

# Welsh 20mph Task Force Group

Final Report

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July 2020



## Notes

See Glossary of Terms for definition of words in italic and underlined.  
***Recommendations*** are shown italic and bold.

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# 1. Executive Summary

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The Wales 20mph Task Force Group was formed on the direction of Lee Waters, the Deputy Minister for Economy and Transport, in May 2019.

It has identified the outcomes which would be expected from changing the default speed limit for restricted roads in Wales to 20mph; and the practical actions needed to implement this change in the law.

There is overwhelming evidence that lower speeds result in fewer collisions and a reduced severity of injuries; and consistent evidence that casualties are reduced when 20mph limits are introduced. It should be noted that these benefits are achieved even when average speeds do not drop to 20mph - any speed reduction leads to a positive outcome. Speed reductions are expected to increase over time as people become accustomed to the lower limits and slower driving is normalised. Public opinion is likely to support the change.

There is some evidence that 20mph limits lead to more walking and cycling, which is strongly supported by legislation and policy in Wales, and these may increase over time. Changes in air quality are expected to be negligible or show a slight improvement, and slower speeds are likely to result in lower noise levels. The impact on journey times is likely to be slight.

Although it has been possible to introduce 20mph limits for many years only around 1% of the urban road network in Wales is currently subject to them, even though most roads only serve residential areas. By making the default limit 20mph for *restricted roads* local authorities\* will in future only need to identify the far fewer sections of road where a higher speed is justified. This will enable the rapid and substantial expansion of 20mph limits in a highly cost-effective way.

Welsh Ministers have powers to amend *primary legislation* to introduce a national default speed limit of 20mph on restricted roads, which are defined as roads with street lights at least every 200 yards. This should be done by the Senedd passing *subordinate legislation*, which is a reasonably straightforward procedure. Similar legislation will be needed to change the signing rules so that regular small repeater signs may be used where the limit is 30mph.

Some policy and guidance documents will need to be changed by Welsh Government, including guidance to local authorities on setting local speed limits. The Highway Code will also need to be amended; this will require the cooperation of the Department for Transport.

Identifying exceptions – those restricted roads which should *not* be subject to a 20mph speed limit – will be the responsibility of local authorities and Welsh Government for trunk roads. When considering exceptions they should take into account the functions of each section of road or street, both as a corridor for all types of movement and as a place for local people to live and access local amenities. Transport for Wales has begun to develop a *GIS* tool to assist authorities in this task which will help to achieve a consistent approach to making exceptions to 20mph limits across Wales.

*Traffic Regulation Orders* need to be made by local authorities to change speed limits, including for exceptions to the default urban 20mph limit. Simplifying this process will assist local authorities in making extensive changes to speed limits and reduce costs.

It is important that the Police and GoSafe are committed to enforcing 20mph speed limits so that driver behaviour can begin to be changed. This will require some alterations to their current policies and operations, which have previously targeted enforcement at locations with high numbers of *KSI* casualties. In future the need for proactive enforcement should be reduced when all new cars are fitted with *Intelligent Speed Assistance*.

Traffic signs will need to be changed to enable the new limits to be enforced and special signs will be needed at the border with England.

Because most roads in built-up areas will in future be subject to a 20mph limit it will not be possible to re-engineer all of them to make them self-enforcing. Some physical measures to reduce speeds will still be necessary, but should be targeted at locations where speed and road danger are highest. Low cost techniques that change drivers' perception of the road should also be used first in preference to more costly interventions. Local communities also have a part to play in designing and delivering these 'placemaking' changes and should be supported through a dedicated funding stream.

Lowering traffic speeds in urban areas should be seen as a major behaviour change project. This will require a sophisticated communications and marketing strategy based on building social unacceptability for speeding in residential areas, and backed up with strong enforcement in the early stages.

\* Reference to local authorities generally means traffic authorities which includes Welsh Government in respect of Trunk Roads.

There should be a linked sequence of campaigns, beginning prior to the passing of the subordinate legislation with a 'national conversation' about what urban streets are for. The campaign messages should then develop over phases to focus on various aspects of 20mph, including a range of benefits beyond injury reduction, as part of a strategy to increase driver compliance. Local authorities will also need to engage with local communities on the detailed changes to speed limits in each settlement and should be supported by Welsh Government through a tool-kit of marketing and communications materials.

Further support should be built amongst a range of organisations operating vehicle fleets to create a cohort of 'pace car' drivers. This will help reduce speeds, particularly at busy times, and help normalise the idea that 20mph is an appropriate speed in most built-up areas.

A robust and comprehensive monitoring and evaluation framework should be established so that the outcomes can be assessed, and lessons learnt and disseminated. This should focus on a representative sample of eight settlements (two per region) across Wales which will be studied in detail, with more routine data being collected for Wales as a whole. These eight settlements should form part of an early engagement with a number of pilot authorities that are committed to wider 20mph limits, and are willing to work with Welsh Government on developing the guidance and tools needed for Wales as a whole.

The significance of the change being made in Wales should not be underestimated. No country has previously chosen to reduce the default speed limit for urban areas to 20mph and there will be global interest in learning from Wales' experience. The final evaluation report should be independent and produced five years after the speed limit change.

A default 20mph speed limit for restricted roads in Wales should be introduced as quickly as possible, with a target date of April 2023 for the change in the law coming into effect. This is based on a Plenary Vote in the Senedd to take forward the legislation being secured in July 2020 and the passage of the legislation being completed in October 2021.

Making the change to a default 20mph speed limits in most urban areas is simple in legal terms, but the ramifications are wide and complex. It should be seen as a major Government project, which will need strong and dedicated governance to ensure it is successfully delivered. A Project Board and Project Team should be established with the authority and resources needed to drive the project through to completion. Additional resources will also need to be made available to local authorities to carry out all of tasks required of them.



## 2. Introduction

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### Structure and Workings of the Task Force Group

The Wales 20mph Task Force Group was formed on the direction of Lee Waters, the Deputy Minister for Economy and Transport, in May 2019.

This followed a statement by the First Minister in the Senedd on 7 May 2019 where Mark Drakeford said that 20mph should be the default speed limit for residential areas and that that a Task Force Group should be established to 'identify the practical actions' needed to implement this change. The First Minister went on to say:

*'We know that 20mph zones reduce speed of traffic, reduce accidents – particularly accidents to children – and we want to see that become the default position right across Wales.'*

The Group was chaired by an independent transport planner and engineer, Phil Jones, and governed by a Project Board with representatives from Welsh Government and the Wales Local Government Association. A wide range of public, private and third-sector organisations with an interest in the issue were represented on the Task Force (See Appendix A).

Discussions were also held with the Department for Transport, PACTS, Transport for London (TfL), the RAC Foundation and the AA.

A series of sub-groups was formed to advise on the following issues, with their recommendations being discussed by the full Task Force.

- Outcomes, Evaluation and Monitoring
- Legislation and Policy
- Promotion and Communications
- Exceptions, Engineering and Enforcement
- Modelling

In parallel with this work Welsh Government commissioned the Wales Centre for Public Policy (WCPP) to identify successful behaviour change interventions which should be used to encourage compliance with a default 20mph limit. The draft WCPP report was shared with the Promotion and Communications sub-group and informed their recommendations to the Task Force.

The 20mph Task Force Group worked alongside another Task Force Group set up to advise Welsh Government on how best to introduce effective enforcement against Pavement Parking.

## 3. The Case for Change

### Road Traffic Collisions and Casualties

#### Existing trends and policies

Although the number of *Personal Injury Accidents* (PIAs) recorded in Wales has fallen since 1993 a total of 4000 PIAs still occurred during 2018, the last year for which complete data is currently available.

The number of PIAs which involved people being killed or seriously injured (KSIs) has not declined as much as all accidents and in fact there was a 6.7% rise in KSIs during 2018<sup>1</sup>, with a total of 966 being recorded in Wales. Similarly, the number of PIAs in which one or more fatalities occurred has been broadly stable over the last nine years, at around 100 per year.

These more serious collisions resulted in 1137 people being killed or seriously injured in Wales in 2018, of which 80 were children. The largest proportion of these serious or fatal casualties occurred on roads with a 30 mph speed limit.

The Welsh Government published its current Road Safety Policy in 2013 which set a series of targets for reductions in the number of people being killed or seriously injured. These targets were to be met by 2020, compared to the average figures for Wales between 2004 and 2008. The target figures and the progress reached by 2018 are given in Table 1 below.

**Table 1: Reductions in KSI casualties in Wales – Targets and Actual by 2018**

The 2018 figures show that two of these three targets are still some way from being achieved and more needs to be done.

Target Group	Target Reduction	Actual Reduction by 2018
All people	40%	19.1%
Young People (16-24)	40%	44.7%
Motorcyclists	25%	6.6%

<sup>1</sup> gov.wales/sites/default/files/statistics-and-research/2019-09/police-recorded-road-accidents-2018-990.pdf

## Road safety is more than casualty reduction

Road safety can be defined as ‘freedom from the liability of exposure to harm or injury on the highway’.<sup>2</sup> This is in contrast to much of what is commonly misunderstood to be road safety. As researchers noted almost three decades ago,

*‘road safety usually means the unsafety of the road transport system’.<sup>3</sup>*

Road safety is more than about the avoidance of being injured. It must also address the perception of risk of harm and freedom from harm and its manifestation at the individual, community and societal levels.

For example, according to the British Crime Survey, speeding traffic was rated as the most serious problem of 16 social problems, all of which were rated on a scale from 1 (not a problem at all) to 4 (very big problem). Males and females both rated speeding traffic as the greatest problem in local communities – a perceived lack of safety. This rating also held true whether respondents were young, middle aged, or old.<sup>4</sup>

Loss of children’s independent mobility is a key indicator of how casualty reduction alone cannot deliver a healthier, safer society. In surveys of children’s school travel mode repeatedly across the UK the top concern of parents/guardians is fear of motor traffic. This then leads to the vicious spiral of increased danger as more people drive their children to school – which amplifies health inequalities.

This then has significant environmental as well as health impacts. Minimising a child’s independent transport is associated with substantial loss of physical, mental and social health benefits and can establish habitual sedentary behaviours across the life-course. Yet, for traditional road safety led by a casualty reduction focus, more children in cars may lead to lower casualty numbers. Road safety has not been improved. Rather, road safety, as measured by casualties, has been achieved through fear. The alternative, of which 20mph can play an important part, is tackling road danger at source i.e. road danger reduction.

## Effect of Lower Speeds on Collisions and Injuries

There is overwhelming evidence that lower speeds result in fewer collisions and in reduced severity of collisions and injuries.<sup>5,6</sup> This evidence has built up over more than two decades.

The road safety benefits of reducing speeds in urban areas were recognised in February 2020 at the Third Global Ministerial Conference on Road Safety which was hosted by the Swedish Government, in collaboration with the World Health Organisation. The resulting ‘Stockholm Declaration’ was adopted by Government Ministers and other stakeholders represented at the conference and includes the resolution to:

*“Focus on speed management, including the strengthening of law enforcement to prevent speeding and mandate a maximum road travel speed of 30 km/h in areas where vulnerable road users and vehicles mix in a frequent and planned manner, except where strong evidence exists that higher speeds are safe, noting that efforts to reduce speed in general will have a beneficial impact on air quality and climate change as well as being vital to reduce road traffic deaths and injuries.”<sup>7</sup>*

It can be clearly understood that the higher the speed the longer it takes to stop the vehicle and the greater the harm on impact. At the point a 20mph car would have stopped, a 30mph car would still be doing 24mph. The risk of being killed is almost 5 times higher in collisions between a car and a pedestrian at 50km/h (31mph) compared to the same type of collisions at 30 km/h (18.6mph).<sup>8</sup> In 2018 the OECD<sup>9</sup> reported that research consistently shows that lower speeds reduce deaths and injuries, not least because there is more time to react.

Research by the Transport Research Laboratory has shown that for urban roads with low average speeds there is an average 6% reduction in collisions with each 1mph reduction in average speed.<sup>10,11</sup> This latter point is often overlooked, especially in the absence of three years or more of post-implementation casualty data. It is therefore wrong to think that average speed reductions of even 1 to 2mph are trivial and have little or no value.

<sup>2</sup> Davis, A. 1992. Livable streets and perceived accident risk: quality of life issues for residents and vulnerable road users, *Traffic Engineering and Control*, 33(6): pp.374-379 2018.

<sup>3</sup> Silcock, D., Barrell, J., Ghee, C. 1991. The measurement of change in road safety, *Traffic Engineering and Control*, 32(3): 120-129. P., Bornioli, A., Bray, I., et al. 2018. The Bristol twenty miles per hour limit evaluation (BRITE) study. University of the West of England, Bristol..

<sup>4</sup> Poulter, D., McKenna, F. 2007. Is speeding a “real” antisocial behaviour? A comparison with other antisocial behaviours, *Accident Analysis and Prevention*, 39: pp. 384-389., Epub 13/07/2019 doi:10.1136/injuryprev-2019-04330

<sup>5</sup> MASTER Project, 1999. Managing speeds of traffic on European roads. Transport Research, Fourth Framework Programme Road Transport. Luxembourg: Office for Official Publications of the European Communities.

<sup>6</sup> Taylor, M., Lynam, D., Baruya, A. 2000. The effects of drivers’ speed on the frequency of road accidents, Crowthorne: TRL.

<sup>7</sup> <https://www.roadsafetysweden.com/contentassets/b37f0951c837443eb9661668d5be439e/stockholm-declaration->

<sup>8</sup> International Transport Forum/OECD, 2018. Speed and Crash Risk. Paris: OECD [www.itf-oecd.org/sites/default/files/docs/speed-crash-risk.pdf](http://www.itf-oecd.org/sites/default/files/docs/speed-crash-risk.pdf) accessed 18th July 2018.

<sup>9</sup> Organisation for Economic Co-operation and Development

<sup>10</sup> Finch, D., Kompfner, P., Lockwood, C., Maycock, G. 1994. Speed, speed limits, and accidents. TRL Project Report 58, Crowthorne: TRL.

<sup>11</sup> Taylor, M., Lynam, D., Baruya, A. 2000. The effects of drivers’ speed on the frequency of road accidents, Crowthorne: TRL.



It is also important to note that road traffic injury is also strongly associated with poverty. Child pedestrian deaths in deprived neighbourhoods are over four times those in affluent neighbourhoods.<sup>12,13</sup> Reducing speeds through the application of area-wide 20mph speed limits would therefore help reduce health inequalities.

The evidence for reduced casualties as an outcome of 20mph speed limits was reviewed in 2018 for the Welsh Government by Dr Adrian Davis.<sup>14</sup>

The Review concluded that:

***“For casualty reduction the evidence is consistent that casualties are reduced as a result of 20mph speed limits.”***

An important and nuanced understanding of the effect of 20mph limits on reducing speeds and casualties was gained through the evaluation of their extensive application across Bristol<sup>15</sup>, which noted that (even at only three years post-implementation):

***“casualty reduction is being achieved even when speed driven don’t drop to 20mph itself: ‘success is not defined by all average speeds being under the set speed limit of 20mph – it is about bringing vehicle speeds down closer to 20mph, and assessing any positive impacts of that speed reduction compared to the situation before the introduction of the lower limits.”***

Further details of the findings of the Davis report are included in Appendix B.

## Walking and Cycling

Increasing walking and cycling is an important policy goal of the Welsh Government. Active Travel is good for people’s mental and physical health and when it replaces a car trip will help to reduce carbon emissions and improve air quality. More walking and cycling produce more cohesive and safe communities for people to live, work and socialise in.

Streets that enable and encourage active travel are key to delivering the aspirations of the Well-being of Future Generations (Wales) Act, which aims to ensure improvement to the lives of both current and future generations; and the Active Travel (Wales) Act, which aims to make walking and cycling the most natural and normal ways of getting around. Planning Policy Wales places walking and cycling at the top of its transport hierarchy and states that people-oriented streets are fundamental to creating sustainable places.

Slower traffic speeds are an important way of reducing people’s perception of road danger thus encouraging more people to walk and cycle. The statutory Guidance published by Welsh Government on Active Travel<sup>16</sup> notes:

***“Setting appropriate speed limits has significant benefits for pedestrians and cyclists, and the use of 20mph limits is encouraged and supported by the Welsh Government, particularly in residential areas”***

The Covid-19 pandemic has added further justification for enabling more walking and cycling to offset any increase in car use while public transport capacity is reduced.

There has been little research as yet which has focused on monitoring any changes in active travel as the result of introduction of 20mph speed limits in the UK, but evidence from initial pilot schemes in Bristol and Edinburgh both reported positive results. Objective counts during the piloting of 20mph in Bristol found small increases in walking and cycling. Self-reported increases in walking and cycling were also noted after implementation of the pilot 20mph speed limit in Edinburgh.<sup>17</sup>

In continental Europe research has reported that objectively assessed traffic speed levels of 30km/h or less are associated with a higher likelihood of cycling.<sup>18</sup> More broadly than 20mph speed limits research, there is clear evidence that an increase in the safety, convenience, and comfort of walking and cycling, and a reduction in the attractiveness of private motor vehicle use (speed, convenience, and cost) are essential to achieve modal shift.<sup>19</sup> From UK studies there is evidence from one year post-implementation of city-wide 20mph limits that the number of walking and cycling trips increase but as yet there is no long term data.

## Social cohesion

There is clear evidence that more social connectivity including friendships and acquaintances protects against death from all causes. This protection is as much as 50% higher for those with greater social connections.<sup>20</sup> Possible increases in social interaction such as with neighbours due to more walking and cycling and consequent incidental social connectivity could therefore lead to health improvements. Any change is, however, likely to be measurable only over an extended period of five years plus and identifying any causal effect is challenging.

<sup>12</sup> Abdalla, I., Barker, D., Raeside, R. 1997. Road accident characteristics and socio-economic deprivation. *Traffic Engineering and Control*, December, 672-676.

<sup>13</sup> Adams, J., White, M., Heywood, P. 2005. Time trends in socioeconomic inequalities in road traffic injuries to children, Northumberland and Tyne and Wear 1988–2003. *Injury Prevention*;11:125-126 doi:10.1136/ip.2004.007823.

<sup>14</sup> Davis, A. 2018. The state of the evidence on 20mph speed limits with regards to road safety, active travel and air pollution impacts. A Literature Review of the Evidence. Cardiff: Welsh Government.

<sup>15</sup> Pilkington, P., Bornioli, A., Bray, I., et al. 2018. The Bristol twenty miles per hour limit evaluation (BRITE) study. University of the West of England, Bristol.

<sup>16</sup> gov.wales/sites/default/files/consultations/2020-02/active-travel-guidance\_1.pdf

<sup>17</sup> Davis, A, 2018.

<sup>18</sup> Davis, A, 2018.

<sup>19</sup> Elvik, R. 2009 The non-linearity of risk and the promotion of environmentally sustainable transport, *Accident Analysis and Prevention*, 41: 849-855.

<sup>20</sup> Holt-Lunstad, J. et al, 2010. Social Relationships and Mortality Risk: A Meta-analytic Review, *PLOS ONE Medicine* <https://doi.org/10.1371/journal.pmed.1000316>

## Air quality

Despite growing interest in the issue of emissions there is relatively little evidence for the effect of 20mph speed limits on air quality.

A 2017 study which modelled the impacts of a 20mph default speed limit for *restricted roads* (see Section 4) across Wales concluded there would be an overall improvement in air quality. The researchers also calculated gains of 54 lives saved and a decrease of 647 years of life lost due to reduced *PM2.5* and Nitrogen Dioxide emissions.<sup>21</sup>

The most powerful yet still cautious statement that can be made for the link between 20mph speed limits and air quality is that where there has been any investigation into air quality impacts, these are reported as either negligible or a slight improvement.<sup>22</sup>

## Noise

Evidence for other changes in health impacts include likely reductions in noise with lower motor traffic speeds. Research finds that higher motor vehicle speeds always lead to greater annoyance<sup>23</sup> but more significantly lower speeds and hence reduced noise could result in positive changes in physical and mental health outcomes including lowering hypertension.

## Journey Times

The concern is often expressed that 20mph speed limits will significantly increase journey times, both generally and for particular types of traffic such as buses. In fact previous studies have indicated that the reduction in the speed limit has not significantly increased journey times<sup>24</sup>. While this finding may be surprising, it can be explained by the fact that overall point-to-point speeds in most urban areas are determined by delays at junctions rather than on the sections of roads between them. For much of the day it is rarely the case in towns and cities that vehicles can reach 30mph for more than a minute or two before they are slowed by queuing vehicles or red signals.

In order to assess whether this would be the case in the Welsh context, Transport for Wales (TfW) undertook journey time modelling for a series of routes using a Geographic Information Systems (GIS) analysis, as reported in Appendix C. This exercise calculated the change in travel time compared to current off-peak all-traffic speeds, assuming that future speeds in the new 20mph limits would reduce to 20mph. This therefore gives a worst case in terms of journey time impact.

In summary, TfW found that the impact on long distance journey times across Wales would be minimal, largely because few of these routes would be affected by the change in speed limit. A greater impact was found on longer routes through urban areas, but even on the 38km long bus route from Maerdy to the centre of Cardiff the forecast increase in off-peak journey time was only 5 minutes. As buses travel more slowly than general traffic the increase on off-peak bus journey time along this route is expected to be less than this.

Notwithstanding the above, it should be noted that bus services are normally efficiently planned around resource availability, (i.e. driver and vehicles) and are scheduled to maximise service level, coverage and connectivity. Any additional time that may be required to operate a route could impact on the future delivery, frequency and cost of the services as some are scheduled with only a few minutes layover before departing again. The potential impact of the reduced speed limit will need to be considered carefully by local authorities when assessing whether exceptions to 20mph limits on bus routes are justified (see Section 4).

## Public Support

In surveys over the past decade across the UK there has been a consistent positive finding of public support for 20mph limits both pre- and post-implementation. In a trial of 20mph limits across Scotland in 2001 overall results from the attitudinal survey demonstrated strong local support for the schemes and almost three quarters of respondents considered that the experiment had been either 'very' or 'partly' successful.<sup>25</sup> More recent studies have reported that public support for 20mph is consistently high (62%-89%) for residential streets where reported (for Portsmouth, 2010; Bristol, 2012; Edinburgh 2013; Atkins interim evidence 2016; Bristol, 2018; Calderdale, 2018), and 72% on busy streets e.g. high streets (Bristol, 2018).<sup>26</sup>

<sup>21</sup> Jones, S., Brunt, H. 2017. Twenty miles per hour speed limits: a sustainable solution to public health problems in Wales, *Journal of Epidemiology and Community Health*, 71: pp.699–706. doi:10.1136/jech-2016-208859.

<sup>22</sup> Davis, A. 2018.

<sup>23</sup> See Freitas, E. et al 2012. Traffic noise abatement: How different pavements, vehicle speeds and traffic densities affect annoyance levels, *Transportation Research Part D*, 17(4) 321-326.

<sup>24</sup> Bristol City Council (BCC), 2012. 20MPH Speed Limit Pilot Areas. Monitoring Report. Bristol: Bristol City Council.

<sup>25</sup> Burns, A, Johnstone, N., Macdonald, N. 2001. 20mph speed reduction initiative. Edinburgh: Scottish Executive Central Research Unit.

<sup>26</sup> Davis, A. 2018.

Repeat survey work with a national polling agency using representative sampling from across Great Britain has reported that support for 20mph speed limits increases from around 70% to 80% post implementation.<sup>27</sup> However, the same research has also found that there is 'pluralistic ignorance' – a belief that one's view are those of a minority. While people surveyed supported 20mph speed limits by a significant majority they wrongly believed that they were in a minority.<sup>28</sup> In such situations support is likely not to be articulated because of the belief that it is a minority view leading to 'spirals of silence'. This issue will need be addressed through the Communication and Promotion Strategy (Section 7).

## Summary

Enabling a much wider take up of 20mph limits is expected to achieve significant road safety benefits, particularly in deprived neighbourhoods. In the longer term, reductions in the perception of road danger is expected to lead to more walking and cycling which will improve public health and replace some short car journeys, and so achieving further reductions in collisions and casualties. More walking and cycling is also likely to lead to greater social cohesion which brings further societal and health benefits.

Lower speeds will lead to reductions in traffic noise, while impacts on air quality will be neutral at worst and journey time increases will be slight. Evidence shows that most people support 20mph limits although they may wrongly perceive themselves to be in a minority.



<sup>27</sup> Tapp, A., Nancarrow, C., Davis, A. 2015. Support and compliance with 20mph speed limits in Great Britain, Transportation Research Part F, 31: 36-53.

<sup>28</sup> Tapp, A., Nancarrow, C., Davis, A., Jones, S. 2016. Vicious or virtuous circles? Exploring the vulnerability of drivers to break low urban speed limit, Transportation Research Part A, 91, 195-212.

# 4. Legislation and Policy

## Existing Legal and Policy Frameworks

The Road Traffic Regulation Act 1984<sup>29</sup> ('the Act') gives powers to both national governments and local traffic authorities<sup>30</sup> to set speed limits on roads.

Section 81(1) of the Act states that it is unlawful to drive a motor vehicle on a restricted road at a speed exceeding 30mph. A restricted road in Wales is defined in Section 82 of the Act as a road with a system of street lighting where lamps are placed not more than 200 yards (183m) apart.

Local traffic authorities can set local speed limits on restricted roads which are different to 30mph and can also change roads from de-restricted to restricted (and vice versa)<sup>31</sup> by making Traffic Regulation Orders (TROs) under powers given to them by the Act. Speed limits may be permanent or apply only at certain times.

The legal requirements for signing speed limits are set out in the Traffic Signs Regulations and General Directions 2016 (TSRGD).<sup>32</sup> These provide for the placing of the familiar speed limit signs shown in Figure 1 both where the limit changes (terminal signs) and smaller signs to remind drivers of the limit applying to a stretch of road (repeater signs).

**Figure 1: 20mph speed limit sign (TSRGD Diagram 670)**



Figure 2 shows a further sign which defines a 20mph zone, which may only be placed where no part of the road to which the speed limit applies is more than 50 metres from a traffic calming feature such as road humps. The legal definition of a traffic calming feature also includes a standard repeater sign, however.

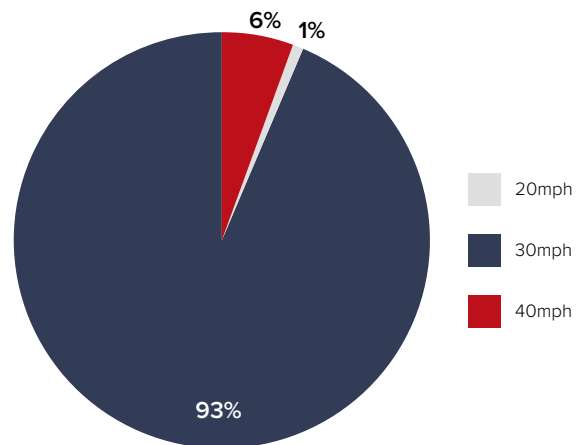
**Figure 2: 20mph zone sign (TSRGD Diagram 674)**



Welsh local authorities have implemented many 20mph zones and limits over recent years, although these have tended to be fairly small, typically a self-contained residential area away from a main road. Some authorities such as Cardiff Council have introduced 20mph limits across large parts of their urban area with further extensions being planned, however.

It will be seen from Figure 3 below that 20mph limits currently make up only around 1% of the total road network in built up areas of Wales (taken as the total of 20mph, 30mph and 40mph limits).

**Figure 3: Road Lengths (km) in Wales by Speed Limit (20mph to 40mph)**



Whenever local authorities wish to change the speed limit to 20mph they must make a Traffic Regulation Order (TRO), regardless of whether this is only a single street or a large part of an urban area. These TRO processes are somewhat costly and time consuming, and changes to this process are recommended (see below). Even with these simplifications, however, continuing with this piecemeal and inconsistent approach means it would take very many years, and at significant cost, to achieve the Welsh Government's aim of applying 20mph limits to most residential areas.

<sup>29</sup> [www.legislation.gov.uk/ukpga/1984/27/contents](http://www.legislation.gov.uk/ukpga/1984/27/contents)

<sup>30</sup> All 22 local authorities in Wales are local traffic authorities

<sup>31</sup> Ceredigion Council has

<sup>32</sup> [www.legislation.gov.uk/uksi/2016/362/contents/made](http://www.legislation.gov.uk/uksi/2016/362/contents/made)

## Recommended Changes to Legal and Policy Frameworks

Welsh Ministers have the power under Section 81(2) of the Road Traffic Regulation Act 1984 (the Act) to make an order to increase or decrease the speed limit for restricted roads, which under Section 81(3) is to be made by a statutory instrument (also known as *subordinate legislation*) passed by National Assembly for Wales (now the Senedd or Welsh Parliament).

This simple change should be made to introduce 20mph speed limits on most roads in built up areas in Wales. This will substantially reduce the time and effort needed to effect lower speed limits since it will only be necessary for local authorities to make TROs where exceptions are needed to set higher speed limits<sup>33</sup>. These exceptions will typically be on A and B Class roads with little frontage activity and where people walking and cycling do not need to share space with motor traffic.

**Recommendation 1: The Welsh Ministers should make subordinate legislation under Section 81(2) of the Road Traffic Regulation Act 1984 to reduce the maximum lawful speed of a motor vehicle on a restricted road in Wales to 20mph.**

Section 81(5) of the Act requires Welsh Ministers to consult with the Secretary of State before exercising this power. Discussions have been held with officials of the Department for Transport to inform them of the Welsh Government's intention to change the default speed limit for restricted roads. They confirmed that there is no definition of the form this consultation should take. It was suggested that Welsh Ministers write to the Minister in the Department for Transport with responsibility for road safety once a decision to proceed with the legislative change is made.

The Traffic Signs Regulations and General Directions 2016 (TSRGD) currently prohibit the use of small repeater signs where the speed limit is 30mph and there is a system of street lighting, but permit repeater signs to be used in other situations. Drivers are expected (and also taught when learning) to assume that the speed limit is 30mph on lit roads when there are no signs to the contrary.

Once the default speed limit for lit roads becomes 20mph it is important that drivers' assumptions and expectations are changed. It will therefore be necessary to alter the signing rules in Wales so that repeater signs are not used on 20mph roads with street lighting and are permitted wherever the speed limit is 30mph. Other changes may also be necessary, such as the removal of the need for 20mph zone signs, on the grounds that such special zones are no longer necessary. Welsh Government will need to consider the detailed changes to the signing rules that will be necessary and make the necessary alterations to legislation and guidance.

Welsh Ministers have the power under Section 65(1) of the Act to give general directions to local authorities on the placing of traffic signs, and Section 65(3) states that these shall be exercisable by statutory instrument.

**Recommendation 2: Welsh Ministers should make subordinate legislation under Section 65(3) of the Road Traffic Regulation Act 1984 to give general directions to local authorities on the appropriate placing of speed limit signs, taking into account the change in the default speed limit for restricted roads.**

## Simplification of Traffic Regulation Order Procedures

Traffic Regulation Orders (TROs) are needed to introduce local speed limits or restrict/de-restrict roads, and follow the procedure set out in the Local Authorities' Traffic Orders (Procedure) (England and Wales) Regulations 1996.<sup>34</sup>

These processes are somewhat costly and time-consuming and in 2018 the Department for Transport commissioned GeoPlace to advise how they could be made quicker and more cost-effective.<sup>35</sup>

Geoplace concluded that the current legislation on TROs should be reviewed and this recommendation was echoed in the report of the Transport Select Committee in its review of Pavement Parking in England<sup>36</sup>. In its response DfT stated that work had begun on this review and that there would be further consultation in due course, but it could not commit to a specific date for bringing forward the necessary legislation.

Although the number of TROs needed to introduce 20mph limits across large areas will be reduced as a result of the legislative changes recommended above it will still save time and costs to simplify the process.

<sup>33</sup> and where 20mph limits are to be applied to unlit roads.

<sup>34</sup> [www.legislation.gov.uk/ukSI/1996/2489/contents/made](http://www.legislation.gov.uk/ukSI/1996/2489/contents/made)

<sup>35</sup> GeoPlace is a Limited Liability Partnership jointly owned by the Local Government Association (LGA) and Ordnance Survey

<sup>36</sup> [www.parliament.uk/business/committees/committees-a-z/commons-select/transport-committee/inquiries/parliament-2017/pavement-parking-17-19/](http://www.parliament.uk/business/committees/committees-a-z/commons-select/transport-committee/inquiries/parliament-2017/pavement-parking-17-19/)

TROs are also used for other purposes, for example restricting the movements of HGVs in residential areas, implementing parking restrictions and restricting traffic for the purposes of parades, street parties and other events etc. A similar recommendation has been made in the report of the Pavement Parking Task Force.

**Recommendation 3: Welsh Government should undertake a review of the relevant legislation to identify how the Traffic Regulation Order process in Wales can be simplified.**

## Other Legislative Issues

The Task Force has identified a number of other pieces of legislation that may need to be revised to reflect the change in the speed limit for restricted roads, which are listed in Appendix D. Amending this legislation is not considered critical to the roll-out of default 20mph limits, however.

In some cases the local authority has de-restricted roads and introduced 30mph limits by TRO. The change in the default speed limit for restricted roads will therefore not affect the speed limit on these roads and it will be necessary to either remove the de-restriction, or introduce 20mph limits, via a new TRO.

## The Highway Code and Other UK Documents

The Highway Code is the document most people look to for information on how roads should be used, particularly if they are learning to drive. Many of its rules are legal requirements and to disobey them constitutes a criminal offence. These rules are indicated by the use of the words MUST or MUST NOT. Other rules are advisory but may be used in evidence in any court proceedings.

The Highway Code contains a number of references to speed limits and it is essential that road users across the UK, particularly in border areas, are given clear information on the rules that will apply in Wales after the default speed limit on lit roads changes.

This will require the Highway Code to be amended, possibly in the form of a Wales addendum. The rules which deal with speed limits that will need to be addressed are set out in Appendix E. Similarly, amendments will be necessary to deal with the introduction in Wales of civil enforcement against pavement parking, which is also proposed by Welsh Government.

The format, content and timing of these changes will need to be agreed with the Department for Transport, which is responsible for publishing the Highway Code. The Driver and Vehicle Standards Agency, an executive agency sponsored by the Department for Transport responsible for driver training and testing, should also be consulted.

There will be implications for other policy and guidance documents that apply across the UK which will also need to be reviewed. The Task Force has identified those listed in Appendix D.

**Recommendation 4: Welsh Government should work with the Department for Transport to amend relevant UK policy and guidance documents and in particular the Highway Code to inform road users of the 20mph national default speed limit on roads in Wales with street lighting.**

## Speed Limit Guidance and Other Welsh Government Documents

The current Welsh Government guidance to local authorities on setting local speed limits was published in 2009 as 'Circular 24/2009, Setting Local Speed Limits in Wales'.<sup>37</sup> Although this guidance supports 20mph limits and zones it states that such limits should only be used for 'individual roads or for a small network of roads'. It also states that they should be only used where mean vehicle speeds are 24mph or below or where traffic calming measures are planned.

Circular 24/2009 recommends that speed limits generally are 'self-explaining' (i.e. that drivers understand what the prevailing limit is likely to be from the road's design and context) but in the case of 20mph limits recommends they are 'self-enforcing', and take account of the level of police enforcement required. The implications of extending 20mph limits more widely in Wales on enforcement are discussed in Section 5.

The guidance in Wales pre-dates the Department for Transport's current equivalent guidance for English local authorities, which was revised in 2013.<sup>38</sup> That document notes that 20mph limits are increasingly being applied to larger areas and makes reference to their application to most streets in Portsmouth. This was an early example of the positive outcomes of large-scale 20mph limits.

Welsh Government is already committed to revising Circular 24/2009 and this should be done on the basis that 20mph is now the default limit for restricted roads, not the exception. The references to 20mph limits only being appropriate where existing speeds do not exceed 24mph should also be removed. While it will be desirable for roads to be self-enforcing it will need to be recognised that this will not be achievable in most places and that traffic calming and other engineering solutions should be targeted at locations where speeds remain unacceptably high after other means of reducing them have been applied. This graduated approach is discussed further in Section 6.

Each local authority across Wales will need to review the roads in its settlements to identify which routes should be made exceptions to the default 20mph limit, which will be a substantial task. This process and the factors to be taken into account by local authorities will also need to be set out in the revised guidance. This should refer to and be integrated with the GIS tool being developed by TfW, which is discussed below.

<sup>37</sup> gov.wales/setting-local-speed-limits

<sup>38</sup> www.gov.uk/government/publications/setting-local-speed-limits

The Task Force has identified a number of other guidance and technical standards that may need to be revised to reflect the change in the speed limit for restricted roads, which are listed in Appendix D.

**Recommendation 5: Welsh Government should amend relevant policy and guidance documents and in particular its Setting Local Speed Limits guidance to advise local authorities on selecting the appropriate speed limit in the light of the changed legislation.**

### Exceptions Process

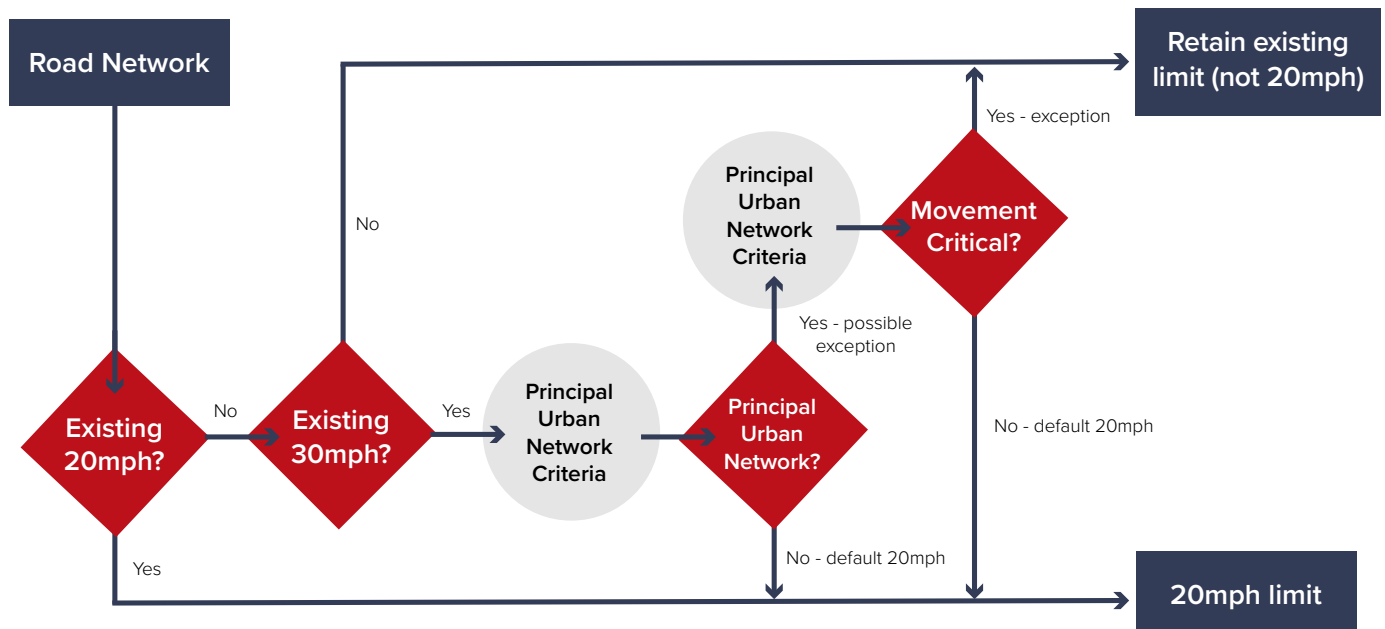
It will not be appropriate to place a speed limit of 20mph on all existing 30mph roads. On well-engineered routes that are principal corridors for movement, where there is little frontage development or community activity and where pedestrians and cyclists do not need to mix with motor vehicles it will often be appropriate to retain the existing limit. Where lit, such routes need to be made exceptions to the default limit of 20mph and a TRO will be required. As with all speed limits, 30mph exceptions could be part time if the local authority considers this to be appropriate.

The overall process by which exceptions should be identified is shown in Figure 4 below.

The starting point will be the road network across a local authority area. At the first decision point all existing 20mph limits and zones are identified, including any that are part-time. These should normally be retained as 20mph limits without the need for further review.

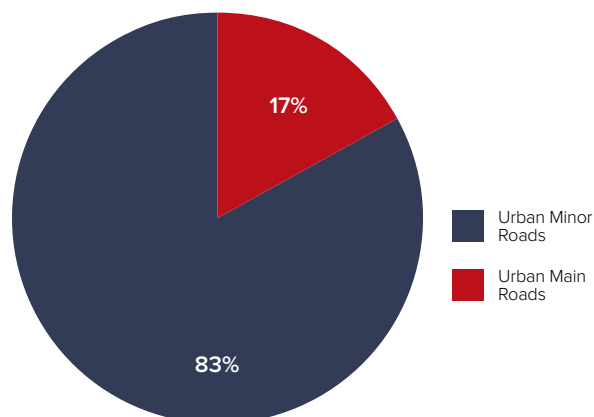
Although it will be open to local authorities to review speed limits generally, as a minimum it will only be necessary to consider roads that are currently subject to a 30mph limit, either because they are restricted roads with street lighting or by means of a TRO. It is assumed that existing speed limits of above 30mph will remain unchanged, although it may be necessary to introduce short lengths of higher speed limits (e.g. 40mph) where high speed roads lead directly into 20mph limit areas. The treatment of these buffer zones is discussed in Section 6.

**Figure 4: Exceptions Process**



To further simplify the task a two-stage sieving process is then proposed. A set of criteria should be developed to identify the 'Principal Urban Network' (PUN), as a sub-set of the 30mph roads in a local authority area, on the basis that the 20mph limit should normally be applied to all other roads. This will remove some 83% of the urban road network in Wales from detailed consideration, as shown in Figure 5.

**Figure 5: Wales Urban Road Lengths (km)**



The criteria for defining the PUN should be refined and tested through the Pilot Settlements Project (see Section 9) but may include routes that meet one or more of the following criteria:

- Trunk Roads
- Primary Route Network
- A and B Classified Roads
- Abnormal Load Routes
- Motorway Diversion Routes
- Dual Carriageways
- Important Bus/Coach Routes

The PUN in an area will then be assessed in greater detail to determine which sections, if any, should be made exceptions from the default 20mph limit. The proposed approach is to consider both 'Movement' and 'Place' factors for each section of the network. The concept of movement and place functions of streets is described in Manual for Streets<sup>39</sup>.

These factors may include:

- Frontage Land Use (eg residential, retail, education, civic, community)
- Local Community (eg population, deprivation)
- Road Safety and Public Health (eg recorded casualties, noise, air quality)
- Sustainable travel (eg Active Travel Route, walk/cycle flows, bus services)
- Motor traffic (speed limit, speed, volume, composition)
- Road layout (geometry, cycling provision, crossings)

Local authorities are already advised in the Welsh Governments current guidance on setting speed limits (Circular 24/2009) to take such factors into account.

In order to simplify and speed up the process of deciding on exceptions TfW was asked by the Task Force to investigate how a GIS tool could be developed which draws on Wales-wide data sets to produce a series of draft maps identifying where exceptions could be justified.

The resulting demonstration draft of the tool was based on the flow chart and took into account (as far as possible) the draft criteria set out above. It used A and B classified roads to define the PUN and considered:

- existing speed limits
- proximity to sensitive locations, such as schools, colleges, nurseries and community centres; and
- density of residential and/or retail premises fronting onto the road

to determine whether exceptions to the default 20mph limit should be considered.

Draft maps showing future speed limits were produced for four demonstration areas: Gwynedd, Rhondda Cynon Taf, the A470 north-south trunk road corridor, and the A458-A483-A489-A470-A44 east-west route between Shropshire and Aberystwyth. Feedback on these maps from the relevant authorities was generally positive, with officers confirming that a set of consistently-produced maps would simplify and speed up the identification of exceptions.

An example of one of the draft maps, but without the standard OS mapping background, is shown in Figure 6 below.

<sup>39</sup> assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/341513/pdfmanforstreets.pdf



Figure 6: Example Draft Map of Future Speed Limits



Further details of the development of the GIS tool are given in Appendix C.

This tool should be developed and finalised through the proposed Pilot Settlements Project to assist local authorities in developing the proposed changes to local speed limits. The tool will need to be integrated with the proposed revision to the Welsh Government’s guidance to local authorities on setting local speed limits.

**Recommendation 6: Transport for Wales should further develop and finalise its GIS tool for identifying potential exceptions to the national default 20mph speed limit for restricted roads. This tool should take into account both the Place and Movement functions of each section of street/road. It should be trialled and refined through the Pilot Settlements project (see Recommendation 18).**

The GIS tool and the resulting maps will be a useful starting point in defining exceptions, but local authorities will still need to engage carefully with stakeholders when producing the final draft TROs. The process of local consultation is discussed further in Section 7.

# 5. Enforcement

## Existing Policies and Practice

GoSafe<sup>40</sup> (the Welsh Road Casualty Reduction Partnership) carries out speed limit enforcement in Wales using fixed and mobile speed cameras. GoSafe's operations are well established and provide support to communities where there is evidence of collisions, speeding and for operational reasons (e.g. anti-social driving). Most proactive enforcement of speed limits in Wales is carried out by GoSafe.

GoSafe's policy is to select 'core' camera sites and routes with the primary aim of reducing Killed and Serious Injury (KSI) casualties, although they may also be chosen on the basis of concerns expressed by communities. Camera sites are between 0.4km and 2km in length while routes may be up to 20km long.

The selection criteria for new camera sites and routes are primarily based on the prior number of KSIs and the free flow 85th percentile speed at the site. Fixed speed cameras are used at sites with the highest number of KSIs while mobile cameras are used at sites with a lower number of casualties. Average speed cameras may be used to enforce speed limits on routes.

The Welsh Police forces also enforce speed limits and are not restricted by these policies. They may carry out enforcement in any location and at any time.

Neighbourhood Policing Teams across Wales operate Community Speedwatch, which consists of a group of volunteers who are issued with high-visibility jackets and signs. Operational support is provided by GoSafe staff who assist with coordinating requests, health and safety risk assessments, vetting of volunteers and training. The registered keepers of vehicles seen exceeding the speed limit are sent a letter informing them their vehicle has been recorded. No prosecutions or penalties are received as a direct result of Speedwatch. but if the same registration number is logged three times, the vehicle will be referred to the Police for further investigation.

Proactive enforcement of 20mph speed limits is not currently widespread, because GoSafe's camera sites are targeted at locations with high numbers of KSIs and Welsh Government policy is that 20mph zones and limits should be self-enforcing. GoSafe does operate some 178 camera sites in 20mph limit/zone areas across Wales, but most of these are only active under special schools operations which take place four times per year.

Some Police forces elsewhere in the UK take a more proactive approach to enforcing 20mph limits.

**Avon and Somerset Police** treat 20mph limits in a similar manner to any other speed limit. They publish speed camera locations in advance each week and these regularly include more than fifty 20mph sites out of a total of around 200<sup>41</sup>. Motorists are given a clear and unambiguous message that 20mph limits are both mandatory and enforced. Most non-compliers receive the option of a Speed Awareness Course or a Fixed Penalty Notice. Revenue from administration fees associated with any courses helps fund the enforcement activity.

**West Midlands Police** take a robust approach to enforcement of 20mph limits<sup>42</sup>. Within the WMP Traffic blogsite they say

*"We know 20mph limits are evidently the most important speed limit to our communities, and have the largest potential of any limit to positively affect lifestyle choices and reduce the amount of people killed or seriously injured on our roads, so why not enforce them?"<sup>43</sup>*

**Metropolitan Police** in London are increasing their enforcement of 20mph limits. This includes use of Community Speedwatch and also Junior Speedwatch using school children to educate drivers found speeding in the proximity of schools.

Through such approaches a wider definition of road safety is applied to address public concerns, fears and freedom to choose healthier lifestyles, which is broader than simply casualty reduction, as discussed in Section 3 - i.e. road danger reduction. It should be noted, however, that funding and governance arrangements, as well as the extent and nature of the areas covered, do vary between Police areas across the UK and so the policy and practice of these Police forces may not be appropriate for Wales.

<sup>40</sup> GoSafe is a partnership of Welsh Government, Welsh local authorities and the Welsh Police Forces

<sup>41</sup> [www.avonandsomerset.police.uk/advice/vehicles-and-roads/speeding/speed-camera-information/](http://www.avonandsomerset.police.uk/advice/vehicles-and-roads/speeding/speed-camera-information/)

<sup>42</sup> [west-midlands.police.uk/news/new-20mph-area-rollout-citys-residential-streets-aims-save-lives](http://west-midlands.police.uk/news/new-20mph-area-rollout-citys-residential-streets-aims-save-lives)

<sup>43</sup> [trafficwmp.wordpress.com/2017/06/20/phones-belts-and-20s/](http://trafficwmp.wordpress.com/2017/06/20/phones-belts-and-20s/)

## Future Enforcement Policy and Practice

Committed and effective enforcement is essential to changing driver behaviour through marketing driver compliance, as discussed in Section 7. This will particularly be the case in the early stages of the roll out of the default 20mph limit. Although in future some engineering measures may be provided at problem sites, as discussed in Section 6, most of the new 20mph roads will not be self-enforcing. The evidence is strong that the general public will support increased enforcement (see Section 3).

The policies of the Police and GoSafe are currently focused on reducing casualties, particularly KSIs, but as set out in Section 3 the objectives of introducing extensive 20mph limits go beyond accident reduction to include increasing community cohesion and enabling more people to walk and cycle. These objectives are in line with the Wellbeing of Future Generations Act, which aims to make Wales a better place to live; all public bodies must consider this legislation when making their policies. Achieving these objectives is linked to reducing traffic speeds, initially by a small but worthwhile amount, across all residential areas.

It will therefore be necessary to ensure that the policies of the Police Forces and Go-Safe enable active enforcement to take place beyond those locations where there are high numbers of KSIs.

For the new default 20mph limit to be credible it is essential that the Welsh Police forces give a clear statement that 20mph limits will be enforced in the same way as other speed limits.

The strategic objectives for Police forces are set by the Police and Crime Commissioners. The policies of some Commissioners already focus on safeguarding communities and increasing enforcement of 20mph limits would support this. PACTS has recently produced a report<sup>44</sup> which includes a Recommendation that Police and Crime Commissioners should prioritise policing and road safety in their Police and Crime Plans. However, it should be noted that front line policing numbers are protected and any expansion of capacity for this task would need a thorough review and acceptance from the Commissioners and liaison with the Home Office.

GoSafe's policies are set by Welsh Government and the National Police Chiefs' Council and will need to be reviewed by the GoSafe Steering Group. GoSafe is already committed to reviewing its deployment policies to maximise compliance.<sup>45</sup> Some of GoSafe's existing camera sites and routes will be on 30mph roads which will in future be subject to a 20mph limit, and these could remain in use without the need for further resources

Further work by Welsh Government and the enforcement agencies will need to be carried out to decide the appropriate mix of operations to cost-effectively enforce 20mph limits across Wales. Modelling by GoSafe can predict the demand for enforcement once a comprehensive list of speed limit changes has been prepared, and this should be made initially using the TfW GIS tool.

The pros and cons of the different models of operation have initially been identified and are set out in Appendix F

### Possible Enforcement Options

At this stage it is recommended that a mix of enforcement operations be used, in the priority order shown in Figure 7.

Average Speed Camera enforcement is likely to be the preferred option for through routes. This has the best possible opportunity to maximise compliance and provide road safety benefits<sup>46</sup>.

This will need to be supported by other speed management interventions in line with the overall operating model.

**Figure 7: Hierarchy of Enforcement Operations**



A clear statement of support by Welsh Police forces for the enforcement of 20mph limits will be required to support the behaviour change strategy set out in Section 7.

**Recommendation 7: Welsh Government should work with the Police and Crime Commissioners, the Police and GoSafe to agree how the enforcement regime should be adapted to the widespread application of 20mph speed limits.**

<sup>44</sup> [www.pacts.org.uk/2020/06/roads-policing-and-its-contribution-to-road-safety-report-from-pacts/](http://www.pacts.org.uk/2020/06/roads-policing-and-its-contribution-to-road-safety-report-from-pacts/)

<sup>45</sup> [gosafe.org/blog/2019/june-2019/](http://gosafe.org/blog/2019/june-2019/)

<sup>46</sup> [www.racfoundation.org/research/safety/effectiveness-average-speed-cameras-great-britain](http://www.racfoundation.org/research/safety/effectiveness-average-speed-cameras-great-britain)

## Intelligent Speed Assistance

*Intelligent Speed Assistance* (ISA) uses a speed sign-recognition video camera and/or GPS-linked speed limit data to automatically restrict the speed of the vehicle to the legal limit. ISA systems do not automatically apply the brakes, but simply reduce engine power preventing the vehicle from accelerating past the limit.

For more than a decade, the European Transport Safety Council<sup>47</sup> has been advocating the safety benefits of ISA. The European Union agreed in 2019 to make ISA, along with a number of other vehicle safety measures, mandatory on new models of car<sup>48</sup> sold in the EU from May 2022 and on new versions of models currently on the market. from May 2024.

It is likely that vehicles sold in the UK will feature these systems; the UK's Vehicle Certification Agency (VCA) has stated it intends to adopt the EU rules and car makers are unlikely to produce different vehicles specifically for the UK market. Several car models currently on sale in the UK offer ISA as a standard feature or an optional extra.

Although drivers will be able to override or switch off the ISA system it will automatically be activated every time the vehicle is started. On-board data recorders will log the over-riding of the ISA system and it is possible that in the event of a crash this information could be available to the police and possibly civil lawyers.

ISA will be effective in limiting the speed of vehicles to which it is fitted, which over time will make up an increasing proportion of the national fleet. ISA-fitted vehicles operate as pace cars, reducing the speed of other vehicles behind them, particularly at busy times. ISA systems can also be retrofitted; after a successful trial TfL has committed to introducing ISA across on all buses in London.

ISA should therefore help to progressively reduce the amount of proactive enforcement required, and to a significant degree from around 5 years from now.

**Recommendation 8: Welsh Government should work with the UK Government to secure its commitment to requiring all new motor vehicles sold in the UK to be fitted with Intelligent Speed Assistance, in accordance with the EU's standards and timetable, regardless of the UK's departure from the EU.**

<sup>47</sup> [etsc.eu/intelligent-speed-assistance-isa/](https://etsc.eu/intelligent-speed-assistance-isa/)

<sup>48</sup> Also applies to trucks, buses, vans and sport utility vehicles, but not motorcycles



# 6. Engineering

## Principles

In the past the policy of Welsh Government has been to make 20mph limits and zones self-enforcing through their design, typically by installing traffic calming devices, with the aim being to achieve compliance without the need for enforcement.

The wider extension of 20mph limits to encompass most built-up areas across Wales means that the extensive re-engineering of roads and streets to fully achieve self-enforcement will not be possible, at least for the foreseeable future. Reductions in speed on many roads are likely to be modest but still worthwhile in the short term, with speeds reducing further over time with the gradual normalisation of slower driving through social marketing, backed up with the threat of enforcement.

Some physical measures to reduce speeds will still be necessary but should be targeted at locations where speed and road danger are highest. Low cost techniques that change drivers' perception of the road should also be used first in preference to more costly interventions.

This approach is supported by some highway authorities. As an example, TfL's document 'Achieving lower speeds: the toolkit'<sup>49</sup> refers to the monitoring and staged intervention approach used by the London Borough of Camden:

- Stage one: Enhance signage
- Stage two: Install mobile vehicle activated signs
- Stage three: Undertake 'Community Roadwatch' (the equivalent of Community Speedwatch)
- Stage four: Infrastructure measures such as traffic calming

The TfL toolkit also provides guidance on a number of low-cost interventions such as the removal of road centreline markings that have been demonstrated to reduce average traffic speeds by up to 3.25mph. Centreline removal is supported in the Wales Active Travel Design Guidance, which also notes that it can allow the introduction of cycle lanes by reducing the space provided to motor vehicles. Under the Wales Active Travel Act highway authorities should aim to improve conditions for active travel when any changes are made to the road network.

## Traffic Signs

### General

New and amended traffic signs will be necessary for the revised speed limits to be enforceable.

20mph gateway signs will need to be installed at the start of the new limits, although in many cases these will be at the same locations as existing 30mph signs. Where this is so only the sign face will need to be changed and it may be cost effective to use stickers or plates to alter the signs rather than replace them, depending on the relative costs and design life of the temporary solutions.

No 20mph repeater signs will be permitted on lit roads and any existing signs will need to be removed. On unlit streets with 30mph limits it will only be necessary to replace or overlay the sign face.<sup>50</sup> New repeater signs or road markings will be permitted on 30mph roads.

### Gateways and Buffer Zones

Where the entrance to a 20mph limit is from a high-speed road there are concerns that speeds may be too high for some distance into the 20mph speed limit area. This could be a particular problem for smaller settlements which lie on major roads.

Possible design responses to this problem include a 'gateway' with a stronger visual or physical presence, and/or a 'buffer zone' with a short length of an intermediate speed limit, typically 40mph.

Gateways and buffer zones are already used across Wales but there are variations between different authorities in their design approaches. While it would be inappropriate to have a completely standardised set of solutions there would be some benefit in updated design guidance being produced by Welsh Government to assist local authorities, given that more gateways and buffer zones will be needed as a result of the roll out of 20mph speed limits.

<sup>49</sup> [tfl.gov.uk/cdn/static/cms/documents/achieving-lower-speeds-toolkit.pdf](https://www.tfl.gov.uk/cdn/static/cms/documents/achieving-lower-speeds-toolkit.pdf)

<sup>50</sup> A TRO will be needed to introduce a 20mph limit on an unlit road

## Border Issues

The difference in the default speed limit for lit roads between Wales and England will need to be clearly indicated to drivers at the border. Similar signs are used at other national borders to inform drivers of changes in traffic law and signage.

No such signs are authorised at the moment and so Welsh Ministers will need to make a special authorisation and direction to permit local authorities to erect them, using the powers described in Section 3. These signs should be discussed with the Department for Transport.

A more complex issue arises where there are built-up and/or lit roads on either side of the Wales/England border. An example is Saltney, which forms a contiguous built up area with Chester, and where road conditions either side of the border are similar. It would be preferable if the speed limit did not change at the border and close walking will be advisable with the relevant English highway authorities on local speed limits and sign requirements. Signing at the border would need to be included in updated guidance.

## Design Guidance

All of the technical issues associated with designing and signing for 20mph limits should be drawn together in a guidance document, published by Welsh Government and produced in partnership with local authorities, which will accompany the update to Circular 24/2009.

**Recommendation 9: Welsh Government should publish design guidance for local authorities on typical engineering measures that may be required to support lower traffic speeds on restricted roads.**

## Community-Led Placemaking

Local communities can play a very useful role in bringing about low-cost changes to streets to reduce traffic speed and improve their neighbourhood, in partnership with local authorities. This type of place-led intervention has been described under various names; Home Zones<sup>51</sup>, DIY Streets<sup>52</sup>, Community Corners<sup>53</sup> and Tactical Urbanism. TfL has recently published ‘Small Change, Big Impact’, a guide to small-scale and light touch projects that change how streets look and feel.<sup>54</sup>

The benefits of encouraging local people to make such schemes happen goes beyond their physical effects. Most motorised traffic in residential streets is generated by the residents themselves, who will need to choose to drive more slowly. Involving communities in delivering schemes which reduce speeds and enable streets to be used differently will help to normalise the attitude that speeding is antisocial behaviour which should not be tolerated.

**Recommendation 10: Welsh Government should establish a fund for communities to plan, design and implement low-cost changes to their local streets which improve local places, help develop stronger community cohesion and achieve lower traffic speeds; and provide support and accessible guidance to assist them.**

<sup>51</sup> Home Zones are designated by local authorities under Section 268 of the Transport Act 2000

<sup>52</sup> A community-led programme run by Sustrans

<sup>53</sup> [tfl.co.uk/community-corners](https://tfl.co.uk/community-corners)

<sup>54</sup> [content.tfl.gov.uk/small-change-big-impact.pdf](https://content.tfl.gov.uk/small-change-big-impact.pdf)

# 7. Communications and Marketing Strategy

## Principles

Expert advice has been provided to guide the Task Force in recommending a communications and marketing strategy, including a comprehensive independent report prepared by the Wales Centre for Public Policy<sup>55</sup>. The overall aim of the strategy is to change road user behaviour by raising awareness that the default speed limit in built-up areas is 20mph unless signs indicate otherwise.

Whilst communications and marketing can assist with a wide variety of tasks it is recommended that the focus should be on two key priorities – building support amongst residents, and compliance amongst drivers. These can be implemented across phases (Figure 9 below). It will start with a ‘national conversation’ about our residential and high streets and how we might want to rethink their use in which 20mph is the central focus.

Communications will be key in educating the public in the many benefits of 20mph limits. Whilst the road safety benefits are largely understood and may require just ‘awareness raising’, the wider health and community benefits (the chance to increase walking and cycling, to use streets for local community use, etc...) are much less obvious. It is recommended that a sequential set of campaigns progressively build up knowledge and support for the multiple benefits of 20mph limits.

This sequence of campaigns will require integration to be coherent over time in order for it to have impact with the public. It is recommended that a theme similar to Calderdale Council’s communication and marketing for 20mph speed limits ‘Love our Streets’ is adopted as the core brand of 20mph limits for Wales (see Figure 8)

**Figure 8: Image from Calderdale Council’s ‘Love our Streets’ Campaign<sup>56</sup>**



Whilst other themes such as ‘watch your speed’ have merit, they do not communicate the higher-level culture changes that 20mph limits can support. In particular, the word ‘street’ brings out residential roads as places to live, rather than ‘roads’ as places that prioritise car travel. Similarly, messages such as ‘cars are guests’ may help to communicate how priorities for our communities can be rebalanced towards residents by setting boundaries for drivers that they can understand and buy into. Given the strong community identity within Wales, it is also recommended examining the possibility of explicitly connecting ‘Love our Streets’ with a Welsh identity, encouraging pride in the achievement of being a world leader by changing to default 20mph limits.

Unless substantial communications spending on broadcast advertising is available it is vital that communications integrates with other enablers. In particular, there are two important connections to highlight. Firstly, there is the need for close integration of campaigns with extensive community engagement, led by local government. This engagement should be steered by local consultations (including on local street exceptions to 20mph limits as discussed below), that, if done collaboratively, can greatly help public support.

Second, marketing of driver compliance is unlikely to work without committed enforcement by the police and GoSafe, particularly in the early stages of the roll out. The evidence is very strong that the general public will support increased enforcement.

Prudent communications budgets will also concentrate minds in making sure campaigns work as hard as possible. Extensive use of public relations and media stories – with the ‘big story’ being the intention to transform communities for the better – are recommended. Effective use of segmentation will also be sensible – for instance targeting high priority driver groups. There are some aspects of both support and compliance that would benefit from segmented marketing. The target market consists of all drivers driving within Wales, segmented in various ways e.g. demography, interested groups. An illustration is sub-groups by age with particular focus on men aged 17-25 (aggressive youth), 35-55 (bad habits, high mileage), women drivers (busy professionals and/or school run). Finally, online and social media are very efficient at reaching large numbers cost-effectively and helping promote community participation and support.

<sup>55</sup> [www.wcpp.org.uk/publication/20s-the-limit-how-to-encourage-speed-reductions](http://www.wcpp.org.uk/publication/20s-the-limit-how-to-encourage-speed-reductions)

<sup>56</sup> Used with permission of Calderdale Council



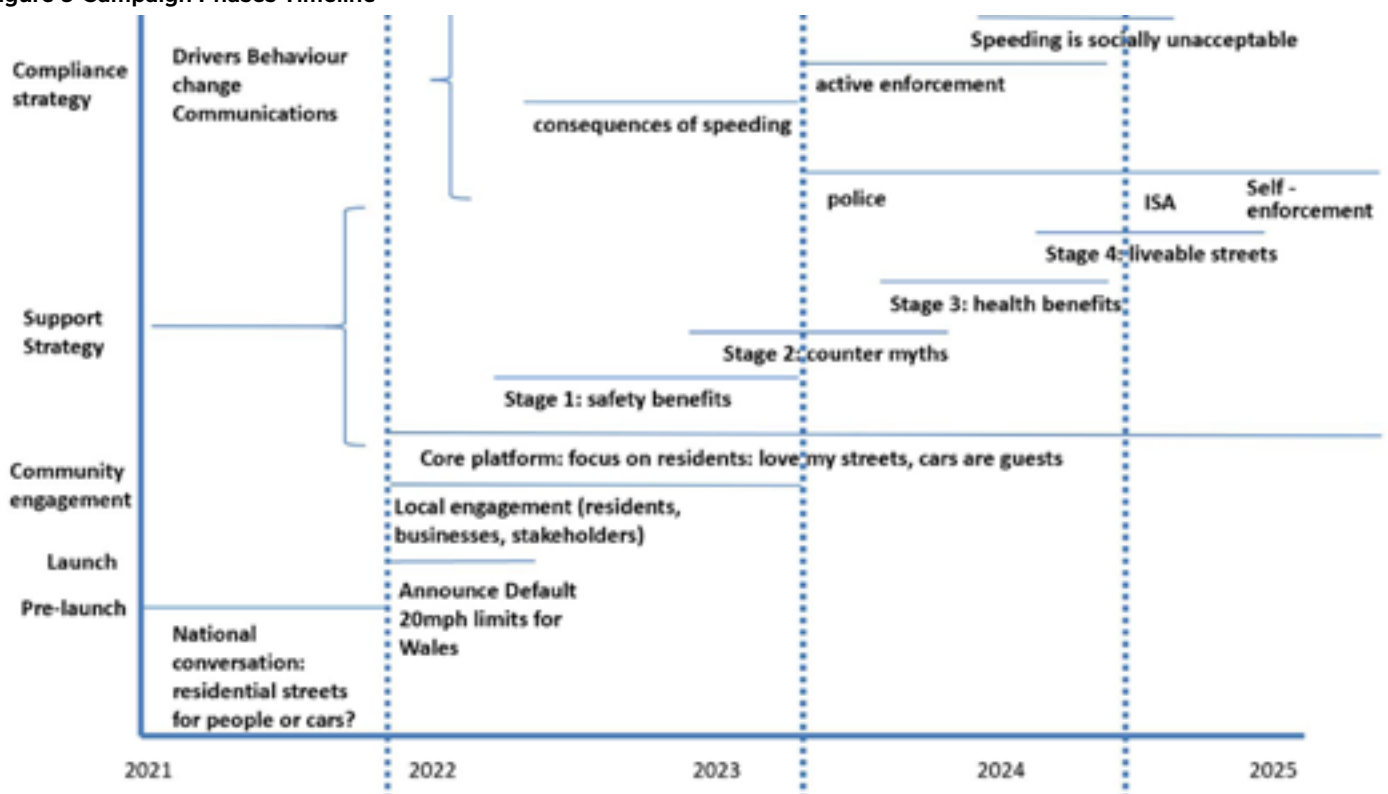
Wales has recent experience in national behaviour change campaigns in organ donation and plastic bag use, and this experience will be helpful. However, default 20mph limits will be more complex not least with the likelihood of opposition (opponents could emerge spontaneously or be highly organised e.g. from ‘pro-car’ lobbying groups), and also possible media hostility. Opponents might make claims about the supposed negative effects of 20mph limits with respect to economic damage, significantly slowing journeys, increased pollution, no public support, etc. It is heartening that the evidence on all these issues is substantially on the side of the Government, but it is important to win the arguments. It is therefore recommended that a proactive approach is taken in campaigning to directly counter opposition claims.

In order to achieve the large drops in speed required to achieve all the desired outcomes of 20mph limits it is recommended that a sophisticated communications strategy based on building social unacceptability for speeding in residential areas is designed, backed up with strong enforcement in the early stages of the launch. The intended introduction of Intelligent Speed Assistance (ISA) for all new cars in 2022 will positively impact on compliance by around 2024 with these new cars increasingly acting as ‘pace cars’ that slow other motor traffic, as discussed in Section 5.

In keeping with the importance of integrating communications with other workstreams, and noting the broader public health and wellbeing aims of government, the creation of parallel streams of communications in building walking and cycling levels is recommended. 20mph limits will be an enabler of these behaviours but is unlikely to create large scale changes on its own. Figure 9 summarises the timeline for the proposed campaigns and its relationship with the legislative process.

In summary, there needs to be a national communications campaign. This will involve a pre-20mph speed limit national conversation and will develop over phases where messages will focus on various aspects of 20mph, including a range of benefits beyond injury reduction, as part of a strategy to increase driver compliance.

Figure 9 Campaign Phases Timeline



## Process

### Qualitative Baseline Data

At the next opportunity questions should be included in the Wales Omnibus Survey to capture data on public attitudes to the widespread adoption of 20mph limits and other relevant qualitative information. This will capture data before the national campaign commences giving a baseline data set and will be used to inform the planning, delivery and evaluation of campaign activity.

Understanding attitudes and opinions will assist with briefing agencies for the national information campaign and the creation of the Welsh Government tool-kit for local authorities (see below). It can also be used for evaluating campaign activity against this data set.

It is proposed that this Omnibus research is also undertaken at the end of the national communications campaign to evaluate its effectiveness in changing attitudes, and at intervals thereafter to assess any changes once the enforcement regime is in operation. Further details of the recommended communications and promotion strategy are given in Appendix G.

**Recommendation 11: Welsh Government should design and conduct an effective communications and promotion strategy, in conjunction with local authorities, to raise public awareness that the national default speed limit for restricted roads is reducing to 20mph and to promote compliance with it.**

Local authorities will be introducing revised speed limits in a way that is suitable for the settlements within their areas, and localised engagement through information and behaviour change campaigns will be needed with specific targeted messaging.

This will enable local public and stakeholder groups to understand how the introduction of the lower default limit for built up areas will affect them. A tool-kit should be provided to local authorities by Welsh Government with an all-Wales campaign identity that can be used across the 22 local authorities. This will ensure a consistent campaign look across Wales but with specific messaging providing information and promoting a call to action appropriate to each area.

Speed limits will be changing across large areas and so it will be impractical to consult directly with every resident in the way that people living within proposed 20mph limits are written to under the existing legal framework. The national message that all residential areas will be changing to 20mph, backed up with maps and information promoted through local channels showing how this will be rolled out in each settlement, should be sufficient to reach most people. The draft proposals for speed limits should be based on the maps produced by TfW from their GIS tool (see Section 4), reviewed by local authorities based on their detailed local knowledge.

Targeted consultation should be carried out with residents and stakeholders (for example bus companies) who have an interest in roads and streets that are on the Principal Urban Network (PUN), which might therefore be suitable for an exception to the 20mph default limit. This will enable authorities to target consultation resources on those roads where there a choice in speed limit needs to be made, although people will also be able to propose exceptions on roads that are not on the PUN if they believe them to be justified.

Formal consultation on the draft TROs needed to enable exceptions to be made will also be required before they can be made, but as noted in Section 3, Welsh Government should explore how the order-making process can be streamlined.

**Recommendation 12: Local authorities should base the proposed changes to local speed limits on the maps produced by the Transport for Wales GIS tool (see Recommendation 6). They should undertake effective consultation with local people and other stakeholders, with a particular focus on those sections of highway that have been identified using the GIS tool as potential exceptions to the 20mph default limit for restricted roads.**

As noted in Section 5, even if only a proportion of vehicles obey the speed limit it will have a significant effect on reducing speeds, particularly at busy times, and will help to normalise the idea that 20mph is an appropriate speed in most built up areas.

A workstream should be established to support a cohort of drivers who will be required to observe speed limits as a condition of their employment. This should focus on fleet and professional drivers, including through existing initiatives and networks e.g. road safety, Corporate Social Responsibility, and carbon and Sustainability. The aim will be to ensure that as many drivers as possible are supported through policies, routine training and awareness programmes of the need to adhere to 20mph limits. Organisations, including bus operators and public sector bodies, should also be encouraged to retrofit ISA systems to their existing vehicle fleets.

**Recommendation 13: Welsh Government should encourage local authorities, transport operators and other public and private bodies to ensure that drivers of their vehicles observe all speed limits through their fleet management policies and systems, including driver training and the use of relevant technology.**

# 8. Monitoring and Evaluation

## Desired outcomes

The principal desired outcomes from the move to a national default 20mph speed limit in residential areas are:

- Reduced vehicle speeds, recognising that compliance will increase over a period of some years
- Less driving for short journeys (under 3 miles)
- More use of active travel modes – in the main this is walking and cycling but could also include scooting and other new forms of micro-mobility (small wheels), and horse riding in rural areas.
- Continued public support – monitored by Wales-specific repeat attitudinal surveys and testing awareness and understanding
- Police public visibility and support for 20mph speed limits

## Principles and Process

Commensurate with the ambition of the proposed 20mph default speed limit for restricted roads there are three overarching objectives:

- Establish a proportionate Monitoring and Evaluation Programme;
- To capture a range of measures of possible change to make a comprehensive assessment of the effectiveness of the 20mph speed limit intervention, both ahead of the implementation of the national 20mph default limit through the Eight Settlements Study (ESS) as part of the Pilot Settlements project (see below) and with monitoring continuing post-implementation
- Ensure a robust governance framework for monitoring and evaluation activity.

Monitoring and evaluation focuses on the measurement and assessment of outcomes and impacts before and after the implementation of an intervention. There is a need to establish monitoring and evaluation approaches as part of the overall planning of the intervention programme.

This should be done at the earliest point possible ahead of the implementation of the 20mph default limit, in order to provide robust baseline data. This increases the likelihood of generating timely and helpful information to assist with post-implementation evaluation. It also minimises the chances of “benefits drift” or “project creep” where the appreciation of what a successful outcome comprises risks changing over the duration of the programme.

Post-implementation monitoring should be maintained for five years to assess any medium-term changes and avoid any short-term natural fluctuations in data to give a representative view of the impacts. Evidence from previous UK schemes has shown that a change from 30mph to 20mph speed limits takes time to bed in and that speed compliance and other sought-after changes in behaviour may be limited in the first two years. The timeline for the nationwide 20mph implementation is illustrated in Figure 9 and sets out how the programme sequentially develops as the ESS is completed.

Evaluation is the assessment of the initiative’s effectiveness and efficiency during and after implementation. It seeks to measure the causal effect of the implementation of the 20mph default speed limit on the desired outcomes and impacts and to assess whether the anticipated benefits have been realised, how this was achieved, or if not, why not.

The Outcomes Evaluation and Monitoring Group (OEMG) of the Task Force identified a range of measures which would be essential or important in an assessment of the implementation of the national programme, to address questions such as ‘how successful has 20mph implementation been in reducing vehicle speeds?’ and ‘What, if any, changes in driver behaviour have there been?’.

It is recognised that it would not be cost-effective to apply a blanket requirement for monitoring and evaluation beyond existing routine data provision across all 22 local authorities. Any additional evidence collection should add value to the existing evidence base in a timely manner in order to avoid the cost of the monitoring / evaluation activity being disproportionate to the size of the initiative or the returns which can be generated by the investment.

Consequently, the Monitoring and Evaluation Programme will firstly rely on routinely-collected data across all local authorities for the five years up to the intervention.

This data will include the minimum of:

- STATS 19 road traffic casualty data which can be analysed by a range of impacts, e.g. on different road users, age groups, and least and most deprived populations
- Speed measurements – 85th percentile and average speeds
- Evidence of changes in travel modes used e.g. for travel to and from schools
- Air quality data collected by local environmental health teams

Collision and casualty data may also be provided by the Police.

**Recommendation 14: Local authorities and the Police should provide routine monitoring data, including on speed, casualties and collisions, and air quality to the Welsh Government in a timely way to contribute to the evaluation of the impacts of the 20mph nationwide programme.**

## Eight Settlements Study

A comprehensive Monitoring and Evaluation Plan requires the establishment of a programme to gather more than the above routine data in order to provide a detailed understanding of the impacts of the default 20 mph speed limit, including on aspects of public policy that extend beyond transport.

The Eight Settlements Study (ESS), comprised of a representative sample of settlements across Wales, two in each region, which will be studied in detail utilising a range of quantitative and qualitative Key Performance Indicators (KPIs) identified by the OEMG (see Appendix H). This will establish a comprehensive monitoring and evaluation plan which will enable many questions regarding 20mph speed limit implementation to be answered. Monitoring should begin ahead of the nationwide 20mph speed limit implementation to gather robust pre-implementation data and to help guide local authorities on any desirable changes to improve outcomes (e.g. strengthen compliance) after the date of nationwide implementation.

Additional data requirements to be gathered through the ESS can be grouped into four main areas:

1. Measurements of compliance with the 20mph speed limit (over a sustained period); comprising speeds driven, together with public perceptions of police enforcement, and any change in driver/pedestrian yield rates at formal crossings
2. Casualties – Overall numbers of casualties by severity (KSI and *Slight*) and also casualty rates for those at increased risk of injury – pedestrians, and cyclists - at the higher speed limit of 30mph. This also includes assessment of pedestrian and cyclist casualties comparing most and least deprived areas and among older adults from age 65+ and again in most and least deprived areas<sup>57</sup>
3. Active travel - Walking & cycling mode share, and as a percentage of trips or legs of multimodal trips, and assessment of changes in walking & cycling school commute
4. Wider economic, environmental, and health impacts - Perception of journey time reliability by car and bus and actual journey times; public perception of any change in air quality and objective measurements; footfall in local shopping centres; and changes in resident social interaction (a health indicator).

The changes in resident social interaction in 4) will be hard to isolate over a relatively short period of time and would be unlikely to show any change in the first 2 or 3 years post implementation. Hence, a minimum of five years will enable the testing of this relationship between any changes in travel behaviour and social interaction.

Each region of Wales should contribute pilot settlements. Early discussions with Cardiff City Council have led to their selection because of their planned 20mph implementation for north Cardiff during 2020/21. Cardiff City, consequently, may commence participation earlier than other settlements.

It will be necessary to gather monitoring data for eight matched control areas, one for each of the eight settlements, to identify the changes in KPIs that are only a result of the reduction in speed limit. Because this is a Wales-wide intervention it will be necessary for the control settlements to be in England, some distance from the Welsh border, and this will require the cooperation of some English local authorities.

## Operational considerations

While some indicators are routinely collected so that no extra costs are incurred for local highway authorities, other indicators will need additional resource for the data to be collected. Given the volume of data which will be required, including from the eight matched control areas, it will be necessary for a dedicated Welsh Government team to be set up to manage the ESS monitoring and evaluation project. The work involved in the additional data capture, collation and analysis should be shared between the participating local authorities and the Project Team.

The Project Team will also have responsibilities for other workstreams needed to deliver the implementation of the national default 20mph limit, as discussed in Section 9.

**Recommendation 15: Welsh Government should undertake a monitoring and evaluation study so that an assessment can be made of the impact and effectiveness of the new default speed limit. This should be initiated through the Pilot Settlements project (see Recommendation 18).**

## Post-Five Years Independent Study

The significance of the change being made in Wales should not be underestimated. While many countries do have de-facto urban/village defaults of 30km/h, no country no country has previously chosen to reduce the default speed limit for urban areas and there will be global interest in learning from Wales' experience.

In view of this, the Welsh Government should commission an independent study at the end of the 5 year period following the implementation of the speed limit change to provide a robust assessment of the programme both in terms of outcomes and process.

**Recommendation 16: Welsh Government should commission an independent study, five years after implementation of the national default 20mph speed limit for restricted roads, to provide an assessment of the programme both in terms of outcomes and process. It should be recognised that the programme is an internationally important intervention in generating data and results, not just for Wales.**

<sup>57</sup> The comparison and contrast of least and most deprived many not be possible in the smaller settlements



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# 9. Implementation

## Overall Programme

A default 20mph speed limit for restricted roads in Wales should be introduced as quickly as possible, with a target date of April 2023 for the change in the law coming into effect. This will achieve a rapid acceleration in achieving lower traffic speeds in communities across Wales, a highly cost-effective intervention that will help to realise several important and overarching policies of the Welsh Government.

The following timetable is considered realistic but will require timely decision-making and commitment by all stakeholders. Further details of the anticipated programme are set out later in this section.

**Recommendation 17: Welsh Government should achieve the following key milestones to enable a 20mph default speed limit on restricted roads to be introduced across Wales by April 2023:**

- **Publication of Task Force Report – July 2020**
- **Ministerial Statement giving the intention to proceed & Plenary Vote to take forward the legislation – July 2020**
- **Pass Statutory Instrument – October 2021**
- **Commencement of Statutory Instrument – April 2023**

## Principal Actions

There is cross-party support in the Senedd for a default 20mph speed limit, as demonstrated in the exchange which took place on 7 May 2019. A ministerial statement in the near future endorsing the findings of this report would show the Government's continued commitment to the project. A plenary vote in the Senedd to take forward the legislation would further cement its intention to proceed.

There is presently strong commitment in national and local government to quickly deliver better conditions for walking and cycling in response to the Covid-19 pandemic. On 7 May 2020 the Deputy Minister wrote to all local authorities inviting them to put forward expressions of interest to introduce temporary measures to benefit sustainable and active travel. Several local authorities have included new 20mph limits as part of their proposals, which at the time of writing are under consideration.

As set out in Section 8, it will be important to undertake more detailed monitoring and evaluation to assess the success of the programme, which should be carried out through the Eight Settlements Study (ESS). The ESS should form part of a wider Pilot Settlements Project (PSP) through which Welsh Government would engage with a small number of local authorities who are committed to 20mph limits. The PSP will Welsh Government develop and refine the guidance, tools and techniques that will need to be used across Wales when the full roll-out takes place. This should build on the momentum created by the ongoing Covid-19-related initiatives and the ministerial statement in response to this report.

**Recommendation 18 - Welsh Government should invite local authorities to express interest in being part of a Pilot Settlements Project to make an early start on the development and refinement of the various processes needed to implement wide-area 20mph limits and to capture and collate a comprehensive data set to evaluate the impacts of the 20mph nationwide programme.**

Making the change to a default 20mph speed limits in most urban areas is simple in legal terms but the ramifications are wide and complex. It should be seen as a major Government project which will need strong and dedicated governance to ensure it is successfully delivered.

A Project Board and Project Team should be established with the authority and resources needed to drive the project through to completion, including the independent post-implementation monitoring and evaluation study. There would need to be revenue support for the team and (to a lesser degree) the board.

The Project Board should include representatives of Welsh Government and local authorities together with other important stakeholders, some of whom should be drawn from the 20mph Task Force Group. It will have oversight and scrutiny of the project, including the preparation of the enabling legislation, guidance to local authorities and community groups, the national and local communications and promotions strategies and the PSP and Eight Settlements study (ESS). The Board should be accountable to Welsh Ministers in ensuring that the spend and outputs are successfully delivered and milestones met. It should be established as soon as possible to oversee the setting up of the PSP and ESS.

**Recommendation 19: Welsh Government should establish a Project Board, drawn from the Task Force Group together with additional members as necessary, to provide direction and oversight of the programme pre- and post-20mph speed limit implementation including for a 5-year post-intervention evaluation period.**

The Project Team will consist of Welsh Government officers to undertake and manage the many tasks needed to deliver the project, including external resources, and liaising closely with local authority partners and the enforcement agencies.

The Project Team should be established as soon as possible following the Minister's statement. It will be responsible for producing updated technical guidance for local authorities on setting speed limits, engineering solutions and the GIS tool, with a programmed completion date of October 2021. These will be developed collaboratively with the local authorities involved in the PSP, as outlined above. During this period the Project Team should also plan and design the national campaign and the tool-kit of resources for local authorities' use and manage the delivery of the pre-legislation campaign.

The making of the necessary statutory instrument has been assumed to take place in October 2021, broadly coinciding with the publication of the updated guidance and tools, so that local authorities can begin to develop their detailed proposals for changing speed limits across their areas as soon as the enabling legislation is in place.

Warm up communications and engagement by local authorities, backed by the national pre-implementation campaign, can begin before the legislation is in place. This will lead into more detailed engagement on draft speed limit maps and the formal consultation process for making TROs, up to the Autumn of 2022. A period of 6 months for the design and implementation of the necessary signing and associated engineering works has been allowed before the Statutory Instrument is commenced and the new speed limits are brought into force.

**Recommendation 20: Welsh Government should establish a dedicated Project Team as soon as possible to lead and coordinate all the necessary tasks required to introduce a 20mph national default speed limit for restricted roads.**

Local authorities will incur significant additional costs in engaging with local communities and stakeholders, planning the speed limit changes and defining exceptions, drafting and making the TROs and designing and implementing the engineering changes including the changes to signs. Transport for Wales has estimated that approximately 10000 new gateway signs will be needed.

Authorities will need to be provided with additional resources to enable them to do this so that the whole of Wales is ready for the change in the law, which has to happen on a single day.

Local authorities will also need to provide data to Welsh Government as part of the monitoring and evaluation programme, as discussed earlier.

**Recommendation 21: Welsh Government should make additional resources available to local authorities to enable them to consult on, design and implement widespread changes in local speed limits and to provide monitoring data**

# 10. Main Findings and Recommendations

## Main Findings

Excessive traffic speed in urban areas is the cause of many road collisions and casualties in Wales, which are still well above the targets set by Government.

Setting a 20mph limit on most urban roads and streets will lead to a significant reduction in road danger, even in the short term when speeds are only likely to drop by a relatively small amount. As drivers become accustomed to the lower limits and slower driving becomes normalised, speed reductions will increase, encouraging more active travel and improving the health of local people and communities.

Introducing a default limit of 20mph for restricted (lit) roads will enable the rapid and substantial expansion in the extent of 20mph limits in a highly cost-effective way. Local authorities will in future only need to identify the many fewer sections of road where a higher speed is justified.

The First Minister has stated that 20mph should be the default speed limit for residential areas across Wales and the Welsh Government should press ahead with this commitment.

The Task Force has agreed the following recommendations to enable this to happen:

## Recommendations

### Legislation and Policy

1. Welsh Ministers should make subordinate legislation under Section 81(2) of the Road Traffic Regulation Act 1984 to reduce the maximum lawful speed of a motor vehicle on a restricted road in Wales to 20mph.
2. Welsh Ministers should make subordinate legislation under Section 65(3) of the Road Traffic Regulation Act 1984 to give general directions to local authorities on the appropriate placing of speed limit signs, taking into account the change in the default speed limit for restricted roads.
3. Welsh Government should undertake a review of the relevant legislation to identify how the Traffic Regulation Order process in Wales can be simplified.
4. Welsh Government should work with the Department for Transport to amend relevant UK policy and guidance documents and in particular the Highway Code to inform road users of the 20mph national default speed limit on roads in Wales with street lighting.
5. Welsh Government should amend relevant policy and guidance documents and in particular its Setting Local Speed Limits guidance to advise local authorities on selecting the appropriate speed limit in the light of the changed legislation.

### Exceptions

6. Transport for Wales should further develop and finalise its GIS tool for identifying potential exceptions to the national default 20mph speed limit for restricted roads. This tool should take into account both the Place and Movement functions of each section of street/road. It should be trialled and refined through the Pilot Settlements Project (see Recommendation 18).

### Enforcement

7. Welsh Government should work with the Police and Crime Commissioners, the Police and GoSafe to agree how the enforcement regime should be adapted to the widespread application of 20mph speed limits.
8. Welsh Government should work with the UK Government to secure its commitment to requiring all new motor vehicles sold in the UK to be fitted with Intelligent Speed Assistance, in accordance with the EU's standards and timetable, regardless of the UK's departure from the EU.



## Engineering

9. Welsh Government should publish design guidance for local authorities on typical engineering measures that may be required to support lower traffic speeds on restricted roads.
10. Welsh Government should establish a fund for communities to plan, design and implement low-cost changes to their local streets which improve local places, help develop stronger community cohesion and achieve lower traffic speeds; and provide support and accessible guidance to assist them.

## Communications and Promotion

11. Welsh Government should design and conduct an effective communications and promotion strategy, in conjunction with local authorities, to raise public awareness that the national default speed limit for restricted roads is reducing to 20mph and to promote compliance with it.
12. Local authorities should base the proposed changes to local speed limits on the maps produced by the Transport for Wales GIS tool (see Recommendation 6). They should undertake effective consultation with local people and other stakeholders, with a particular focus on those sections of highway that have been identified using the GIS tool as potential exceptions to the 20mph default limit for restricted roads.
13. Welsh Government should encourage local authorities, transport operators and other public and private bodies to ensure that drivers of their vehicles observe all speed limits through their fleet management policies and systems, including driver training and the use of relevant technology.

## Monitoring and Evaluation

14. Local authorities and the Police should provide routine monitoring data, including on speed, casualties and collisions, and air quality to the Welsh Government in a timely way to contribute to the evaluation of the impacts of the 20mph nationwide programme.
15. Welsh Government should undertake a monitoring and evaluation study so that an assessment can be made of the impact and effectiveness of the new default speed limit. This should be initiated through the Pilot Settlements Project (see Recommendation 18).

16. Welsh Government should commission an independent study, five years after implementation of the national default 20mph speed limit for restricted roads, to provide an assessment of the programme both in terms of outcomes and process. It should be recognised that the programme is an internationally-important intervention in generating data, not just for Wales.

## Implementation and Programme

17. Welsh Government should achieve the following key milestones to enable a 20mph default speed limit on restricted roads to be introduced across Wales by April 2023:
  - Publication of Task Force Report – July 2020
  - Ministerial Statement giving the intention to proceed & Plenary Vote to take forward the legislation – July 2020
  - Pass Statutory Instrument – October 2021
  - Commencement of Statutory Instrument – April 2023
18. Welsh Government should invite local authorities to express interest in being part of a Pilot Settlements project to make an early start on the development and refinement of the various processes needed to implement wide-area 20mph limits and to capture and collate a comprehensive data set to evaluate the impacts of the 20mph nationwide programme.
19. Welsh Government should establish a Project Board, drawn from the Task Force Group together with additional members as necessary, to provide direction and oversight of the programme pre- and post-20mph speed limit implementation including for a 5-year post-intervention evaluation period.
20. Welsh Government should establish a dedicated Project Team as soon as possible to lead and coordinate all the necessary tasks required to introduce a 20mph national default speed limit for restricted roads.
21. Welsh Government should make additional resources available to local authorities to enable them to consult on, design and implement widespread changes in local speed limits and to provide monitoring data.

# Glossary of Terms

Term	Definition
<b>GIS or Geographic Information System</b>	A Geographic Information System (GIS) is a computer system for capturing, storing, checking, and displaying data related to defined locations.
<b>Intelligent Speed Assistance (ISA)</b>	ISA uses a speed sign-recognition video camera and/or GPS-linked speed limit data to advise drivers of the current speed limit and automatically limit the speed of the vehicle as needed. ISA systems do not automatically apply the brakes, but simply limit engine power preventing the vehicle from accelerating past the current speed limit unless overridden.
<b>KSI</b>	<p>Killed or Seriously Injured (KSI) is a standard metric for road collisions. Killed means a casualty who dies within 30 days after the collision due to injuries received. A Serious Injury is one which does not cause death less than 30 days after the accident, and which is in one (or more) of the following categories:</p> <ul style="list-style-type: none"> <li>(a) an injury for which a person is detained in hospital as an in-patient; or</li> <li>(b) any of the following injuries (whether or not the person is detained in hospital): fractures, concussion, internal injuries, crushings, severe cuts and lacerations, severe general shock requiring treatment; or</li> <li>(c) any injury causing death 30 or more days after the accident;</li> </ul>
<b>Negative Procedure</b>	The negative procedure provides that, after the Welsh Ministers have exercised their power to make subordinate legislation, they must lay it before the Senedd. The Senedd then has a period of 40 days to object to the subordinate legislation. The Senedd does not have to formally approve the subordinate legislation.
<b>PACTS</b>	The Parliamentary Advisory Council for Transport Safety. (PACTS) is a registered charity. It supports the All-Party UK Parliamentary Group for Transport Safety.
<b>Personal Injury Accidents</b>	Road accidents (also referred to as collisions) which are recorded by police forces in Wales at which one or more persons has been injured. While these data are the most detailed and reliable source of information on road collisions and casualties, they do not provide a complete record of all such incidents – for example, hospital, survey and compensation claims data indicate that many non-fatal collisions are not reported to or recorded by the police.
<b>PM2.5</b>	Particulate matter (PM) is a term used to describe the mixture of solid particles and liquid droplets in the air. These are particles with a size (diameter) generally less than 2.5 micrometres (µm).

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Term	Definition
<b>Primary Legislation</b>	The general term used to describe the main laws passed by the legislative bodies of the UK, including Acts made by the Senedd.
<b>Restricted Road</b>	'Restricted roads' are defined by the presence of street lights no more than 183m apart, and which are currently subject to a default speed limit of 30 mph (48 km/h). Most restricted roads are in built-up areas.
<b>Slight Casualty</b>	Any injury which is neither fatal nor serious – for example, a sprain, bruise or cut which is not judged to be severe, or slight shock requiring roadside attention.
<b>Statutory Instrument</b>	See subordinate legislation
<b>Subordinate Legislation</b>	Subordinate legislation can only be made if primary legislation confers a power to do so. In Wales, the Welsh Ministers make subordinate legislation using powers given to them in enabling acts such as Senedd Acts. Subordinate legislation is also referred to as secondary legislation or statutory instruments
<b>Traffic Authority</b>	The organisation that manages a road network, including the 22 local authorities and the Welsh Government for the strategic road network.
<b>Traffic Regulation Order TRO</b>	A legal document that introduces a parking restriction or traffic movement restriction on roads, in line with The Road Traffic Regulation Act 1984

# Appendix A – Organisations Represented on the Task Force

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20s Plenty for Us

Confederation of Passenger Transport UK

Disability Wales

Federation of Small Businesses

Freight Transport Association

Fire and Rescue Service

GoSafe

Guide Dogs

Living Streets

Local Authority Regional Representatives

Police

Public Health Wales

Road Haulage Association

SUSTRANS

University of the West of England (Bristol)

Welsh Government

Welsh Local Government Association

# Appendix B – Further Details of Effect of 20mph Limits on Reducing Traffic Speeds and Casualties

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In early research in 2001 in a trial in Scotland of 20mph (32kph) speed limits at 78 sites the research found reductions in speed and casualties, with killed and serious declining from 20% of the total to 14%. The Consultant's report concluded that such limits offer a low-cost option for promoting road safety.<sup>58</sup> More recent UK evidence from Portsmouth, Warrington, Bristol and Calderdale, among other locations, provides consistent evidence of declining casualties including fatalities post implementation of 20mph speed limits. This does not necessarily mean that speeds driven have lowered to 20mph in free-flowing traffic situations but that the drop has been significant enough to translate into reduced injury severity and likely more near misses. Estimations of declining casualties below are in line and triangulates with the evidence above regarding the relationship between speeds driven and collisions. This means that there is greater confidence that the reported casualty reductions are true and the risk of bias is low.

Atkins (2010) reported an average speed reduction of 1.3mph (in Portsmouth), while other studies reported higher reductions, e.g. Warrington (2010) 1.45mph, Calderdale (2018) 2.0mph and Bristol (2018) 2.7 mph.<sup>59</sup> These differences may be partly the result of the intensity of engagement with the public but other factors may be at work including that city-wide verses selected areas approaches. The Atkins study (2018) also noted that longer-term 20mph schemes which are supported by complementary transport, health, environment and community policy and interventions are likely to deliver greater benefits. Cities which have undertaken considerable marketing and community engagement include Bristol and Calderdale. Of the evidence included in the Atkins study the findings from Brighton are similar to Bristol, where reductions in collisions were observed especially on major strategic roads.<sup>60</sup> Interestingly perhaps, the Bristol (2018) study also found a slight drop in speeds driven on nearby 30mph speed limit roads. This could be due to drivers being be more conscious of their speeds. The City of Edinburgh Council similarly reported slightly lower speeds on neighbouring 30mph roads after implementing their city-wide 20mph speed limit programme.

To date, the Bristol research provides the most thorough analysis of the effectiveness of 20mph in any one locality. It had the minimum of 3 years of post-intervention casualty data for much of the city. The estimated total number of injuries avoided across the city each year is 4.53 fatal, 11.3 serious, and 159.3 slight injuries. Further analysis of Bristol injury data highlights a general reduction in injuries and suggests evidence of a city-level reduction in fatalities of 63%.<sup>61</sup> These findings are in line with the reductions of injuries in Brighton City Centre, where a similar area-wide (but not city-wide) scheme has been implemented. The city-level reduction of fatal injuries identified in the Brighton study showed that nationally the number of deaths on built-up roads has increased from the 2010–2014 annual average of 585 to a 2017 figure of 607 deaths. Similarly, Calderdale Council predicted reduction a three year average reduction of 103 casualties (40%) based on date for 2.5 years.

<sup>58</sup> Burns, A, Johnstone, N., Macdonald, N. 2001. 20mph speed reduction initiative. Edinburgh: Scottish Executive Central Research Unit.

<sup>59</sup> Davis, A. 2018

<sup>60</sup> Pilkington, P., Bornioli, A., Bray, I., Bird, E. 2018. The Bristol Twenty Miles Per Hour Limit Evaluation (BRITE) Study, Bristol: University of the West of England.

<sup>61</sup> Bornioli et al 2020. Effects of city- wide 20 mph (30km/hour) speed limits on road injuries in Bristol, UK. *Injury Prevention*, 26: 85–88

# Appendix C – Draft Exceptions Tool and Journey Time Modelling

Transport for Wales (TfW) has developed a GIS (Geographical Information Systems) tool to automatically identify which sections of road might be excepted from a default 20mph speed limit based on a pre-defined set of criteria relating to:

- Existing road classifications
- Existing speed limits
- Proximity to sensitive locations, such as schools, colleges, nurseries, community centres
- Density of residential and/or retail premises fronting onto the road

A demonstration draft of the GIS tool has been applied to prove that the tool works and to prove that it can be used relatively easily and applied cost effectively to the whole of Wales, producing clear and meaningful outputs.

The outputs can be made available in either a standard GIS shapefile format, which is readable by commonly used GIS software, or as a series of pdfs.

## Demonstration draft

A first (demonstration) draft of the GIS tool has been applied to the whole of Wales, with a focus and further refinement in four demonstration areas: Gwynedd, Rhondda Cynon Taf, A470 north-south trunk road corridor, and the A458-A483-A489-A470-A44 east-west route between Shropshire and Aberystwyth.

The following assumptions and criteria were applied in the demonstration draft, but can be amended easily in the future:

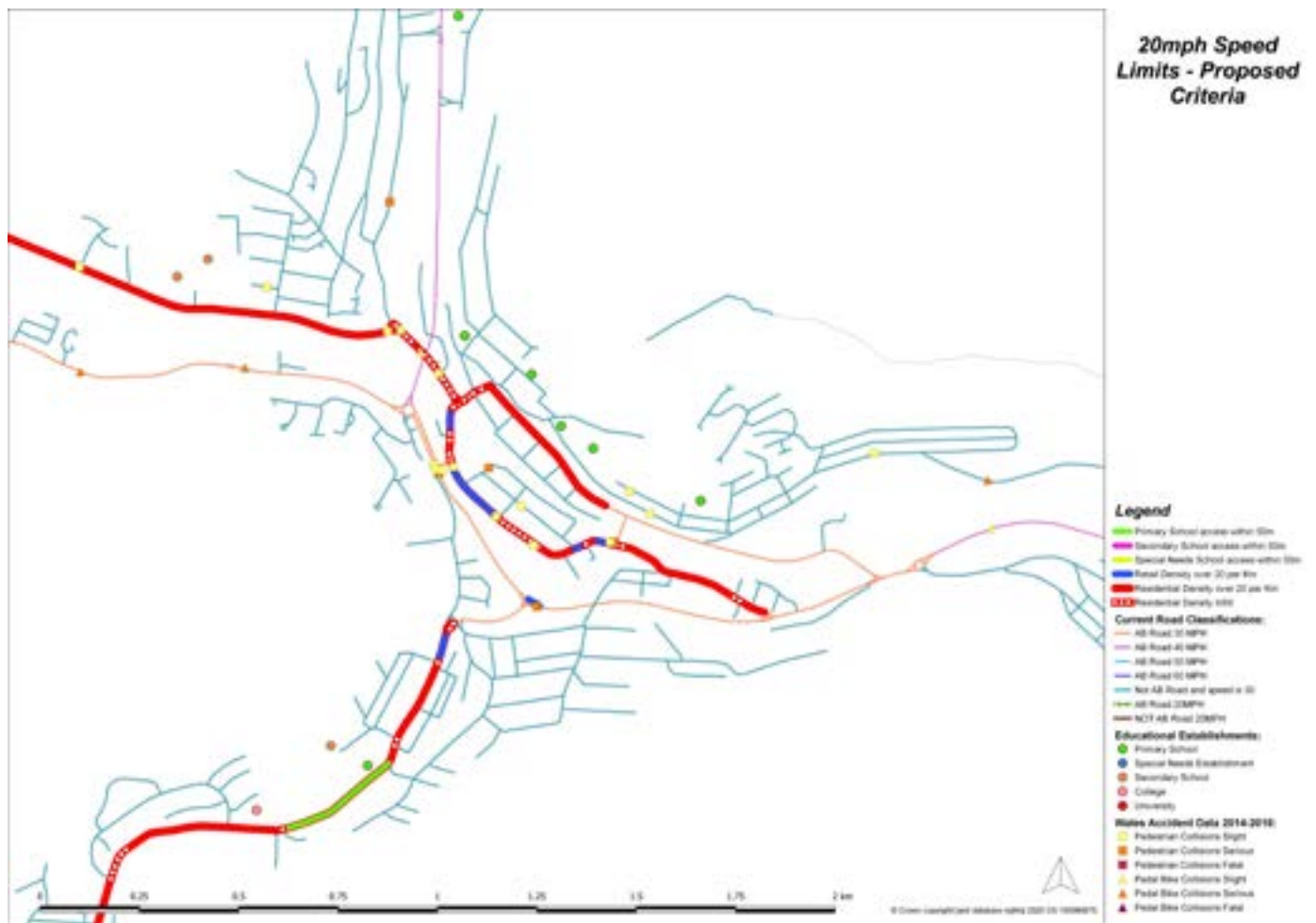
- Roads with existing speed limits of 40mph and above are assumed to remain at their existing speed limit
- Roads with existing speed limits of 20mph are assumed to remain at 20mph
- Unclassified 30mph roads are assumed to default to 20mph
- A/B classified 30mph roads are identified as potential exceptions to the default 20mph and have then been assessed according to a set of 'place' criteria. The 'place' criteria identify which sections of A/B classified 30mph roads should also default to 20mph:
  - Within a defined distance of a school (100 metres used in the demonstration draft)
  - Where the number of residential premises along the road exceeds a defined density (equivalent to 20 addresses per kilometre in the demonstration draft)
  - Where the number of retail premises along the road exceeds a defined density (equivalent to 20 addresses per kilometre in the demonstration draft)

A manual adjustment was then applied to the focus areas, in order to remove short gaps of exception 30mph road between default 20mph limit roads. For the demonstration draft, short gaps were defined as those of up to 300 metres.

An example of the outputs produced, but without the standard OS mapping background, is shown in Figure 1. In this example, 20mph coverage can be identified by combining:

- Existing 20mph roads
- Unclassified 30mph roads (which would default to 20mph), shown as thin turquoise lines
- Stretches of A/B classified 30mph roads which meet the 'place' criteria and which would therefore also default to 20mph, shown as various emboldened coloured lines depending on the criteria met.

Figure 1



Possible exception roads, which currently have a 30mph limit and would then remain at 30mph by traffic regulation order, are shown as thin orange lines in Figure 1.

A review of the demonstration draft outputs has highlighted some potential amendments needed to the criteria set, including adjacent to universities, community centres and on stretches of road where the combination of residential and retail premises exceeds the defined density. It is expected that the full criteria set would be formally agreed as part of the next stage of work.

While a suitable GIS tool will be available and applied consistently to the whole of Wales, and it may be possible to refine the tool further using additional data sets, there will always be a need for local knowledge to be applied, as the importance of a place cannot always be defined through quantitative measures alone.

## Datasets required

TfW has made use of the following datasets in preparing the GIS tool demonstration draft:

- Ordnance Survey mapping and datasets obtained through the Public Sector Geospatial Agreement (PSGA):
  - OS MasterMap Highways, for road classifications
  - AddressBase, for property locations and classifications (including education, retail, residential)
- OS MasterMap Highways Network – Average Speed and Speed Limits layer, purchased as an annual licence at a cost of £5,000 per annum for a dataset covering the whole of Wales. This dataset is updated annually.
- StatsWales road accident data for the last five full years, for use in additional analyses

It is understood that information applied to the GIS tool from these datasets can be shared with other public sector authorities in Wales.

## Additional Analyses

The GIS tool developed by TfW can be used to undertake additional analyses on the expected impact of the change to a default 20mph limit. To date this has included:

- Comparing existing average speeds to the speed limit on sections of road that would be changing to 20mph, in order to estimate the change in off-peak journey time on a linear route. The estimates assumed that vehicles would be travelling at a maximum speed of 20mph where the new limit applies. Four examples have been calculated using the demonstration draft:
  - A470 from Cathays Park to Llandudno: 5-minute (1.9%) off-peak journey time increase
  - A458-A483-A489-A470-A44 east-west route between the Wales/England border and Aberystwyth: 30 seconds (0.3%) off-peak journey time increase
  - Route followed by the 132 bus between Maerdy (RCT) and Cardiff city centre: 5 minute (6.7%) off-peak journey time increase
  - Route followed by the 12 bus between Rhyl and Llandudno: 2-minute (3.3%) off-peak journey time increase
- Identifying the number of locations where the new 20mph limit (whether on a current 30mph unclassified road or a current 30mph A/B road) would stop abruptly at the England/Wales border. Based on the demonstration draft, the number of locations is 35.



# Appendix D – Legislation, Standards and Guidance with Potential Changes Required

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## Legislation

Road Traffic Regulation Act 1984 (as amended)

Traffic Signs Regulations and General Directions 2016

The Highways (Road Humps) Regulations 1990

The Road Vehicles Lighting Regulations 1989

New Roads and Street Works Act 1991

## Guidance

Setting Local Speed Limits in Wales, 2009

Traffic Signs Manual Chapters 1, 3, 5 & 7

Highway Code

Manual for Streets

## Standards

DMRB applies to trunk roads and the basis of the geometric design relates to higher speed strategic routes. There is no design speed for 20mph routes in the DMRB and so various sections of the publication would need to be addressed for sections of trunk roads which have a 20mph limit.

# Appendix E – Highway Code Rules and Draft Changes

Rule	Current Wording	Draft Change Required for Wales																																								
113	<p>113. You <b>MUST</b></p> <ul style="list-style-type: none"> <li>ensure all sidelights and rear registration plate lights are lit between sunset and sunrise</li> <li>use headlights at night, except on a road which has lit street lighting. These roads are generally restricted to a speed limit of 30 mph (48 km/h) unless otherwise specified</li> <li>use headlights when visibility is seriously reduced (see Rule 226).</li> </ul> <p>Night (the hours of darkness) is defined as the period between half an hour after sunset and half an hour before sunrise).</p>	<p>Speed limit in second bullet to state 20mph (32km/h) in Wales.</p>																																								
124	<p>124. You <b>MUST NOT</b> exceed the maximum speed limits for the road and for your vehicle (see the table below). The presence of street lights generally means that there is a 30 mph (48 km/h) speed limit unless otherwise specified.</p>	<p>Reference to speed limit in second sentence to state 20mph (32km/h) in Wales.</p>																																								
Speed limit table	<table border="1"> <thead> <tr> <th>Speed Limits</th> <th>Built-up areas*</th> <th>Single carriageways</th> <th>Dual carriageways</th> <th>Motorways</th> </tr> <tr> <th>Type of vehicle</th> <th>mph (km/h)</th> <th>mph (km/h)</th> <th>mph (km/h)</th> <th>mph (km/h)</th> </tr> </thead> <tbody> <tr> <td>Cars &amp; motorcycles (including car derived vans up to 2 tonnes maximum laden weight)</td> <td>30 (48)</td> <td>60 (96)</td> <td>70 (112)</td> <td>70 (112)</td> </tr> <tr> <td>Cars towing caravans or trailers (including car derived vans and motorcycles)</td> <td>30 (48)</td> <td>50 (80)</td> <td>60 (96)</td> <td>60 (96)</td> </tr> <tr> <td>Buses, coaches and minibuses (not exceeding 12 metres in overall length)</td> <td>30 (48)</td> <td>50 (80)</td> <td>60 (96)</td> <td>70 (112)</td> </tr> <tr> <td>Goods vehicles (not exceeding 7.5 tonnes maximum laden weight)</td> <td>30 (48)</td> <td>50 (80)</td> <td>60 (96)</td> <td>70† (112)</td> </tr> <tr> <td>Goods vehicles (exceeding 7.5 tonnes maximum laden weight) in England and Wales</td> <td>30 (48)</td> <td>50 (80)</td> <td>60 (96)</td> <td>60 (96)</td> </tr> <tr> <td>Goods vehicles (exceeding 7.5 tonnes maximum laden weight) in Scotland</td> <td>30 (48)</td> <td>40 (64)</td> <td>50 (80)</td> <td>60 (96)</td> </tr> </tbody> </table> <p>*The 30 mph limit usually applies to all traffic on all roads with street lighting unless signs show otherwise.</p> <p>†60 mph (96 km/h) if articulated or towing a trailer.</p>	Speed Limits	Built-up areas*	Single carriageways	Dual carriageways	Motorways	Type of vehicle	mph (km/h)	mph (km/h)	mph (km/h)	mph (km/h)	Cars & motorcycles (including car derived vans up to 2 tonnes maximum laden weight)	30 (48)	60 (96)	70 (112)	70 (112)	Cars towing caravans or trailers (including car derived vans and motorcycles)	30 (48)	50 (80)	60 (96)	60 (96)	Buses, coaches and minibuses (not exceeding 12 metres in overall length)	30 (48)	50 (80)	60 (96)	70 (112)	Goods vehicles (not exceeding 7.5 tonnes maximum laden weight)	30 (48)	50 (80)	60 (96)	70† (112)	Goods vehicles (exceeding 7.5 tonnes maximum laden weight) in England and Wales	30 (48)	50 (80)	60 (96)	60 (96)	Goods vehicles (exceeding 7.5 tonnes maximum laden weight) in Scotland	30 (48)	40 (64)	50 (80)	60 (96)	<p>Column added to state speed limit for all types of vehicle in built-up areas in Wales is 20mph (32km/h) and note (*) similarly amended.</p>
Speed Limits	Built-up areas*	Single carriageways	Dual carriageways	Motorways																																						
Type of vehicle	mph (km/h)	mph (km/h)	mph (km/h)	mph (km/h)																																						
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Rule	Current Wording	Draft Change Required for Wales
152	<p>Residential streets. You should drive slowly and carefully on streets where there are likely to be pedestrians, cyclists and parked cars. In some areas a 20 mph (32 km/h) maximum speed limit may be in force. Look out for</p> <ul style="list-style-type: none"> <li>• vehicles emerging from junctions or driveways</li> <li>• vehicles moving off</li> <li>• car doors opening</li> <li>• pedestrians</li> <li>• children running out from between parked cars</li> <li>• cyclists and motorcyclists.</li> </ul>	<p>Second sentence to refer to 'and most areas in Wales'.</p>

# Appendix F – Pros and Cons of Different Models of Speed Enforcement

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## Police Enforcement

The pros and cons of enforcement by the Police are:

### Pros

- Can detect other moving traffic offences and deal with other offences such as no insurance – disrupts criminals using the road
- Risk based deployment means a focus on where it is needed most
- Community based policing supports buy-in and acceptability goals of enforcement
- Public prefer to see a police presence
- Signifies positive collaboration between police and Welsh Government

### Cons

- Comparatively expensive to other models
- Existing resource levels do not allow for widespread deployment – resources may be moved to match demand as risk profile of force changes unless officers are “ring fenced”
- Inconsistent resource levels across Wales at present
- May affect core policing numbers for forces, which even if funded may incur resistance
- Other employment “on costs” such as training, HR/IT support, Equipment (ppe/body worn video) will apply

## GoSafe Mobile (van/motorbike)

GoSafe mobile units are well established and are the primary means of speed limit enforcement across Wales. Each of the mobile enforcement teams is supported by a data analyst who work within their respective police forces and can respond to requests for enforcement from communities and link in with their roads policing teams to identify collision trends.

### Pros:

- Well established partnership arrangement
- Civilian enforcement staff with delegated powers cost less than police constables
- Can detect mobile phone use, seatbelt offences and dangerous driving in addition to speeding
- Efficiencies of scale with back-office processing
- 20mph operations outside schools has been established since 2012
- Guidance/site selection document can be easily expanded to consider risk factors in 20's
- Welsh Government are a funding partner

### Cons:

- Parking van in communities can present issues due to the size of vans and restrictions related to on-road parking. Motorcycles/handheld units are an option but are not available in inclement weather
- Current capacity will need to be increased to enable deployment into 20mph limits on a routine basis, requiring further investment
- Compliance with speed limit lower at mobile sites than for fixed cameras due to comparatively short enforcement time

## Fixed Average Speed Cameras



Fixed cameras are now able to be adapted to fit on street lighting columns in an environmentally sympathetic way. With the advent of digital technology, offences are able to be transmitted to the back offices remotely.

### Pros

- Highest possible levels of compliance
- After capital outlay, ongoing revenue costs to process offences are low compared to mobile
- Low environmental impact
- Most effective for road safety
- 24/7 enforcement
- Multiple schemes can feed into one back office server
- No enforcement staff – automated process
- High level public acceptance

### Cons

- High capital outlay
- Ongoing revenue cost – need to consider options from manufacturers who do not require amendments to road surface (loops/paint) – these cameras also incur costs for:
  - Annual maintenance and calibration
  - Transmission/communication costs
  - Software licences
  - Back office servers

## Community Speed Watch

Wales has a coordinated Community Speed Watch (CSW) scheme which has been established since 2014.

### Pros:

- Community owned interventions are well received
- Offending motorists are given opportunity to correct behaviour without criminal sanction
- Coordinated across Wales means consistent, cost effective approach
- Link to GoSafe offers opportunity to deploy supportive enforcement where prolific/consistent offenders are identified (Operational site)
- Low cost but effective

### Cons:

- CSW teams need to purchase own radar/laser
- CSW teams only work in hours of daylight
- Commitment of teams in inclement weather can vary
- Requests for CSW do not tend to present in areas of social deprivation

# Appendix G – Communications and Promotion Strategy

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## OASIS model

The Government Communications Service model should be used to plan, deliver and evaluate the national campaign. Local authorities should also be asked to follow this model in delivering their local campaign activity.

The five-stage model covers Objectives; Audience/Insight; Strategy/Ideas; Implementation; Scoring/Evaluation; and is widely recognised as best practice. This should be followed in developing the communications and promotion strategy.

## Ministerial Announcements

Ministers should make announcements at key stages in the process to raise awareness that the default speed limit for roads with street lighting is being reduced to 20mph. The first statement should be made responding to the publication of this report.

Further statements should follow during the passage of the subordinate legislation through the Senedd with a final Ministerial event to announce its approval and the timeframe for commencement.

## Operational and Campaign Details

An agency/agencies should be procured to develop and deliver a creative campaign with a strong identity and to develop a suite of messages and creative executions to run through the phases.

Subject to proposals from agencies, this is likely to be a fully integrated marketing campaign including national advertising on TV; radio; press and outdoors; PR activity; on-line and social media; Ministerial announcements (see above); plenary debates and media relations.

### • Phase 1 – Pre Legislation Campaign

- National Conversation/consultation about 20mph and benefits
- Announce legislation and why; focussing on benefits
- Awareness and initial benefits such as safety and nuisance

### • Phase 2 – Pre-Implementation Campaign

- Building support and awareness
- Countering myths and overcoming doubts
- Local authorities local engagement regarding 20mph exceptions, supported by local comms and marketing activity

### • Phase 3 – Post Implementation Campaign

- Legislation Live Date and early months of 20mph
- Building Support for 20mph
- Health Benefits
- Liveable Streets

## Key Performance Indicators (KPIs)

Specific KPIs for evaluating the campaign should be set once there is base line data. These need to set realistic communications and marketing targets such as awareness of the campaign; sight and understanding of messages etc. These should be evaluated after each phase of the campaign to ascertain if target outcomes have been met.

## Pavement Parking

WG is also proposing to enable local authorities to prevent drivers parking on pavements.

Whilst core messages can be themed across all transport interventions to include community benefits, a sense of place, health and wellbeing, safety etc it is not proposed that there is one brand identity across these different programmes.

20mph is a legislative change across the nation so one brand representing this national change is the recommended approach. Pavement parking enforcement however will be delivered by each local authority to suit local circumstances so while there could be an umbrella look and feel it is recommended that this is not the same brand as 20mph to avoid confusion amongst the public. In addition, pavement parking enforcement, whilst a key Government policy priority may dilute the 20mph behavioural change campaign.

# Appendix H – Eight Settlements Study, Key Performance Indicators (KPIs)

## As Transport Outcomes

- 1** Rate of traffic compliance with 20mph (R)
- 2** Change in 85th percentile speed (R)
- 3** Change in average speed (R)
- 4** Public perception of Police enforcement\*
- 5** Fatalities/Serious/Slight (all casualties) (R)
- 6** Pedestrian and cyclist casualty rates with a measure of exposure
- 7** Ratio of pedestrian and cyclist casualty rates in most deprived v least deprived areas (SOAs)
- 8** Older pedestrian casualty rates (65+, 75+ & 85+)
- 9** Ratio of older pedestrian casualty rates (as 65+, 75+ and 85+) in the most deprived v the least deprived areas (SOAs)
- 10** Change in vehicle /pedestrian yield rates
- 11** Walking & cycling mode share, and as a percentage of trips or legs of multimodal trips
- 12** Increase in walking & cycling school commute
- 13** Perception of journey time reliability by car and bus
- 14** Journey time reliability by car and bus (off and in-peak)
- 15** Air quality remaining same (at the least)
- 16** Public perception of any change in air quality
- 17** Footfall in sample centres
- 18** Public Attitude survey of 20mph\*

(R) = Routine data

\* Part of national survey