

# Petition: Removal of M4 Speed Restrictions at the Brynglas Tunnels

Y Pwyllgor Deisebau | 17 Ionawr 2017  
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## Research Briefing:

Petition number: P-05-729

Petition title: Removal of M4 Speed Restrictions at the Brynglas Tunnels

Text of petition:

Since 2011 there have been speed restrictions placed in and around the Brynglas Tunnels on east and westbound M4 carriageways causing misery for countless motorists on a daily basis. It is proposed to remove all speed restrictions in this area and revert back to the national speed limit in both east and west directions.

## Background

The M4 corridor around Newport between Junction 24 (Coldra) to Junction 28 (Tredegar Park) is the busiest section of road in Wales and carries in the region of 100,000 vehicles every day. As the Highway Authority for the Welsh trunk road and motorway network, the Welsh Government introduced a Variable Speed Limit (VSL) along this 8 mile (13km) stretch of road in 2011. The system is known as the M4 South East Wales Variable Speed Limit scheme and, according to the Welsh Government website, was introduced “as a means of reducing congestion and improving safety and journey time reliability”. The VSL system replaced the average speed cameras system installed in 2009 to keep traffic moving at up to 50mph while route improvement works were carried out.

## Motorway Incident Detection and Automatic Signalling (MIDAS) System

Variable speed limits on the M4 between junctions 24 and 28 are operated automatically by a system of sensors built into the road surface called the Motorway Incident Detection and Automatic Signalling (MIDAS). Its underlying principle is to keep traffic moving by adjusting the speed limit, helping to make journeys safer and more reliable.

Volume 9, Section 1, Part 2 ([TD 45/94 \(PDF, 57KB\)](#)) of the [Design Manual for Roads and Bridges](#) contains the standard criteria for MIDAS system and states:

The areas to be covered by these systems are sections of motorways which have features that may lead to frequent queues or incidents. A prime aim of MIDAS is to **protect the back of traffic queues, which have formed or are about to form, by automatically setting suitable signals to warn approaching traffic. This will achieve a speed of operation and accuracy unattainable by manually operated systems.** Such systems can also be used with variable message signs to give advance warning of queues and incidents enabling drivers to seek alternate routes if they so choose.

The VSL scheme is managed by [Traffic Wales](#), whose control room team operate and monitor the system on behalf of the Welsh Government from the [South Wales Traffic Management Centre](#) in Cardiff. The Traffic Wales/Welsh Government [Your Questions Answered \(PDF, 2.9MB\)](#) document states that:

At present, the section is vulnerable to congestion build-up as **traffic flows exceed capacity** (the approximate average traffic flow is 2,188 vehicles per lane per hour compared with 1,800 vehicles recommended by design standards). Combined with varying gradients and tight bends that reduce visibility for the driver, the level of congestion contributes to a **local accident rate higher than the national motorway average**, which included nine fatalities between July 2006 and June 2009.

Through this section of motorway, the mandatory speed limit is adjusted according to traffic conditions to keep vehicles moving steadily. During congestion-free and incident-free periods, the VSL system signage is not operational and the national speed limit applies. During high traffic volume periods or in the event of an incident, the systems sensors detect the build-up of congestion and calculate the optimum speed limit for the amount of traffic. Speed limits are then displayed on the electronic signage located above lanes or at the side of the road to reduce the risk of collisions from vehicles approaching the rear of queues ahead. When traffic flows subside, VSL scheme signage is no longer required and the carriageway returns to normal operation. Alongside the automated system, authorised control centre operators monitor the road network and can intervene if needed.

In a letter to the Chair from the Cabinet Secretary for the Economy and Infrastructure dated the 22 November 2016, the Cabinet Secretary stated that there is currently a “temporary 50mph speed limit in place on the westbound approach to the Brynglas tunnels” due to continuing reliance on a temporary lighting system installed to allow quick reopening of the tunnel after a fire in July 2011. Following prioritisation of [refurbishment works](#) on the westbound bore, “removal of the temporary 50mph speed limit ..... is anticipated by April 2017”.

### **Variable Speed Limit Enforcement**

Speed enforcement cameras are fitted onto overhead gantries with cameras activating following the detection of a vehicle travelling in excess of the speed limit in force at the time. The system has the necessary [Home Office Type Approval](#) (HOTA) which allows its use for

enforcement purposes. Speed enforcement across Wales is managed and coordinated by [GoSafe](#), a multi-agency partnership comprising all Highway Authorities within Wales and the four Welsh police forces. The Welsh Government owns and installs the cameras on the M4 Motorway and the police, as the enforcement authority, are responsible for carrying out enforcement on a day-to-day basis.

## Welsh Government action

On 17 January 2011 the Welsh Government laid the [M4 Motorway \(West of Junction 23A \(Magor\) to East of Junction 29 \(Castleton\)\) \(Variable Speed Limits\) Regulations 2011](#) (the 2011 Regulations) before the Assembly to enable the introduction of an enforceable variable speed limit system on the M4 Motorway between Junction 23A (Magor) and Junction 29 (Castleton) and adjoining slip roads. These regulations were subsequently replaced by the [M4 Motorway \(West of Junction 23A \(Magor\) to East of Junction 29 \(Castleton\)\) \(Variable Speed Limits\) Regulations 2015](#) (the 2015 Regulations) which were laid before the Assembly on 31 March 2015 and came into force on the 21 April 2015. The [Explanatory Memorandum \(PDF, 130KB\)](#) to the 2015 Regulations states that an audit found “minor errors in the scheme length descriptions in the schedule to the 2011 Regulations” and that the 2015 Regulations “correct those errors”. The explanatory memorandum further explains that:

An audit found minor errors in the scheme length descriptions in the schedule to the 2011 Regulations, and there are some overlaps between areas covered by the 2011 Regulations and areas covered by other road traffic orders. This discrepancy is making the police and Go-Safe, who perform a management function for prosecutions relating to exceeding speed limits, **wary of enforcing the lower speed limits on drivers**. The issues about possible conflicts and overlaps with pre-existing SIs at entry/exit slip roads throughout the VSL scheme should not affect the enforcement of the VSL on the M4 itself. However these issues, if not resolved, may be raised as part of any legal challenge and could be used to try and **undermine the validity of the VSL scheme**. Our enforcement partners (the police and Go-Safe) **are unwilling to enforce compliance while this risk of legal action remains**. Data analysis by officials shows that **compliance with the speed limit is gradually diminishing**. For example, at a sample location displaying a 50mph setting, approximately **85% of vehicles were driven below the speed camera capture threshold at the start of the scheme**. This figure is now **approximately 79%**. This shows that the **full benefits of the scheme are not being realised without the enforcement aspect**. In order for our enforcement partners to proceed with confidence, these Regulations correct the errors in the 2011 Regulations.

On the 25 July 2016, the Welsh Government [announced](#) the launch of a new safety campaign for this stretch of the M4. The Welsh Government stated that the campaign would consist of an initial education and awareness phase, inclusive of a “grace period”, followed by an enforcement and prosecution phase. A [tweet by GoSafe](#) on the 20 September 2016 indicates that enforcement began on 26 September 2016.

The Cabinet Secretary’s letter states that “a variable speed limit system is in place along this stretch of the M4 to ensure the safety of road users”. The letter also states that the proposed

[M4 corridor around Newport project](#) is “considered to be the sustainable, long-term solution to the social, environmental and economic problems associated with the existing M4 around Newport”. In a [written statement](#) on the project published by the Cabinet Secretary on the 14 December 2016, the Welsh Government revealed that the “latest assessments indicate that future traffic levels, taking into account our latest Metro proposals, will continue to grow” with the M4 around Newport “well over capacity, with severe and worsening problems”. The statement confirmed that the project shall “proceed to be considered by Independent Inspectors at an Inquiry determined by the Planning Inspectorate to commence on 28 February 2017”.

## National Assembly for Wales action

In response to a [question on the impact of the VSL scheme on traffic flow](#) from William Graham AM in Plenary on the 9 February 2013, the First Minister Carwyn Jones stated:

Current indications suggest that **congestion is less severe following the installation of the system**. The system minimises rather than fully alleviates the queuing that results from demands on the network at peak times. **A full assessment will be undertaken once sufficient information has been gathered to provide a statistically reliable assessment.**

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.