we have been informed that we can provide comments up to 6 March.

Our brief comments on the findings and conclusions of the report are therefore below, and we would be grateful if you would consider these to be responses to both the scheme consultation and the consultation on the statutory instrument.

There are serious questions, raised by the details of the report that we have examined, about the legality of the proposed scheme. Although the conclusion of the report is that the air pollution effects are 'not significant', there are clear indications that air pollution in areas currently above the legal limits and expected to be below these limits in the 2022 Do Minimum scenario will remain above the legal limit with the scheme in place.

If this is the case, then it is likely the scheme could not be pursued unless changes are made to the proposals.

The legislation¹ – along with the 2013 Supreme Court ruling that the UK is failing in its legal duty to protect people from the effects of air pollution,² and the 2014 European Court of Justice judgment that the government must act to bring pollution within legal limits 'as soon as possible'³ – is clear that areas currently within legal limits cannot be pushed over them, and it is unlikely that projects that make pollution worse and delay compliance are permissible either.

Measures that could be taken to reduce the effects on air pollution of the scheme are relatively simple and could be added to the proposals at this stage:

- 1. Remove all-lane running from the proposals, reserving the hard shoulder only for congested times, as in the original Managed Motorway schemes, which still had beneficial effects on congestion. By not permanently widening the motorway, this is likely to remove a large part of the risk of creating induced traffic and worsening pollution.**
- 2. Reduce the speed limit at all times to below 60 mph. This measure has been considered at other Smart Motorway locations and has been used to mitigate a similar breach of air pollution limits that would have been caused by the Highway's Agency's A556 Knutsford to Bowden scheme.**

We urge the Highways Agency to evaluate the effects of both these potential mitigation measures and find a solution that does not cause any new breaches of air pollution limits in 2022, or any worsening of pollution in areas that are predicted to remain above legal limits in the Do Minimum scenario.

¹ Directive 2008/50/EC http://ec.europa.eu/environment/air/quality/legislation/existing_leg.htm

² News about Supreme Court decision with links to summary and full judgment <http://www.healthyair.org.uk/clientearth-triumph-in-the-supreme-court/>

³ Court of Justice of the European Union, Judgment in Case C-404/13 The Queen, on the application of ClientEarth v The Secretary of State for the Environment, Food and Rural Affairs, November 2014 <http://curia.europa.eu/jcms/upload/docs/application/pdf/2014-11/cp140153en.pdf>

2. Air pollution impacts detailed in the Preliminary Environmental Information report

Air pollution assessment methods

The information on the impact of the scheme on air pollution is given in Chapter 6 of the Preliminary Environmental Information report.⁴

Air pollution evaluation is a constantly evolving topic and the subject of much research. For example, the most recent EURO VI standards designed to reduce vehicle emissions have already been called into question in terms of the real-world reductions they will bring in the future.⁵ Many other factors are also involved in determining the concentrations of pollutants experienced by people living near busy roads.

We note therefore that one of the Highways Agency's Interim Advice Notes (IANs) giving guidance on the methodology used to carry out the assessment is currently suspended, with a new note pending – the suspended note is IAN 175/13.⁶ Another advice note on the treatment of pollution emissions with changes in speed during congestion has also recently been updated in January 2014 – IAN 185/15. We request that the final Environmental Statement is completed using the newest advice and emissions data before the scheme is submitted as a planning application.

Specific locations of concern

Within the PEI report, we are concerned to find a number of locations described as facing nitrogen dioxide pollution above the legal limit of 40 µg/m³ with the scheme in place, when they would otherwise have been within legal limits in 2022.

The details of the modelled effects on nitrogen dioxide concentrations at each location are given in the Appendices to the PEI report (Table 6.4 pages 50 to 525).⁷ A list taken from these tables of example locations of concern – which would either see a breach of limits with the scheme, compared with the base case, or a worsening of the level of pollution in an area that would be over the limit without the scheme – is shown below.

The existence of any receptors that would experience this kind of impact is not acceptable, but the damage caused by the scheme is not limited to these sites. In addition to people living at these locations, many other receptors that would be above the legal limits in 2022 are expected to experience a lower magnitude of increase (for example most receptors from reference N500 to N575). These smaller changes across a wide area are not considered significant in terms of the current methodology but – importantly – will mean air pollution for many people not being brought within legal limits as soon as possible, due to the effects of this scheme.

This is why we are arguing that the scheme should be amended until its effect on air pollution is entirely neutral in the short and long term.

⁴ M4 junctions 3 to 12 smart motorway. Preliminary environmental information report Volume 1 – main text. Highways Agency, November 2014

⁵ High diesel NOx emissions 'likely for decades' due to failing tests. Transport and Environment, August 2014 <http://www.transportenvironment.org/News/high-diesel-nox-emissions-%E2%80%98likely-decades%E2%80%99-due-failing-tests>

⁶ Details of Interim Advice Notes: <http://www.standardsforhighways.co.uk/ians/>

⁷ M4 junctions 3 to 12 smart motorway. Preliminary environmental information report Volume 3 – appendices. Highways Agency, November 2014

Location reference	Location	Nitrogen Dioxide 2013 (NO ₂ µg/m ³)	Nitrogen Dioxide LTT value in 2022 without the scheme (NO ₂ µg/m ³)	Nitrogen Dioxide LTT value in 2022 with the scheme (NO ₂ µg/m ³)	Breach of limits vs Do Minimum, or Worsening while staying above the limits? (ie working against the requirement to comply with the law 'as soon as possible')
A65	Winnersh, near Wokingham (X 477774, Y 170068)	52.9	41.9	44.5	Worsening
A247	Junction 6 near Eton College (X 496222, Y 179222)	51.6	39.4	40.7	Breach
A248	Junction 6 near Eton College (X 496225, Y 179218)	51.5	39.3	40.6	Breach
A249	Junction 6 near Eton College (X 496229, Y 179209)	51.6	39.4	40.8	Breach
A250	Junction 6 near Eton College (X 496231, Y 179205)	51.9	39.6	41.0	Breach
A251	Junction 6 near Eton College (X 496234, Y 179201)	52.2	39.9	41.2	Breach
A252	Junction 6 near Eton College (X 496236, Y 179196)	52.6	40.2	41.6	Worsening
A253	Junction 6 near Eton College (X 496238, Y 179192)	53.1	40.6	42.0	Worsening
A254	Junction 6 near Eton College (X 496227, Y 179219)	51.5	39.3	40.6	Breach
A315	Junction 6 near Eton College (X 497194, Y 179104)	54.9	41.8	43.7	Worsening
A322	Junction 6 near Eton College (X 497297, Y 179106)	53.6	40.8	42.5	Worsening
N556	Near junction with A4 in Brentford (X 517529, Y 178124)	76.2	57.6	58.0	Worsening
N557	Near junction with A4 in Brentford (X 517528, Y 178126)	70.1	52.9	53.2	Worsening
X7	Near Junction 4 – Sipson/Heathrow (X 508832, Y 178348)	52.3	39.1	40.1	Breach
X30	Near Junction 6, Slough (X 496129, Y 179255)	50.8	38.7	40.0	Breach
X35	Near Junction 7, Slough/Eton Dorney (X 492941, Y 180019)	58.3	44.9	47.7	Worsening
X36	Junction 7-8 near Dorney (X 491654, Y 179679)	49.8	38.1	40.4	Breach
X47	Winnersh, near Wokingham (X 478738, Y 170102)	49.9	39.1	41.2	Breach
X612	Winnersh, near Wokingham (X 477834, Y 170062)	54.2	43.2	45.8	Worsening
X617	Brentford, next to GWQ development (X 518197, Y 178283)	71.2	55.0	55.6	Worsening

LTT = the 'long term trend' profile estimate. This takes account of the gap so far observed between projects based on vehicle emission reductions and observed NO₂ concentrations.

The conclusions of the Preliminary Environmental Assessment report

Page 6-58 of the PEI report summarises the evaluation of the significance of the scheme's effects on air pollution. It concludes that there is a risk that environmental standards will be breached, but concludes that not many people will be affected and the effects are not significant 'on balance'. We disagree with this conclusion due to the imperative to comply with legal obligations as soon as possible, as set out above.

In addition, in response to the question "Will it be difficult to avoid or reduce or repair or compensate for the effect?" the report concludes 'yes', saying "As an existing route traditional options to adjust alignment etc, are limited." We also disagree with this conclusion – the mitigation measures we propose above are both feasible and simple changes to the current plans for this Smart Motorway scheme.

March 2015

Sian Berry
Campaign for Better Transport

Campaign for Better Transport's vision is a country where communities have affordable transport that improves quality of life and protects the environment. Achieving our vision requires substantial changes to UK transport policy which we aim to achieve by providing well-researched, practical solutions that gain support from both decision-makers and the public.

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