

M4 speed limit petitions

Y Pwyllgor Deisebau | 13 Mai 2024
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Reference: SR24/8458 - 5 & 8

This briefing has been prepared to support the Committee's consideration of two petitions relating to 50mph speed limits on the Welsh trunk road and motorway network.

Petition 1

Petition Number: P-06-1413

Petition title: Scrap the 50mph limits on the M4 around Newport and Swansea and on the A470 around Pontypridd

Text of petition: Despite the fact that everyone wants to improve air quality, we need policies that can actually make the difference, no restrictions that affect our livelihood with no clear benefits to the environment. Speed limits affect our economy, the traffic on our roads, our mental health and our freedom. There's no safety issues on those dual carriageways that require such speed limits. We want our government to stop punishing motorists. We are not criminals!

Petition 2

Petition Number: P-06-1416

Petition title: Increase the speed limit on the M4 back to 70mph



Text of petition: The reduced limit is causing congestion and has an impact on drive time. It increases the time a car is located in an area producing the same level of carbon emissions a standard same volume per second over time. A faster speed would therefore allow a higher gear producing fewer emissions and spending less time in the area therefore reducing the emissions.

1. Background

Exposure to Nitrogen Dioxide (NO₂) has negative health impacts. The Welsh Government has a legal duty to comply with air quality regulations, including limits on NO₂ at the roadside. Legal limits are set at:

- an hourly limit value of an average of 200 micrograms per cubic metre (µg/m³) (which must not be exceeded more than 18 times in a calendar year); and
- an annual limit value of an average of 40 µg/m³.

Assessment and monitoring previously identified NO₂ levels above the legal limit at several locations on the motorway and trunk road network.

In 2018, both the Welsh Government and UK Government were successfully taken to Court over NO₂ levels which exceeded legal limits.

2. Welsh Government action

The Welsh Government consulted on an approach to tackling roadside NO₂ concentrations in the Spring of 2018. In November 2018 it published its plan for Tackling roadside nitrogen dioxide concentrations in Wales. In terms of the trunk road and motorway network, which the Welsh Government is directly responsible for, the plan noted:

Exceedances of legal limits for NO₂ have been identified on the following discrete stretches of motorway and trunk road outside the Cardiff and Swansea Urban Areas:

- (i) A494 at Deeside (North Wales Zone);

- (ii) A483 near Wrexham (North Wales Zone);
- (iii) M4 between Junctions 41 and 42 at Port Talbot (Swansea and South Wales Zone);
- (iv) M4 between Junctions 25 and 26 at Newport (South Wales Zone);
and
- (v) A470 between Upper Boat and Pontypridd (South Wales Zone).

The plan made clear that NO₂ concentrations were above the 40 µg/m³ limit at these sites. The Welsh Government determined the introduction of 50mph speed limits as the quickest method of achieving compliance.

In June 2018, 50mph speed limits were introduced at each of the five sites identified in the air quality plan, and made permanent the following year. The Welsh Government has monitored the sites since, and published monitoring reports on its website up to 2021. Data for 2022 has also been published through an FOI response.

Data for roadside NO₂ concentrations for the period 2018 to 2022 at each of the five sites, including the M4 sites addressed by the petitions, are provided in the table below.

Annual Mean NO₂ Concentration at Welsh 50mph trunk road and motorway sites (µg/m³)

Location	2018	2019	2020	2021	2022
A470 Pontypridd	64.6 (56.8)	54.7 (48.1)	35.9 (30.5)	38.7 (33.3)	44.4 (38.6)
M4 Newport	72.2 (63.5)	67.3 (59.2)	45.2 (38.4)	45.5 (39.2)	48.4 (42.1)
M4 Port Talbot	55 (48.4)	48.9 (43)	33.1 (28.2)	39.1 (33.6)	39.4 (34.2)
A483 Wrexham	57 (50.2)	46.5 (40.9)	32.3 (27.5)	29.6 (25.5)	33.1 (28.8)
A494 Deeside	47.9 (42.2)	41.6 (36.6)	31.2 (26.5)	32.6 (28)	32.0 (27.8)

Source: Welsh Government

Note: The data has been collected by diffusion tube and has been adjusted using the national bias adjustment factors published by Defra. Adjusted figures are shown in brackets alongside the raw data.

The Welsh Government also published its Clean Air Plan for Wales in August 2020.

While a fixed 50mph speed limit was put in place on the M4 at the Brynglas Tunnels to address air quality, a variable speed limit had already been implemented between junctions 24 and 28.

The South East Wales Transport Commission, established by the Welsh Government to consider alternatives to the M4 relief road, [published its interim report in 2019](#). This recommended the introduction of average speed control cameras between junctions 24 and 28, replacing the previous variable speed limit approach. In doing so, the Commission said:

The VSL system has been effective at regularising speeds during the inter-peak period. However, it has had a limited impact on improving traffic flow during peak periods. The locations of the spot cameras can also cause harsh accelerating and braking from some drivers. These changes in speed contribute to a breakdown of traffic flow.

Our analysis suggests an average speed control would help improve the regularity of traffic speeds across the problematic stretches of the M4. A fixed speed limit should encourage vehicles to travel at a more consistent speed, making many journeys quicker and more reliable. A single speed limit should also reduce driver confusion and improve safety.

We have considered and modelled a range of speed limits from 40mph to 50mph and 60mph. Our analysis demonstrates 50mph to be the optimal speed in terms of journey time reliability and journey speeds, also taking account other important factors such as air quality, emissions and noise.

In September 2021, the [Welsh Government announced](#) enforcement of 50mph at all five locations would begin from 4 October that year.

The Cabinet Secretary for Climate Change and Rural Affairs, Huw Irranca-Davies MS, has written to the Chair regarding petition P-06-1413 and P-06-1416. He outlines the legal position on air quality and explains the Welsh Government's rationale for the limits. He says he understands that reduced speed limits are not always welcome, and points to action taken to raise awareness of the reason for the reduced limits. He also explains that monitoring data "has revealed significant reductions" in NO₂ pollution levels at the locations where 50mph limits have been introduced.

3. Welsh Parliament action

The Petitions Committee has previously considered a petition calling for the Welsh Government to “Remove the average speed cameras and 50mph speed limit on the M4 between Newport and Cardiff.” The Committee noted the concerns, whilst recognising that the Wales Transport Strategy emphasises environment, air quality and people’s well-being through focusing on sustainable travel and improved public travel infrastructure. It concluded the Welsh Government has no plans to remove the average speed cameras at present, and agreed to thank the petitioner and close the petition.

The issue of 50mph limits in general, and on the M4 in particular, has been discussed in the Senedd. For example, in November 2022 Natasha Asghar MS said the 50mph cameras on the M4 in Newport “simply haven’t worked” as “heavy congestion still plagues that stretch of the road every single day”. She asked, referring to cancellation of the M4 relief road scheme:

... is it not true that the imposition of unrealistic speed limits has less to do with cutting pollution and everything to do with forcing motorists off our inadequate roads to cover up your failure to provide Wales with an effective and efficient road network?

The then Deputy Minister for Climate Change, Lee Waters MS, responded:

The provision of 50 mph speed limits, as the Member knows, were, in many cases, court ordered because they were breaching air quality targets, and, far from her saying have proven ineffective, the reverse is true, as she well knows. They have proven effective in bringing down the pollution levels, as well as contributing to smoother flow of traffic.

In Plenary in June 2019, responding to the announcement that the limits were being made permanent, Mark Reckless MS asked about the evidence for their effectiveness “in terms of reducing or otherwise the pollutants we’re concerned about?” He made clear this was in the context of the decision not to proceed with the M4 relief road given that “an inspector [at the public inquiry] on the M4 said that the relief road would reduce climate change emissions and air pollution”.

The then Minister for Environment, Energy and Rural Affairs, Lesley Griffiths MS, suggested communication about the reason for the speed limit had not been effective, and the reasons were not well understood:

... I don't think people have been adhering to it because I think there has been a little bit of confusion as to what it's for and because if they think it's because of speed and it's not being enforced, then they don't stick to the 50 mph. Certainly, the evidence that I've seen from across the five sites is mixed, but I think if we have signage saying very clearly that poor air quality kills—and I think that you have to sometimes shock people—then people will adhere to the reduction more willingly.

Every effort is made to ensure that the information contained in this briefing is correct at the time of publication. Readers should be aware that these briefings are not necessarily updated or otherwise amended to reflect subsequent changes.