


# Impact Summary: Tackling Unsafe Speeds

## Section 1: General information

<b>Purpose</b>
Te Manatū Waka – Ministry of Transport is solely responsible for the analysis and advice set out in this Regulatory Impact Statement, except as otherwise explicitly indicated. This analysis and advice have been produced to inform key (or in-principle) policy decisions to be taken by Cabinet.
<b>Key Limitations or Constraints on Analysis</b>
<b>Unquantifiable aspects of the analysis</b> <p>Key elements informing the decision about the proposals in this package are not readily quantifiable. This analysis relies on qualitative consideration of the impacts of a new regulatory framework for setting speed limits and transitioning to lower speed limits around schools. Close engagement with local government and a range of affected parties has highlighted numerous problems with the current framework for setting speed limits. The proposal recommended in Chapter 1 aims to address these concerns as effectively as possible. However, the costs and benefits associated with this proposal could not be fully quantified.</p> <p>Similarly, each road controlling authority (RCA) would determine how to implement the lower speed limit proposals in Chapter 2. Only indicative costs could be provided.</p>
<b>Indicative costs and benefits</b> <p>In Chapter 3, a key part of the proposal includes a commitment to invest in additional safety cameras. A specific investment is not being sought at this stage, as these decisions will be operational decisions for NZ Police and Waka Kotahi NZ Transport Agency (Waka Kotahi), expected to be largely funded from the National Land Transport Fund. Allowance has been made at a strategic level in Government Policy Statement on Land Transport 2021/22-2030/31 (GPS 2021) to fund safety camera proposals in a new automated enforcement activity class. The analysis included in Chapter 3 provides an indication of the costs and benefits associated with investment in different camera types to inform the decision about the overall approach to safety cameras.</p>
<b>Responsible Manager (signature and date):</b>
Robert Anderson <b>Manager, Mobility and Safety</b> <b>Te Manatū Waka</b>  4/3/2022

## Package of proposals

The Tackling Unsafe Speeds programme aims to support broader road safety and transport outcomes such as reducing deaths and serious injuries on New Zealand roads and creating more liveable cities and thriving communities.

Te Manatū Waka's work reviewing the current system and consultation have highlighted priority areas for change regarding speed management. The options identified in this document are grouped into three areas for change:

- improving the regulatory framework for speed management (Chapter 1)
- transitioning to lower speed limits around schools (Chapter 2)
- improving the approach to the safety camera network (Chapter 3).

The details of the new speed management framework, including the functions, powers, and duties of Waka Kotahi, the Director of Land Transport (the Director), RCAs, Regional Transport Committees (RTCs), and a new Speed Management Committee (SMC) will be set out in a new Land Transport Rule: Setting of Speed Limits. The new rule will be made by the Minister and replace the current Land Transport Rule: Setting of Speed Limits 2017 (2017 Rule).

These proposals should be considered as a package of changes to improve speed management in New Zealand and address the range of problems and opportunities identified by stakeholders. Te Manatū Waka, Waka Kotahi, NZ Police and RCAs are also working on broader road safety improvements (for example, safety improvements to the vehicle fleet, improved enforcement, infrastructure investment, improving safety and accessibility for vulnerable users of the land transport system, among others). The speed management proposals in this paper are intended to complement these broader changes.

The proposals in this document have been informed by multiple rounds of targeted engagement with key stakeholders. Former Associate Minister of Transport Julie Anne Genter's Local Government Road Safety Summit in April 2018 and a series of meetings with the Road Safety Strategy Speed Reference Group (representatives from partner agencies, local government, and road users) in late 2018 informed initial thinking on policy options. Te Manatū Waka continued targeted engagement with key stakeholders in 2019 to refine policy proposals.

Public consultation on high-level proposals in this paper was carried out in July – August 2019 as part of *Road to Zero – New Zealand's Road Safety Strategy 2020-2030* (Road to Zero) consultation. Further and final public and targeted stakeholder consultation on a draft Land Transport Rule: Setting of Speed Limits 2021 (the draft Rule), which incorporated Tackling Unsafe Speeds proposals, occurred between April and June 2021.

On 21 March 2018, Cabinet noted the proposals to tackle unsafe speeds by accelerating the implementation of the Speed Management Guide, investigating speed limits around schools, and considering new camera technologies [DEV-18-MIN-0025 refers].

On 1 July 2019, Cabinet was provided with a high-level summary of the Tackling Unsafe Speeds proposals and invited the then Associate Minister of Transport, Julie Anne Genter, to report back in October 2019 seeking approval to the Tackling Unsafe Speeds Programme. [DEV-19-MIN-0175].

On 23 October 2019, Cabinet agreed to implement a new regulatory framework for speed management and to transition to lower speed limits around schools [DEV-19-MIN-0282 refers]. Cabinet further invited the then-Associate Minister of Transport to draft the necessary amendments to land transport rules and report back prior to public consultation.

On 14 April 2021 Cabinet agreed to public consultation on the draft Rule [DEV-21-MIN-0064 refers], which incorporated the Tackling Unsafe Speeds proposals.

As part of this regulatory impact assessment, a Ministry of Social Development Child Impact Assessment Screening Sheet was completed to determine whether the proposed programme will improve the wellbeing of children and young people.<sup>1</sup> This is attached as **Appendix 1**. We expect the proposals to reduce speed limits around schools to particularly benefit children through increased safety and creating a better environment for active transport modes, which will enhance wellbeing.

## Connection with the new Road Safety Strategy (Road to Zero)

The Tackling Unsafe Speeds programme is one of fifteen actions proposed as part of the initial *Road to Zero Action Plan 2020-2022* under the Road to Zero strategy. The Tackling Unsafe Speeds proposals were consulted on as part of Road to Zero consultation from July-August 2019.

Road to Zero and its action plan account for the wide range of factors that influence road safety outcomes and establish a programme of interventions to improve road safety in New Zealand. These include infrastructure investment, vehicle safety standards, strengthened drug driver testing, and motorcycle safety, among others.

Road to Zero sets a target reduction in deaths and serious injuries (DSIs) of 40 percent of 2018 levels by 2030, equating to about 6,350 DSIs over 10 years. Modelling suggests that investment in infrastructure improvements, establishing safe and appropriate speed limits on the highest risk parts of the network, and effectively enforcing speed limits will account for up to half of Road to Zero's DSI target. That would equate to a reduction of up to around 3,175 DSIs.

The Tackling Unsafe Speeds programme aims to establish a more streamlined and coordinated process for speed management, move towards a more transparent and effective approach to automated speed enforcement, and reduce speeds in the highest risk areas and around schools. There will not be blanket reductions to default speed limits.

## Objectives

The overarching policy objectives of the Tackling Unsafe Speeds programme are to support improvements in road safety to reduce the number of DSIs on New Zealand roads. This objective is supported by the package of changes identified in this paper.

In the 2020/21 financial year, 58 percent (1488) of all DSIs (208 deaths and 1364 serious injuries) occurred on roads where the speed limit is higher than the maximum safe and appropriate speed for the road represented. DSIs in 2020/21 totalled 2728. In 2020 there were 622 DSIs (113 deaths and 509 serious injuries) from crashes where driving too fast for the conditions was a contributing factor. In the same year, driving too fast for the conditions was a contributing factor to 32 percent of fatal crashes.

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<sup>1</sup> Information on the Child Impact Assessment Tool can be found here: <https://www.msd.govt.nz/about-msd-and-our-work/publications-resources/resources/child-impact-assessment.html>.

In the event of a crash, the speed of impact is the most important determinant of the severity of injuries sustained and the probability of death. Speed continues to be a major contributing factor to DSIs on New Zealand roads.

There is strong evidence that a decrease in the mean travel speed on a road is associated with a decrease in the number of crashes, as well as their severity<sup>2</sup>. At lower speeds, vehicles have shorter braking distances and people have more time to react and take action to avoid a crash. When crashes do occur, lower travel speeds mean the crash impact energy is lower, reducing the severity. Tackling unsafe speeds has been a dominant focus in other jurisdictions that have made significant and sustained road safety gains. For example, the number of traffic deaths per 100,000 inhabitants in Sweden has fallen by 68% between 2000 and 2019.<sup>3</sup>

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<sup>2</sup> International Transport Forum (2018). Speed and Crash Risk. OECD.

<sup>3</sup> International Transport Forum (2020). Road Safety Report 2020 - Sweden. OECD.

# CHAPTER 1: Establishing a new regulatory framework for speed management

## Section 2: Problem definition and objectives

2.1 What is the policy problem or opportunity?
<p><i>There is a lack of clarity around the current speed limit setting process, which is leading to inconsistent approaches to consultation and engagement, and decision making. The process is cumbersome for RCAs and has led to inconsistency across the road network, with some RCAs deferring speed management changes, as they view these as too hard. This can lead to safety concerns for the public if roads that would otherwise have safer speed limits do not receive a speed management treatment.</i></p> <p>Effective speed management aims to ensure that our highest risk roads have safe and appropriate speed limits. We want our road controlling authorities to have a process that allows them to adjust speed limits appropriately as population, vehicle technology, land use and roading environments change over time.</p> <p>This involves matching the speed limit to the design, use, form and function of the road, and the risk posed to the road user. Sometimes it involves reducing speed limits following a speed management review. In other cases, roads can be engineered up to the required standard to support existing or higher travel speeds. Engineering changes can also be used to slow traffic down, to ensure the safety of road users and to enable more effective traffic flow.</p> <p>Speed management has been a dominant focus in other jurisdictions that have made significant road safety gains in recent years.</p> <p><b>Waka Kotahi and local authorities are responsible for reviewing and setting speed limits in their capacity as RCAs</b></p> <p>Waka Kotahi is the RCA for State highways, and territorial authorities are the RCAs for most local roads. When RCAs set a speed limit, they must follow the framework outlined under the Land Transport Rule: Setting of Speed Limits 2017 (the 2017 Rule). RCAs are required to make a bylaw to set speed limits (and maintain a register of these bylaws).</p> <p>Waka Kotahi is also responsible for:</p> <ul style="list-style-type: none"><li>• recommending safe and appropriate speeds across the road network</li><li>• developing a Speed Management Guide (more detail on the Speed Management Guide is outlined below)</li><li>• approving some speed limit changes proposed by RCAs.</li></ul> <p>There are also other RCAs responsible for some components of the road network, such as the Department of Conservation, Department of Corrections, supermarkets, airport authorities and other government departments in designated locations.</p> <p>Under the 2017 Rule, RCAs must consider information and guidance provided by Waka Kotahi when carrying out speed reviews. This includes the Speed Management Guide which provides tools and guidance for RCAs to use in reviewing and setting speed limits, and MegaMaps – a risk assessment tool that estimates safe and appropriate travel speeds for all New Zealand roads.</p>

Waka Kotahi works closely with RCAs on speed management on a regional basis within the context of the current regulatory framework. Waka Kotahi is currently working with the Waikato and Gisborne regions on Speed Management Plans (SMPs) and intends to roll out its regional approach to speed management across the rest of the country over the next two years.

### **There are substantial problems with the current regulatory framework for setting speed limits**

Local government faces difficulties planning for, consulting on, and implementing speed management treatments. There is some confusion about the interaction of the bylaw process for setting speed limits, the Speed Management Guide, the 2017 Rule and local government legislation. The current approach is costly, inefficient, and complex and some councils consider speed management changes are too hard to apply.

This has led to:

- unsafe speed limits that do not reflect the nature of the road
- speed limit changes that are not supported by appropriate infrastructure investments where necessary
- ad hoc speed limit reviews and inconsistent approaches to speed limit setting both within and across regions
- slow (or no) responses to community requests for safer speed limits and limited progress on addressing the highest risk parts of the network
- in some cases, limited public 'buy-in' to speed management changes
- some lack of transparency and accountability around speed management changes and how they are being rolled out for both the State highway network and local roads
- at times, uncertainty about the legal enforceability of speed limits.

These poor outcomes are primarily caused by:

- the resource-intensive consultation and decision-making requirements for making bylaws
- RCAs (including Waka Kotahi) having limited resources and capability to implement speed management changes
- poor coordination of infrastructure decisions and speed limit reviews
- minimal incentives for RCAs to prioritise speed management and to take a coordinated and consistent approach across, for example, parts of the road network with similar conditions.
- concerns about the transparency and reliability of MegaMaps
- a lack of clarity around the roles of Waka Kotahi as both regulator and RCA.

Engagement with RCAs and the Road Safety Strategy Speed Reference Group (the Reference Group)<sup>4</sup> and feedback from the Local Government Road Safety Summit in April 2018 initially highlighted these problems with the current process. Further comments from stakeholders from targeted consultation on the proposals undertaken in 2019 and 2020, Road to Zero consultation undertaken in 2019, and public consultation undertaken in 2021, are outlined in **Chapter 1: Section 5**.

Government regulation is needed to address these problems. This is because to implement a new regulatory framework for speed management, amendments to the 2017 Rule will be needed.

## 2.2 Who is affected and how?

The problems with the current regulatory environment most directly affect RCAs. The system imposes costs, creates confusion, and leads to many RCAs choosing to delay or avoid speed management proposals as the process is too hard.

However, the most important group affected are public road users. Problems with the existing regulatory framework have flow on effects for the public from compromised safety outcomes, increasing the risk of DSIs. If RCAs avoid or delay implementing safer speed limits, then safety outcomes for the public are worse than they otherwise would be. While this affects the whole population, given the importance of speed to DSIs, this has implications for Māori, who are overrepresented in DSIs from road crashes, with trends suggesting this is increasing.<sup>5</sup>

For 2013-2017 the average rate of DSIs per 100,000 population for all Māori men was 87, much higher than the average rate of 61.5 for all men. For all Māori women the rate was 40.5, much higher than the average rate of 29 for all women.

Between 2004 and 2014, data showed Māori were also specifically over-represented in fatal crashes where speed was a factor, making up 32% of casualties. This was despite being only approximately 15 percent of the New Zealand population around those years (Māori are 17 percent of the population on latest estimates).

Proposed changes will seek to improve the efficiency of the regulatory process, remove confusion, and encourage regional collaboration. This direction of change is strongly supported by RCAs, partner agencies and road user representatives.

## 2.3 Are there any constraints on the scope for decision making?

Ministers have directed Te Manatū Waka to progress work on improvements to the regulatory framework for speed management. In December 2018, the then Associate Minister of Transport agreed to the high-level scope of the regulatory framework proposal [OC181050 refers].

On 1 July 2019, Te Manatū Waka provided Cabinet with a high-level summary of the Tackling Unsafe Speeds proposals, and Cabinet invited a report back in October 2019 seeking approval to the Tackling Unsafe Speeds Programme [DEV-19-MIN-0175]. On 23 October 2019, Cabinet agreed to implement a new regulatory framework for speed

<sup>4</sup> As part of the developing Road to Zero, five reference groups were established to develop a shared understanding of our road safety challenges and priorities for the next decade. The reference groups comprised over 100 representatives from central government, local government, advocacy groups and special interest groups.

<sup>5</sup> Waka Kotahi (2021). He pūrongo whakahaumarū huarahi mō ngā iwi māori: Māori road safety outcomes.

management and to transition to lower speed limits around schools [DEV-19-MIN-0282 refers].

The proposal relating to speed limits around schools is explored further in Chapter 2, but for the purposes of this Chapter it is considered a constraint on the scope (that is, options considered in Chapter 1 should support introducing lower speed limits around schools).

The Tackling Unsafe Speeds programme is part of a broader set of road safety changes that the Government has publicly committed to action under Road to Zero. A decision not to progress the programme as broadly outlined under Road to Zero would, therefore, be out of scope.

## Section 3: Options identification

### 3.1 What options have been considered?

Options for a new regulatory framework for setting speed limits are set out in this section. These options are assessed against the status quo.

#### Option 1: Retain bylaw-making process and allow alternative pathway

- Retain the bylaw-making process as a legal speed-limit-setting process.
- Establish an alternative regulatory process for setting speed limits with procedural and consultation requirements set out in the 2017 Rule.
- For those RCAs that choose to use the alternative regulatory process, formal introduction of a new speed limit would be through Waka Kotahi approval and publishing on a national register (rather than making speed limit bylaws).
- RCAs could use either pathway for setting speed limits.

#### Option 2: Remove and replace the bylaw-making process

- Remove the bylaw-making process for setting speed limits.
- Establish a regulatory process for setting speed limits with procedural and consultation requirements set out in the 2017 Rule.
- Formal introduction of a new speed limit would be through Waka Kotahi approval and publishing on a national Register (rather than making speed limit bylaws).
- No further formal requirements for regional RCA planning and implementation processes for setting speed limits (that is, this would be carried out on an RCA-by-RCA basis unless coordinated otherwise).

#### Option 3: Remove bylaw-making process and introduce regional planning requirements

- Remove the bylaw-making process for setting speed limits.
- Establish a regulatory process for setting speed limits with procedural and consultation requirements set out in a new Land Transport Rule: Setting of Speed Limits, to replace the 2017 Rule.
- Waka Kotahi would be required to develop a State highway SMP and work collaboratively with territorial authority RCAs and RTCs to develop Regional SMPs.



- RCAs would consult on plans as a whole (rather than individual speed management proposals) and be required to implement proposals set out in finalised plans.
- Speed management plans would incorporate safety infrastructure changes and safety camera use.
- Formal introduction of a new speed limit would be through the certified plan being lodged and published on a national register (rather than making speed limit bylaws).

Non-regulatory interventions were considered, but in isolation they were not viable options to address the types of problems identified with the existing regulatory process. The options above would likely be supported by non-regulatory interventions, such as engagement and information sharing with the public. The identified options are assessed in the table below.

### Assessment criteria

#### **Effectiveness – road users travel at safe and appropriate speeds**

The preferred intervention should aim to ensure road users travel at safe and appropriate speeds for the road they are travelling on. In the event of a crash, the speed of impact is the most important determinant of the severity of injuries sustained and the probability of death.

#### **Effectiveness – improve regional collaboration and consistency across the network**

Preferred interventions should encourage a whole-of-network approach to speed management and consistent speed limit setting. Inconsistent approaches to speed management across the network can lead to confusion for road users. Unwarranted discrepancies in speed limits within regions, across similar roads and around the country, can also reduce the credibility of speed limits for road users.

#### **Effectiveness – supports introduction of safer speed limits around schools**

Preferred interventions should enable the implementation of the Government's policy to introduce safer speed limits around schools to protect vulnerable road users and encourage active mode use.

#### **Implementation – cost and timing**

Preferred interventions should be as low cost as possible. There is strong interest from a variety of stakeholders to see improvements to speed management as soon as possible.

#### **Ongoing compliance and administration costs**

Preferred interventions should be as simple and low cost as possible for road users to comply with and for regulators to administer.

#### **Key stakeholder support and public acceptance**

Waka Kotahi, RCAs and NZ Police all have a range of speed management and enforcement responsibilities. Preferred interventions should be implementable and generally understood and supported by the organisations with implementation, investment, and operational responsibilities. Speed limit setting is also often an important concern for local communities.

## Options analysis - assessment of the regulatory framework options

	Status quo	Option 1 – Retain bylaw-making and allow a new regulatory process	Option 2 – Remove bylaw-making process	Option 3 - Introduce a new planning process
Effectiveness – road users travel at safe and appropriate speeds	0	0 Expected to have minor impacts on safe and appropriate speeds	0 Expected to have minor impacts on safe and appropriate speeds	+ Expected to improve the process for consulting on and implementing speed limit changes leading to more roads having speed limits aligned with safe and appropriate speeds more quickly. Expected to see clearer prioritisation of speed limit changes.
Effectiveness – improve regional collaboration and consistency	0	- - Continued confusion as RCAs use different speed limit setting processes, including the bylaw-making process. Not expected to create or incentivise consistency of speed limits regionally or nationally.	+ Expect all RCAs to be using the same process for speed-limit setting. However, not expected to create more consistency or encourage regional collaboration	++ Should reduce the ad hoc changes that occur across RCAs in a region. The planning process requires regional collaboration and is intended to support a consistent approach being taken across the network.
Effectiveness – support schools proposal	0	0 Requirements around schools could be introduced but the bylaw process would likely continue to make these changes onerous.	+ Requirements around schools could be rolled out more efficiently by RCAs under the new process.	++ Requirements around schools would be supported by a planning process designed for broader scale change.
Cost and speed of implementation	0	0 Limited disruption and relatively minor changes to allow RCAs to use an alternative speed limit setting process.	- Some regulatory change required to the 2017 Rule - removing the bylaw-making process and establishing new speed limit setting process. RCAs must become familiar with new process requirements.	- - A new Setting of Speed Limits rule replaces the 2017 Rule, removing the bylaw-making process and establishing new comprehensive speed management /infrastructure planning processes. Some disruption and complexity for RCAs in transitioning to the regionally coordinated process.
Ongoing compliance and administrative costs	0	+ Compliance costs for RCAs expected to be no higher than at present. RCAs have the option of choosing to use the alternative process, which should reduce compliance costs for some. Confusion may remain.	+ Process is expected to be clarified and more efficient than the existing process.	++ The proposed regulatory framework will place new planning requirements on RCAs, Waka Kotahi and RTCs. These are expected to streamline the process for planning, consultation, and implementation, improving efficiency in the long term.
Key stakeholder support and public acceptance	0	- Does not address the primary concern that arose from stakeholder engagement about the confusion and mixed interpretation about the current process.	0 Clarifies the speed limit setting process but does not encourage regional collaboration. Some may view the proposal as imposing a new process for limited benefit.	+ Stakeholders have expressed general support for the new regulatory framework at a high level. This process will improve transparency and accountability of speed management for the public.
Overall assessment	0	-	+	++

Note: effectiveness criteria are weighted more heavily than key stakeholder support/public acceptance

### 3.2 Which of these options is the proposed approach?

Option 3 is the proposed approach. This proposal aims to reduce the regulatory barriers to RCAs to set safe and appropriate speed limits and streamlines the process for consultation and implementation. One of the key aims of this option is to ensure a whole-of-network approach is taken to setting speed limits in a region and across the country, while retaining local decision making, but enhanced by regional coordination and national oversight.

SMPs would be ten-year plans, developed every six years, with allowance for variation every three years. All SMPs would include proposals on engineering upgrades and other safety infrastructure treatments, alongside proposed speed limit changes.

The proposal would allow RCAs to conduct speed management planning, including determining infrastructure needs, prior to land transport planning. In this way RCAs would be better prepared for business planning processes to access infrastructure funding through the land transport planning process.

SMPs would be formally consulted on, reviewed, and published. RCAs would be required to implement speed limit changes as set out in published plans. Waka Kotahi would work collaboratively with other RCAs and RTCs throughout this process to ensure interactions between proposed changes on the State highway network and local roads are coordinated.

RCAs would be required to lodge speed limit changes for inclusion on a national register. This will be the final step to bring a speed limit legally into effect. This regulatory process would replace the bylaw-making process and RCAs would no longer be able to set speed limits through a bylaw. This proposal would also clarify the roles of Waka Kotahi as a regulator and RCA.

Stakeholders largely indicated support for the general direction of change outlined in this proposal. Various elements within the proposed framework have also been refined and amended based on feedback from stakeholders.

#### Summary of the differences between the current and proposed frameworks

Table 1 below summarises some of the key differences between the current approach to speed management and how it would be carried out under the proposed regulatory framework.

**Table 1: Summary of current and proposed regulatory frameworks**

	Current regulatory framework	Proposed regulatory framework
<b>Infrastructure and speed limits</b>	Infrastructure planning and investment decisions and speed limit reviews tend to be carried out separately.	In setting deadlines for participation in the speed management planning process, Waka Kotahi will consider how this process will interact with the land transport planning process. We expect that the speed management planning process will occur six months prior to the land transport planning process, to ensure that RCAs are better prepared for subsequent business planning processes to access funding.
<b>Network coordination</b>	RCAs tend to conduct speed limit reviews on isolated parts of the network with limited collaboration with other RCAs. Changes to local roads and the	The planning process will support a whole-of-network approach by supporting regional collaboration and consistency, supported by RTC involvement. This will

	State highway network are not always well coordinated.	ensure each region has a plan and that those plans coordinate with bordering regional plans and changes to the State highway network.
	<b>Current regulatory framework</b>	<b>Proposed regulatory framework</b>
<b><i>Consultation</i></b>	RCAs often consult on individual or a small number of speed limit changes in isolation. The consultation process varies between RCAs but is often resource intensive and time consuming. RCAs are required to consult on proposed changes each time a speed limit review is carried out.	RCAs and RTCs will be required to consult on speed management plans (SMPs). These will identify all proposed speed management changes over the next 10 years across a region (with more specific details for the first three years). Once a SMP is finalised, RCAs will implement those changes in accordance with the plans.
<b><i>Transparency and accountability</i></b>	The public hears about changes as they are consulted (often on a road or small number of roads at a time) and so do not have visibility of how a given speed limit change may fit in with other changes in the region. There is a lack of transparency and accountability around speed management interventions and how they are being rolled out.	SMPs will be public documents that set out all upcoming speed management changes in the region, including on the State highway network. RCAs will be required to implement speed management interventions in accordance with the relevant SMP.
<b><i>Clarity of roles</i></b>	Waka Kotahi is both an RCA and the regulator. The distinction between these roles is not always clear and can create a perceived conflict of interest. RCAs are responsible for speed management and carry out speed management reviews as they consider appropriate. There is no formal role for RTCs.	The Waka Kotahi roles as RCA and regulator are clearly defined. The Director reviews the SMPs of other RCAs. An independent committee will be established to review the State Highway SMP (the Waka Kotahi RCA role) before it is provided to the Director for final certification. RCAs are responsible for contributing to and implementing SMPs. Regional transport committees have a formal regional coordination role.
<b><i>Bringing a speed limit into legal effect</i></b>	The RCA requires a decision by full council on each speed limit change and adopts the bylaw. The legal records of speed limits are spread across hundreds of council bylaws and resolutions. The current process has at times created uncertainty about the legal enforceability of speed limits.	Speed limits will be implemented in accordance with SMPs and must be lodged with the Registrar of Road Instruments for inclusion in a publicly available register. This will provide certainty of legality of posted speed limits for enforcement purposes and for the public. It will also reduce costs and complexity for RCAs.

## Section 4: Impact Analysis (Proposed approach)

### 4.1 Summary table of costs and benefits

<b>Affected parties</b> <i>(identify)</i>	<b>Comment:</b> nature of cost or benefit (e.g., ongoing, one-off), evidence and assumption (e.g., compliance rates), risks	<b>Impact</b> <i>\$m present value, for monetised impacts; high, medium, or low for non-monetised impacts</i>
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Additional costs of proposed approach, compared to taking no action		
Regulated parties – motorists	<p><b>Longer travel times</b> - the new approach is expected to facilitate more widespread and earlier moves to more safe and appropriate speed limits nationally (in many cases likely lower than current speed limits) – therefore, perhaps causing some increased travel times for motorists.</p> <p>Motorists travelling for commercial, or business reasons may incur limited business cost increases from any delays.</p>	Low
Regulators	<b>SMP processes</b> - RCAs (including Waka Kotahi as RCA) and RTCs – temporary additional resourcing required to prepare initial SMPs and establish new processes	Medium (one-off)
	<b>New regulatory requirements</b> (Waka Kotahi) – including development of the National Speed Limit Register (NSLR) Registrar functions, review of Regional SMPs	Low
	<b>NSLR costs</b> - (Waka Kotahi) – design, data migration and IT support/maintenance for the NSLR	FY19/20 – FY21/22 \$3,382,320
Wider government	<b>Implementation costs</b> – replacement of the 2017 Rule with a new Setting of Speed Limits Rule and establishing new supporting regulations	Low
Other parties	Customers or business associates of motorists travelling for commercial, or business reasons may incur limited increased costs, if costs from any delays are passed on	Low
<b>Total Monetised Cost</b>		FY19/20 – FY21/22 \$3,382,320
<b>Non-monetised costs</b>		Low

Expected benefits of proposed approach, compared to taking no action		
Regulated parties – focussed on motorists who are regulated by speed limits	<p><b>Safety</b> - the new approach is expected to facilitate more widespread and earlier moves to safe and appropriate speed limits nationally – providing improved safety outcomes for all motorists.</p> <p>This may have benefits for Māori motorists and other Māori road users, who are overrepresented in DSIs from road crashes. However, this will depend on the extent to which the proposal changes driver behaviour.</p>	Medium
	<p><b>Transparency</b> – motorists, other road users and the wider public will have access to and ‘visibility’ of SMPs (alongside land transport plans), the MegaMaps tool and the Register of Road Instruments.</p>	Low
	<p><b>Decongestion</b> – potentially less traffic congestion in certain areas from lowered speeds<sup>6</sup> and more use of active transport modes</p>	Low
Regulators	<p><b>Clarity</b> – establishes a clear process for setting speed limits and removes existing confusion.</p>	Low
	<p><b>Effectiveness/efficiency</b> – a less resource intensive, time consuming and complex speed setting process</p>	Medium
	<p><b>Reduced ongoing compliance costs</b> – process and consultation requirements for speed limit changes are coordinated and streamlined (less work on a per speed limit change basis and more straightforward to make various changes across the region).</p>	Medium
Wider government	<p><b>Enforcement</b> – the new process and single register provides certainty of legally enforceable speed limits</p>	Low
	<p><b>Health impacts</b> – savings from fewer health-related resources needed to treat crash-related injuries</p>	Medium
	<p><b>Productivity/social</b> – gains from reduced DSIs (for example, less loss from reduced workforce participation)</p>	Low

<sup>6</sup> Variable speed signs are sometimes used on motorways to reduce traffic congestion.

	<p><b>Social cost per fatality savings<sup>7</sup></b> – savings are expected to social costs per fatality, to the extent that the proposal changes behaviour to prevent fatalities - for example, it is expected that some proportion of deaths occurring on roads where the speed limit is higher than the maximum safe and appropriate speed (212 in FY 2019/20) and deaths where driving too fast for the conditions is a contributing factor (113 in 2020), may be saved)</p>	Medium
Other parties (road users other than motorists)	<p><b>Consistency and safety</b> – all road users are expected to benefit from a consistent, whole-of-network approach being taken to speed management, improving road safety outcomes (including pedestrians, cyclists, and micro-mobility users).</p> <p><b>Accessibility</b> – safer and more user-friendly environments encouraging use of more active transport modes (walking, cycling, micro-mobility)</p> <p><b>Carbon emission reductions</b> – potentially reduced carbon emissions from more active transport use.</p>	Medium
<b>Total Monetised Benefit</b>		NA
<b>Non-monetised benefits</b>		Medium

#### 4.2 What other impacts (and risks) is this approach likely to have?

There is a risk that some RCAs continue to make limited progress or put speed limit changes on hold until the proposed approach is implemented. There are significant differences in the extent to which RCAs are progressing speed management changes around the country.

This risk will be managed through Waka Kotahi proactively working with RCAs to prioritise setting speed limits on the highest risk roads to align with the recommended safe and appropriate speed. The proposed approach is intended to enable and formalise the existing work that Waka Kotahi is carrying out to coordinate speed management regionally. Waka Kotahi has been actively engaging with RCAs, following consultation, on how to progress changes until the new rule to replace the 2017 Rule is in force, including updating the National Land Speed Register with current speed limits data. RCAs have been

<sup>7</sup> Te Manatū Waka valued a statistical life (VOSL) at \$4.42 million per fatality at June 2020 prices. Adding other social costs (medical care, legal and court, vehicle damage) gives an updated average social cost \$4.46 million per fatality. Te Manatū Waka (2021). Social cost of road crashes and injuries.

appreciative of the ability to discuss concerns about the new approach and work through solutions.

## Section 5: Stakeholder views

### 5.1 What do stakeholders think about the problem and the proposed solution?

We have conducted comprehensive consultation with stakeholders on proposals for a new speed management framework over several years in separate phases.

Feedback from attendees at the Local Government Road Safety Summit in April 2018 provided insight about the challenges local government was facing regarding speed management. RCAs advised that using bylaws for setting speed limits was resource intensive, time consuming and complex and potential interventions were suggested that would effectively address these challenges.

Te Manatū Waka and Waka Kotahi continued engaging with a range of RCAs and other stakeholders through a variety of forums in 2019, 2022 and 2021. Feedback from these stakeholders indicated that there are numerous problems with the existing process for setting speed limits. These issues are outlined in detail below. This feedback has provided strong indications of the need to make regulatory changes to amend the process for setting speed limits.

#### Speed Reference Group consultation

A key part of developing these proposals included hearing about and testing potential options for change on speed management with the Reference Group. These workshops took place between September and November 2018 and provided valuable insight into the issues facing RCAs and the ways in which speed management could be improved in New Zealand. A diverse range of participants (including representatives from central government, local government, advocacy, and special interest groups) contributed to the workshops and the ideas generated have been further developed and tested to inform the proposals in this paper.

The Reference Group indicated a strong ambition for implementing speed management changes. Given the problems (set out above) members of the Reference Group wanted to see a new model that:

- addressed confusion and inconsistency of application of bylaw requirements, the 2017 Rule and Speed Management Guide
- encouraged greater accountability, transparency, and consistency around speed management
- enabled more effective regional approaches
- came with sufficient funding and resources to support implementing speed management changes, both undertaking speed limit reviews, and making engineering and other physical changes to the road
- encouraged an evidence-based approach supporting public understanding and engagement
- involved the RCAs' local knowledge to support effective implementation and engineering of roads



- provided more efficient ways of undertaking change that still engaged with communities and other road users.

Some benefits were seen in addressing the bylaw confusion, where the 2017 Rule is applied differently by RCAs to change speed limits. However, generally people believed this would not be a sufficient change on its own and would not drive accountability for speed management.

### **Targeted RCA, other agency, and road user representative consultation**

Further targeted consultation on draft policy options was conducted in March to May 2019 with other agencies, RCAs, and road user representatives. Some of the key feedback included:

- General support for a new regulatory framework to streamline the speed-limit-setting process, simplify consultation, remove the bylaw-making process, and encourage a whole-of-network approach.
- If the new framework is not designed and implemented effectively then it could create considerably more work for RCAs.
- Consultation requirements could still be too onerous, particularly on roads where there is a very clear rationale for reduced speed limits based on the already known risk of DSIs. There was interest expressed in adopting an 'inform and engage' approach to some speed limit changes.
- It is important to clarify the role and powers of the parties involved, including the independent SMC and Waka Kotahi.
- Safe and appropriate speeds recommended by MegaMaps do not always appear to be reliable. There would therefore need to be allowance for variation from these recommendations. In particular, the tool does not seem to adequately account for vulnerable users or areas with high numbers of active users. Some stakeholders suggested a review of MegaMaps prior to full implementation of the new planning approach. Waka Kotahi intends commissioning an independent review of MegaMaps once the new Setting of Speed Limits Rule comes into force.
- There needs to be a mechanism for allowing for speed limit changes outside the planning cycle.

### **Road to Zero consultation**

Public consultation on the Road to Zero took place between 17 July and 14 August 2019. The Tackling Unsafe Speeds proposals were discussed at a high-level in the consultation document.

On balance, comments broadly supporting the Tackling Unsafe Speeds proposals outweighed those broadly opposed, although there were various strong views on both sides on certain issues. Submissions from organisations tended to be more heavily weighted towards support for the proposals. Some submitters opposed the proposals to lower speeds around schools, for example, because they considered they should happen more quickly than proposed timelines.

Supportive comments tended to focus on achieving lower speed limits, particularly in urban areas and around schools. Many also stated that safety infrastructure should support these speed limit reductions.

Those opposed tended to think speed or speed limits should not be considered a priority and other issues such as driver behaviour and training, or investment in infrastructure were more important. Some submitters expressed concerns about time delays from speed limit reductions, while others were concerned about blanket speed limit reductions (although this is not being proposed).

Many submitters expressed mixed views on speed. These included in principle support for speed limit reductions in some areas; but concerns about implementation, effectiveness, or the need to focus on other safety interventions before relying on speed limit reductions.

### **Policy proposals explanatory note release**

Following further work on proposals for a new framework considering the above feedback, Te Manatū Waka released an explanatory note to RCAs and other targeted stakeholders in July 2020, outlining the policy proposals to date. The note was released because it was considered that an entirely new speed limits rule was needed. Several RCAs and key stakeholders provided feedback on the explanatory note, which was considered, and further adjustments made to proposals, where appropriate.

### **Final public consultation and resulting changes to proposals**

A final round of public consultation on the draft Rule occurred between 23 April 2021 and 25 June 2021 (nine weeks). In all, 325 written submissions were received. As part of this consultation Waka Kotahi officials, with a Te Manatū Waka representative, also ran fourteen workshops with RCAs across New Zealand, covering eleven locations. Workshops were attended by a range of council staff and elected officials, including mayors.

Alongside this, officials also presented at RTC meetings, the RCA Forum, and met with key stakeholders such as the Automobile Association, iwi, and the national road safety charity Brake. Further meetings also occurred with the Transport Special Interest Group (consisting of Regional Council representatives) and certain RCAs during September 2021 to discuss concerns from the public consultation and possible changes to proposals.

Submissions from consultation supported the proposed framework overall, but three aspects got more significant feedback. These were the SMC's role and RTC roles, and school speed limits. We subsequently made changes to these aspects of the proposals to address concerns.

The SMC's benefit was questioned, with many submitters considering that the Director's role was independent and better suited to overseeing the speed management settings for the entire roading network. We propose reorienting the SMC's role to strengthen and support the Director's role, while continuing to provide for the SMC's own independent function.

The capacity, capability, and effectiveness of RTCs conducting local consultation on SMPs was also questioned, particularly if this needed to occur at the same time as RTCs engagement in land transport planning activity. Consequently, we propose uncoupling the speed management and land transport planning processes (so consultation on each can occur separately) and allowing RCAs to run their own consultation. RTCs would continue

to support SMPs' regional consistency. The SMP process would likely occur earlier than the land transport planning process and feed into it, thus maintaining alignment and allowing SMP infrastructure proposals to influence land transport funding decisions.

Lower speed limits around schools were supported, but there were concerns that children in rural areas were at risk from higher allowable speed limits around rural schools. Therefore, we propose categorising schools into two groups (One: 30km/h default<sup>8</sup>; Two: up to 60 km/h) based on local settings and risk factors applying to schools, rather than urban or rural location.

Pending the proposed new framework being agreed and the draft Rule being finalised, Waka Kotahi will also publish a summary of submissions report. This is standard practice when a Rule is created or amended. The report will provide further analysis on changes made to the draft Rule. Such reports provide stakeholders with reasons for why changes either have or have not been made, to support understanding of final policy decisions.

## Section 6: Implementation and operation

### 6.1 How will the new arrangements be given effect?

Implementing the proposed approach requires replacing the 2017 Rule with a new Rule and establishing supporting regulations. Once these components are in place there would then be a transition period before the first SMPs were required to be finalised.

Allowing for these components to be in place, our expected timeline would mean the first SMPs would be published in early 2025.

#### Regulatory changes

The details of the new speed management framework, including the functions, powers, and duties of Waka Kotahi, RCAs, RTCs, and the SMC will be set out in a new Land Transport Rule: Setting of Speed Limits 2021. The new rule will be made by the Minister and replace the 2017 Rule.

Two sets of new regulations also need to be established to support the new rule. These are the Land Transport Management (Regional Transport Committees) Regulations and the Land Transport (Register of Land Transport Records: Speed Limits) Regulations. The new regulations will respectively support the RTC's role in the new process and the technical requirements to set speed limits.

Minor amendments to primary legislation to allow for aspects of the new approach have already been made. The Land Transport (NZTA) Legislation Amendment Act, which came into force on 1 September 2020, amended:

- the Land Transport Act 1998 to establish the Registrar of Road Instruments as the legal instrument for speed limits and revise the rule making powers
- the Land Transport Management Act 2003 to provide that RTCs must carry out any functions conferred by regulations (which would subsequently include RTCs' functions for involvement in preparing and reviewing SMPs).

<sup>8</sup> With the exception that schools with existing 40km/h limits in place prior to consultation on the new Rule (at 20 April 2021) could retain these.

Drafting is well advanced on the draft Rule and regulations, and pending Cabinet approval, we expect these to be in place in mid 2022. Following this, implementation of the new approach can start.

### **Transitional arrangements**

Preparation of the first round of SMPs is expected to take some time; RCAs will be provided with sufficient lead-in time to allow SMPs to be drafted, consulted on, and finalised. Further detailed implementation planning will determine the timing of the first planning round. However, under current timelines the first draft plans from most RCAs under the new approach are expected towards late 2024.

To support the proposed changes to the regulatory framework, a review of the Waka Kotahi MegaMaps tool is recommended. This would provide greater assurance to RCAs and the public that safe and appropriate speed recommendations are robust and reliable.

As part of the proposed new regulatory framework, a new Register of Road Instruments for speed limits is being developed. Updating a speed limit on the register would be the final step in the regulatory process to formally give effect to a speed limit. All current speed limits in the country would remain in effect and be transferred from individual bylaw registers to the national register. In the interim, speed limits set through bylaws would remain in force until the register becomes fully operational. Bylaw data is expected to be migrated to the new register by 31 May 2022.

Waka Kotahi is also developing a new Speed Management Guide to support the new regulatory framework. RCAs will be provided an engagement period on the Speed Management Guide, during which there will be an ability to provide feedback.

Once the draft Rule is in force, RCAs will have the ability to progress interim SMPs, if bylaw data is migrated. Interim SMPs can be done individually by an RCA, or regionally supported by RTCs.

### **Operation**

Operational responsibility for the proposed changes would largely sit with Waka Kotahi, RCAs and RTCs. These will be the parties responsible for developing SMPs and therefore planning for, consulting on, and implementing speed limit changes.

### **Funding**

Funding for the proposals outlined in this section has been identified through analysis to support Road to Zero. These proposals are largely expected to be funded through the National Land Transport Fund (NLTF) as signalled in GPS 2021. This includes funding identified for speed management infrastructure costs; speed limit reduction costs to the highest risk parts of the network and in areas where there are high numbers of active mode users; and the government contribution to speed management changes on local roads (including education campaigns and support).

The GPS 2021 includes safety as one of its four strategic priorities. It creates a Road to Zero activity class involving investment of approximately \$1 billion per annum to ensure safety treatments, including those under the Tackling Unsafe Speeds programme are progressed.

# Section 7: Monitoring, evaluation, and review

## 7.1 How will the impact of the new arrangements be monitored?

The safety impacts of the proposed Tackling Unsafe Speeds programme will be monitored as part of implementing Road to Zero. All action plan items are intended to support reductions in the number of DSIs. The first *Road to Zero Annual Monitoring Report 2020* was released in August 2021.

As part of Road to Zero, the key indicators for relating to establishing a new speed management framework that will be monitored include (other key Road to Zero indicators associated with school speed limits and safety cameras are listed in Chapters 2 and 3):

- Percent of the highest risk roads addressed through speed management.
- Number of DSIs on roads where the speed limit does not align with the safe and appropriate speed.
- Number of DSIs where the speed limit does not align with the Safe System approach<sup>9</sup>.
- Percentage of road network where the speed limit aligns with the Safe and Appropriate Speed.

In addition, the importance of monitoring and oversight is recognised in this proposal by:

- requiring Waka Kotahi to work collaboratively with all regions to support the development of Regional SMPs - Waka Kotahi must review these plans
- establishing a SMC to review State Highway SMPs and speed management guidance provided to RCAs by Waka Kotahi
- RTCs have a role in ensuring regional consistency of RCAs' SMPs.

Te Manatū Waka and Waka Kotahi will also consider the benefit and feasibility of evaluating the impact of Tackling Unsafe Speeds on desired outcomes or issues broader than DSIs and road safety. This could include, for example, the extent to which safer speeds have supported more active transport modes and reduced carbon emissions or impacted on travel times and productivity or freight.

## 7.2 When and how will the new arrangements be reviewed?

Waka Kotahi, RCAs and RTCs would have responsibility for developing, consulting on, and implementing SMPs which will provide direct insight into the issues with the process. Notable variations from the expected impacts of reducing DSI crashes, especially any negative impacts, will be monitored and addressed through ongoing collaboration with Waka Kotahi and other RCAs.

Waka Kotahi, in its role as regulator, would be responsible for reviewing Regional SMPs. The SMC would be responsible for reviewing the Waka Kotahi State Highway SMP. These reviews would ensure due process is followed. RCAs will also comment on performance assessments carried out by Waka Kotahi on how effective their plans have been in managing speed.

<sup>9</sup> The four Safe System principles under Road to Zero are: (1) People make mistakes that lead to road crashes. (2) The human body has a limited physical ability to tolerate crash forces before harm occurs. (3) The responsibility for safety is shared amongst those who design, build, manage and use roads and vehicles. (4) All parts of the system must be strengthened so that, if one part fails, road users are still protected.

# CHAPTER 2: Transitioning to safer speeds around schools

## Section 2: Problem definition and objectives

### 2.1 What is the policy problem or opportunity?

*Current speed limits around schools are often not the recommended safe and appropriate speed limits. This creates safety risks and discourages some children from using active transport modes to get to and from school.*

*We expect the proposed approach outlined in Chapter 1 to streamline the process for RCAs to implement safer speed limits around schools. However, the options in this chapter could be implemented under any of the options (including the status quo) identified in Chapter 1.*

#### Current situation

Current default speed limits around schools are 50 km/h in urban traffic areas and 100 km/h on all other roads. RCAs can change speed limits so some roads around schools have speed limits that differ from the above default limits.

The current Speed Management Guide and Safer Journeys for Schools Guide encourage:

- 40 km/h permanent or variable speed limits outside urban schools<sup>10</sup>
- 60 km/h variable speed limits where there is an identified turning traffic risk.<sup>11</sup> This generally applies outside rural schools<sup>12</sup>, where there is a permanent 80 km/h speed limit or where the mean operating speed is naturally lower than 100 km/h. In these areas, RCAs are also encouraged to build traffic bays off the main roads to reduce any pedestrian risks.

Despite the current guidance, estimates are that only around 20 percent of schools have speed limits that align with the guidance. This is partly due to the current onerous process RCAs must go through to set speed limits. If no action is taken, most speed limits around schools will continue to be default speed limits (which are no lower than standard urban and open road limits), or speed limits that do not align with recommendations in the Speed Management Guide and Safer Journeys for Schools Guide (both of which are also being revised).

#### DSIs around schools

The number of minor injuries involving school-aged children has reduced over recent years, although there has been a plateauing trend of the number of serious injuries. Table 2 shows that there are not significant numbers of road-safety-related incidents around schools compared to other parts of the road network. However, the roading environment

<sup>10</sup> A school that has an access or frontage which is in an urban traffic area.

<sup>11</sup> The turning risk is assessed from traffic speeds and volumes, number of turning vehicles, sight distances, and how students travel to and from school - *Speed Management Guide – Volume 2*.

<sup>12</sup> A school that has an access or frontage which is not located in an urban traffic area.

around schools can often be complex and varies from school to school. Many children are unable to understand and manage the associated risks.

**Table 2: Number of crashes within 250m of a school involving school-aged children**

Year	Crashes* within 250 m of a school involving school-aged children (5-17 years) where a child was injured or killed		
	Fatal crashes	Serious injury crashes	Minor injury crashes
2008	1	28	146
2009	0	29	152
2010	0	14	169
2011	1	17	144
2012	1	21	132
2013	2	21	98
2014	0	17	101
2015	0	21	108
2016	1	29	104
2017	1	22	125
2018	1	25	111
2019	0	24	143
2020	0	12	123
2021**	2	17	102

\* Limited to crashes occurring between 6:30-9am and 2-4:30pm on weekdays (excludes January due to school holidays).

\*\* Data extracted from CAS database on 09/12/2021.

### Why does the current situation constitute a problem?

Current default speed limits around schools are often not the recommended safe and appropriate speed limits, although there are not significant numbers of road safety-related incidents around schools compared to other areas of the network. However, there have still been an average of 136 crashes a year over the last decade involving school-aged children outside schools, where a child has been injured or killed (see Table 2 above).

Over the last few decades there has been a decline in numbers of children walking or cycling to school from 54 percent in 1989/90 to 31 percent in 2010-2014. While walking was once the most common way to get to school, now less than a third of children walk or cycle to school.<sup>13</sup> The societal benefits of increasing the number of children who walk or cycle to school makes it important for our transport policy to support a return to high levels of active travel to school. This will only happen though if parents feel it is safe to let their children walk or cycle to school. Safer speed limits are an important factor in that decision.<sup>14</sup>

Historically, speed management decisions have primarily focussed on the trade-off between reducing crashes and transport efficiency. While these factors remain important concerns, there is strong support for some speed management decisions to take account of a broader range of issues. This includes how speed management can support better

<sup>13</sup> Te Manatū Waka (2015). 25 Years of New Zealand travel: New Zealand household travel 1989-2014. The percentage of 5–12-year-olds who walked to school dropped from 42% in 1989/90, to 29% in 2010–14, while cycling dropped from 12% in 1989/90 to 2% in 2010–14.

<sup>14</sup> Gerrard J. (2008). Safe speed: Promoting safe walking and cycling by reducing traffic speed. The Heart Foundation, Safe Speed Interest Group.

access and support healthier walking and cycling transport options. Currently, there may be some roads where the DSI risk is low but there is still a good case for lowering the speed limit.

Walking and cycling to school has health benefits for children. These benefits include increased physical activity (with subsequent benefits for reduced risk of obesity and a range of diseases), improved mental health, and improved concentration and ability to learn at school.<sup>15</sup> For children, using active transport to and from school is an important way for them to get some physical activity each day. School trips made by car also contribute significantly to congestion during the morning peak (and extend the afternoon peak) and increase greenhouse gas and other harmful pollution.

### What does the evidence say?

Research shows that a pedestrian's likelihood of being killed or seriously injured reduces by approximately half when the impact speed reduces from 50 km/h to 40 km/h<sup>16</sup>. A pedestrian's likelihood of being killed or seriously injured reduces by approximately half again when the impact speed reduces from 40 km/h to 30 km/h (that is, a pedestrian is typically four times more likely to be killed or seriously injured if struck by a vehicle at 50 km/h compared to at 30 km/h)<sup>17</sup>.

In general, 40 km/h speed limits provide travel speeds that result in 30 km/h collision impact speeds following normal reaction and braking responses. Travel speeds for 50 km/h speed limits will generally result in collision impact speeds of 40 km/h or more. Reducing speeds in areas where there are high numbers of active transport mode users interacting with motorised traffic can have significant safety benefits. In addition, the International Transport Forum (ITF) found that pedestrians, cyclists, and motorcyclists account for nearly 80 percent of urban traffic fatalities<sup>18</sup>.

Overall, the research notes that 30 km/h is generally considered appropriate in built-up areas where active transport road users and motor vehicle traffic share the same space. This is reinforced in the ITF's 2018 report on speed and crash risk. However, the ITF still notes that when working towards a safe system, 30 km/h or 40 km/h speed limits could be appropriate in urban areas.

### Approach in other jurisdictions

#### Urban schools

In the Canadian cities of Calgary and Saskatoon, 30 km/h variable speed limits operate at specific times of the day when children are expected to be present. In most Australian states, 40 km/h variable speed limits apply on roads around schools that have a permanent speed limit of 70 km/h or less. In many cities in the UK and in some parts of the

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<sup>15</sup> Vinther. D. (2012). ScienceNordic.Com. <https://sciencenordic.com/children-and-adolescents-denmark-exercise/children-who-walk-to-school-concentrate-better/1379550>.

<sup>16</sup> Kröyer. H. R. G., Jonsson, T., Varhelyi, A. (2014). Relative fatality risk curve to describe the effect of change in the impact speed on fatality risk of pedestrians struck by a motor vehicle. *Accident Analysis and Prevention*, 62, 143-152.

<sup>17</sup> Actually, there is considerable variability in pedestrians' casualty risk. This is largely dependent on the size, shape, and weight of the vehicle involved, and the age and physical resiliency of the pedestrian.

<sup>18</sup> Santacreu. A. (2018). Safer City Streets: Global Benchmarking for Urban Safety. International Transport Forum Working Document, OECD. This is based on international data and numbers are likely to differ for some urban areas in New Zealand.



USA, permanent 20 mph (32 km/h) speed limits have been implemented around schools and residential neighbourhoods.

### **Rural schools**

In most Australian states, 60 km/h variable speed limits are applied on roads around schools that have a permanent speed limit of 80 km/h or more. Speed limits of 50 km/h are generally applied around rural schools across Canada. However, this varies between 30 km/h (in British Columbia) and 60 km/h (on Prince Edward Island).

## **2.2 Who is affected and how?**

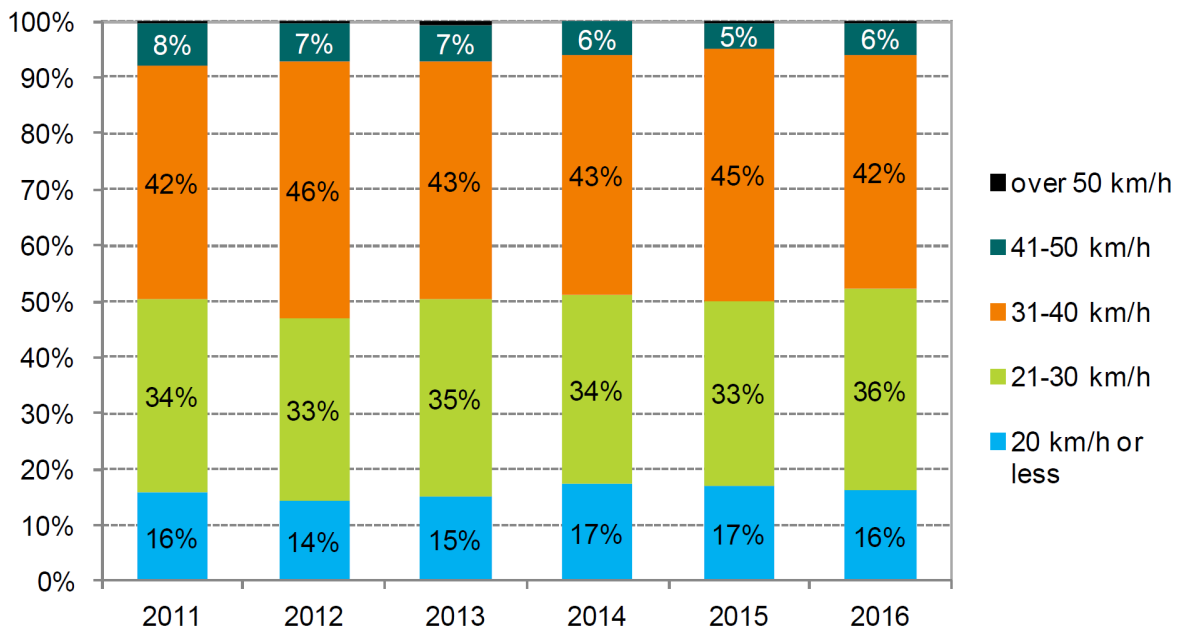
School children and their families are primarily affected by the current speed limit settings around schools. Speeds limits that are not safe or appropriate result in crashes that could have been less severe or avoided and discourage active transport modes.

We aim to change the behaviour of motorists on roads around schools and in turn the choices parents and children make about trips to and from school. This can be achieved by influencing the decisions made by RCAs about speed limits around schools. If actual travel speeds are lowered around schools, through a combination of approaches including lowering speed limits, infrastructure treatments and altering driver behaviour, these areas would become safer and more attractive and accessible for children to walk and cycle around.

### **Urban schools**

There has been ongoing demand for 30 km/h speed limits around urban schools (variable and permanent) from various councils and communities, including Auckland City, Hamilton City Council, Napier City Council and Dunedin City Council, which are currently actively pursuing lower speed limits around schools. Te Manatū Waka 's *Public Attitudes to Road Safety* survey indicated that each year from 2011 to 2016, when the survey stopped, at least 92 percent of respondents considered that the speed limit around urban schools should be no greater than 40 km/h (refer Figure 1 below).

**Figure 1: Speed limits around urban schools should be... (Public Attitudes to Road Safety survey)**



The Waka Kotahi 2020 *Public Attitudes to Road Safety Report* also indicates that there is now increased support for lower speed limits around schools in urban areas. Sixty eight percent of respondents suggested there should be 30km/h or lower speeds in these areas, compared to 52% in the Te Manatū Waka 2016 report.

A range of other stakeholders, including the Reference Group, also endorsed lower speed limits around urban schools. However, there is no consensus from RCAs about whether a 30 or 40 km/h speed limit is more appropriate, or whether permanent or variable speed limits are more suitable.

### Rural schools

The Reference Group and other groups that have been consulted also support applying safer speed limits around rural schools. However, there is a strong desire for RCAs to have flexibility in implementing the speed limit that makes the most sense around each rural school. This is due to there being considerable variation in the surrounding environments, the current speed limits, the isolation, and the size of rural schools, which all influence the level and type of activity around rural schools during school times.

### 2.3 Are there any constraints on the scope for decision making?

Permanent speed limit changes around schools were ruled out of scope after initial consideration, as all RCAs indicated that the types of environments and roads surrounding schools can differ significantly. Any change requiring a significant reduction in permanent speeds would likely be unsuitable around some schools at certain times. There was strong support for speed reductions around all schools, but with the option of these being implemented through variable speed limit changes. This approach allows RCAs the flexibility to tailor speed limit changes to the range of environments that schools may be located in. Therefore, all options explored below allow for variable speed limits.

Only speed limit changes facilitating overall lower speed limits around schools have been considered in this options analysis. The Government has indicated support for introducing

safer speed limits around schools and previous Cabinet decisions have agreed to this approach [DEV-18-MIN-0025, DEV-19-MIN-0175, CAB-19-MIN-0575 refer]. Safer speed limits could also be supported by other programmes to encourage active transport mode use, but these will be explored separately.

Broader constraints on the scope for decision making and interdependencies of the overall package of proposals are outlined in Chapter 1: Section 2.3.

## Section 3: Options identification

### 3.1 What options have been considered?

Implementing safer speed limits on roads around schools will lower actual travel speeds, making these areas safer, and more attractive and accessible for children to walk and cycle around.

Initial options considered and consulted on focussed on separate options for urban and rural schools transitioning to lower school speed limits. Relatively higher possible speed limits were proposed as a preferred option around rural schools.

However, our latest public consultation highlighted significant concerns around the perception that rural children were not protected to the same extent as urban children, given the higher maximum speed limits proposed. This concern led us to formulate a new option (Option 3) for all schools, where schools are not explicitly categorised for speed as being rural or urban.

Each option is assessed against the status quo. The changes proposed in all options below could be planned for and implemented through any of the options outlined in Chapter 1.

#### Urban schools

The options identified below focus on lowering the speed limits around urban schools to no more than 40 km/h. All options would allow RCAs some flexibility to determine the appropriate area around the school that would receive a speed management treatment.

**Option 1a:** Allow 30 km/h variable speed limits to be implemented around urban schools without having to meet all the current requirements set out in the 2017 Rule. Implementing 30 km/h speed limits would be optional for RCAs.

**Option 1b:** Require 30 km/h speed limits (variable or permanent) to be implemented around all urban schools in an agreed timeframe.

**Option 1c:** Require a maximum of 40 km/h speed limits (variable or permanent) to be implemented around all urban schools in an agreed timeframe. RCAs would have the option of implementing 30 km/h speed limits outside schools.

**Option 1d:** Require 30 km/h speed limits (variable or permanent) to be implemented around all urban schools in an agreed timeframe. RCAs would also have the option of implementing 40 km/h speed limits where appropriate.

## Rural schools

The options considered below were focussed on introducing a mandatory requirement to reduce the speed limits around rural schools. Both options would allow RCAs some flexibility to determine the appropriate area around the school that would receive a speed management treatment.

The changes proposed in the options below could be planned for and implemented through any of the options outlined in Chapter 1.

**Option 2a:** Require a maximum speed limit of 60 km/h (variable or permanent) to be implemented outside all rural schools in an agreed timeframe. RCAs would have the option of introducing lower speed limits in areas where it was considered appropriate.

**Option 2b:** Require maximum speed limits (variable or permanent) around all rural schools to be the same as those around urban schools (this is dependent on the preferred option for lower speed limits outside urban schools but would reduce speed limits to a maximum of 40 km/h).

## All schools – two-level categorisation

Option three provides an alternative approach by not explicitly categorising schools according to urban or rural location. Rather, schools would be categorised according to whether the nature of their location is appropriate for either one of two lower or higher categories of speed limit.

**Option 3:** Categorise schools into either 'Category one' or 'Category two' for school speed limits, to be implemented in an agreed timeframe, as follows:

- Category one - require 30 km/h speed limits (variable or permanent) as a default. However, schools with 40 km/h speed limits in place prior to consultation on the draft Rule would be in category one and could retain these 40km/h speeds. Where 40 km/h speeds are used, they would be applied for three years, after which RCAs would need to reconfirm once that the speed limit was still suitable.
- Category two - provide for up to 60 km/h speed limits, with an explanation in SMPs required of why the higher speed is appropriate. Where these higher speeds are used, they would be applied for three years, after which RCAs would need to reconfirm once that the speed limit was still suitable.

## Assessment criteria

### **Effectiveness – improve accessibility and encourage a shift to active modes**

Preferred interventions should improve accessibility and encourage a shift to active modes of transport. Speed management has historically been focussed on the balance between limiting DSIs and 'efficiency' of travel (that is, travel speeds for motorists). However, speed management also has a role to play in determining 'appropriate' speed limits for areas with high numbers of pedestrians and cyclists using the roads and surrounding areas.

### **Effectiveness – road users travel at safe and appropriate speeds**

Preferred interventions should aim to ensure road users travel at safe and appropriate speeds for the road they are travelling on. In the event of a crash, regardless of its cause,

the speed of impact is the most important determinant of the severity of injuries sustained and the probability of death. A key focus for speed management is ensuring speed limits are set at safe and appropriate speeds.

### **Implementation – cost and timing**

Preferred interventions should be as low cost as possible. There is strong interest from a variety of stakeholders to see improvements to speed management as soon as possible.

### **Ongoing compliance and administration costs**

Preferred interventions should be as simple and low cost as possible for road users to comply with and for regulators to administer.

### **Key stakeholder support and public acceptance**

Waka Kotahi, RCAs and NZ Police all have a range of speed management and enforcement responsibilities. Preferred interventions should be implementable and generally understood and supported by the organisations with implementation, investment, and operational responsibilities. Speed limit setting is also often an important concern for local communities.

## **Other option considerations**

### **Prescriptive implementation requirements could lead to undesirable outcomes**

Options that included prescriptive requirements about the type and extent of speed limit reductions were considered (for example, 'RCAs would be required to reduce speed limits on all roads within a 250-metre radius of the school' or 'speed limit reductions must be permanent speed limit reductions'). We do not consider this type of approach viable.

There are a range of environments surrounding schools and a mixture of roads serving different purposes. For some roads close to schools, there would be little benefit (and significant cost) to reducing the speed limit (for example, an urban school may be very close to, but well-separated from, a motorway, which would never be appropriate for children to use to walk or cycle to school. Lowering the speed limit would be a substantial disruption to motorists).

RCAs have indicated support for lower speed limits around schools but have expressed the need for RCAs to have flexibility to determine how this is implemented. All options allow RCAs to consider the environment surrounding each school and tailor speed management treatments appropriately.

### **There may be limited scope for encouraging active modes of transport around rural schools**

Analysis of options for rural schools will consider the impact of lower speed limits on supporting more active communities. However, the potential impact for rural schools is expected to be much lower than for urban schools. On average, rural schools are likely to be more isolated, smaller, have less activity and fewer people coming and going, have fewer options for travel to and from school and be located on roads that are less suited to active modes of transport. Therefore, the potential safety impacts (relative to the support for liveable communities) are likely to be more important for rural schools as there is limited capacity to improve active mode use in the surrounding area.

## Options analysis – safer speed limits around urban schools

	Option 1: No action	Option 1a: Allow 30 km/h variable speed limits to be implemented outside urban schools more easily	Option 1b: Require 30 km/h speed limits (variable or permanent) to be implemented around all urban schools	Option 1c: Require 40 km/h speed limits (variable or permanent) to be implemented around all urban schools (with the option of 30 km/h speed limits)	Option 1d: Require 30 km/h speed limits (variable or permanent) to be implemented around all urban schools (or 40 km/h speed limits where appropriate)
<b>Effectiveness - motorists travel at safe and appropriate speeds</b>	0	+ This option would reduce mean travel speeds on roads outside some urban schools. It's uncertain how many RCAs would reduce speed limits to 30 km/h. It has taken many years for roads surrounding an estimated 20 percent of schools to have 40 km/h speed limits.	++ This option would reduce mean travel speeds on roads outside all urban schools, by ensuring 30 km/h speed limits are in place. Noting that in some cases 30 km/h may not be an 'appropriate' speed limit.	++ This option would reduce mean travel speeds on roads outside urban schools. RCAs would have the flexibility to determine where 30 km/h and 40 km/h speed limits are appropriate. It's uncertain how many RCAs would reduce speed limits to 30 km/h.	++ This option would reduce mean travel speeds on roads outside urban schools. RCAs would have the flexibility to determine where 30 km/h and 40 km/h speed limits are appropriate. With 30 km/h speed limits as the default this is expected to lead to the introduction of more 30 km/h speed limits.
<b>Effectiveness – improve access and mode shift</b>	0	+ Where applied, this option is expected to improve access and encourage a shift to active mode use, if accompanied by consideration of the surrounding area	++ This option would improve access and should encourage a shift to active mode use. Effectiveness will rely on RCAs considering the broader environment around a school.	++ This option would improve access and may encourage a shift to active mode use. Effectiveness will rely on RCAs considering 30 km/h speed limits and the broader environment around a school.	++ This option would improve access and may encourage a shift to active mode use. Effectiveness will rely on RCAs considering 30 km/h speed limits and the broader environment around a school.
<b>Cost and speed of implementation</b>	0	0 RCAs only make speed limit changes they choose to make (no mandated changes). There will be no change in the cost of installing electronic 30 km/h variable signage compared to 40 km/h signage.	-- There would be significant costs associated with implementing 30 km/h speed limits. In some cases, infrastructure treatments may be necessary to accompany 30 km/h speed limits. Costs of new signage and engagement with the public. Some RCAs have recently incurred costs of introducing 40 km/h speed limits outside schools and they would have to go through the speed limit change process again.	-- There would be significant costs associated with infrastructure, signage replacement and engagement with the public (although some areas already have 40 km/h speed limits in place). RCAs will have flexibility to determine the most appropriate intervention (e.g., 30 km/h or 40 km/h and whether infrastructure investment is appropriate).	-- There would be significant costs associated with infrastructure, signage replacement and engagement with the public (although some areas already have 40 km/h speed limits in place). RCAs will have flexibility to determine the most appropriate intervention (e.g., 30 km/h or 40 km/h and whether infrastructure investment is appropriate). More 30 km/h speed limits may result in higher infrastructure costs and potentially slower implementation.
<b>Ongoing compliance and administrative costs</b>	0	0 This option would reduce the administrative costs for RCAs wanting to reduce speed limits around urban schools to 30 km/h (there would still be many implementation costs). There may be a minor increase in road user travel times.	-- Once implemented, there should be no increase in ongoing administrative costs for RCAs. There may be a minor increase in road user travel times, and perhaps ongoing compliance concerns in those areas where 30 km/h not an 'appropriate' speed limit.	- Once implemented, there should be no increase in ongoing administrative costs for RCAs. There may be a minor increase in road user travel times.	- Once implemented, there should be no increase in ongoing administrative costs for RCAs. There may be a minor increase in road user travel times.
<b>Key stakeholder support and public acceptance</b>	0	- There is strong public and RCA support for speed limits no greater than 40 km/h around all urban schools. This option is likely to receive opposition as there is no formal requirement for RCAs to change existing 50 km/h speed limits.	+ There is strong public and RCA support for lower speed limits around urban schools, although some stakeholders consider 40 km/h to be sufficient or more appropriate in some circumstances. Various RCAs have recently incurred the cost of reducing speed limits to 40 km/h.	++ There is strong public and RCA support for speed limits no greater than 40 km/h around urban schools. Many consider 30 km/h to be more appropriate and this option allows both where appropriate.	++ There is strong public and RCA support for speed limits no greater than 40 km/h around urban schools. Many consider 30 km/h to be more appropriate and this option allows both where appropriate.
<b>Overall assessment</b>	0	+	++	++	++

Note: effectiveness criteria are weighted more heavily than key stakeholder support/public acceptance

## Options analysis – safer speed limits around rural schools

	Option 2: No action	Option 2a: Require a maximum speed limit of 60 km/h (variable or permanent) to be implemented outside all rural schools in an agreed timeframe	Option 2b: Require maximum speed limits around all rural schools to be the same as those around urban schools (that is, maximum speed limits of 40 km/h).
<b>Effectiveness - motorists travel at safe and appropriate speeds</b>	0	++ This option would likely reduce mean travel speeds on roads outside rural schools.	++ This option would likely reduce mean travel speeds on roads outside rural schools. However, discussion with stakeholders indicated concerns about compliance and the risks associated with motorised traffic travelling at a range of different speeds. This is more likely to occur if 40 km/h or lower speed limits are introduced on rural roads.
<b>Effectiveness – improve access and mode shift</b>	0	0 This option could improve access and encourage more active modes, but this effect is expected to be minimal in many cases. Often rural schools do not have suitable infrastructure or broader roading environments to support this, or children live too far from school.	0 This option could improve access and encourage more active modes, but this effect is expected to be minimal in many cases. Often rural schools do not have suitable infrastructure or broader roading environments to support this, or children live too far from school.
<b>Cost and speed of implementation</b>	0	- There would be costs associated with new signage, infrastructure as needed and engagement with the public. RCAs would be required to plan for and implement all new speed limits outside rural schools as a priority through the proposed SMPs.	- - There would be costs associated with new signage, infrastructure as needed and engagement with the public. Additional staggered speed limit reductions and/or infrastructure investment is likely to be needed in some cases to implement speed limits below 60 km/h. RCAs would be required to plan for and implement all new speed limits outside rural schools as a priority in the first SMPs.
<b>Ongoing compliance and administrative costs</b>	0	- Once implemented, there should be no increase in ongoing administrative costs for RCAs. There would be a minor increase in road user travel times.	- - Once implemented, there should be no increase in ongoing administrative costs for RCAs. There would be some increase in road user travel times.
<b>Key stakeholder support and public acceptance</b>	0	+ This option is expected to be largely supported by RCAs and received mixed but on balance positive views from the public.	0 This option will likely receive mixed and some strongly polarised views from the public and RCAs.
<b>Overall assessment</b> (effectiveness criteria are weighted more heavily than key stakeholder support/public acceptance)	0	+	-

## Options analysis – safer speed limits around all schools- two level categorisation

	Option 3: No action	<p>Option 3: Categorise all schools for associated speed limits into either:</p> <ul style="list-style-type: none"> <li><b>Category one</b> - require 30 km/h speed limits (variable or permanent) as a default, or 40 km/h with an explanation of appropriateness in a SMP. However, schools with 40 km/h speed limits prior to consultation on the draft Rule could also retain these under this category. Where a 40km/h speed used, this would be applied for three years, after which RCAs would need to reconfirm once that the speed limit was still suitable.</li> <li><b>Category two</b> - provide for up to 60 km/h speed limits (variable or permanent), with an explanation in SMPs required of why the higher speed is appropriate. Where these higher speeds are used, they would be applied for three years, after which RCAs would need to reconfirm once that the speed limit was still suitable.</li> </ul>
<b>Effectiveness - motorists travel at safe and appropriate speeds</b>	0	<p>++ This option would likely reduce mean travel speeds on roads outside all schools. With 30 km/h speed limits as the default, this is expected to lead to introducing more 30 km/h speed limits. However, it also allows the flexibility of setting up to 60 km/h limits where appropriate, based on the contextual environment of the school.</p>
<b>Effectiveness – improve access and mode shift</b>	0	<p>+ This option would improve access and may encourage a shift to active mode use predominantly for category one schools more likely to be in cities and towns or 'built up' areas. Effectiveness will rely on RCAs considering 30 km/h speed limits and the broader environment around a school. As regards category two schools, most of which will be in areas away from cities and towns (in non 'built-up' areas, effectiveness is expected to be minimal in many cases. Often, schools in areas away from cities and towns do not have suitable infrastructure or broader roading environments to support this, or children live too far from school.</p>
<b>Cost and speed of implementation</b>	0	<p>- - Around category one schools there would be significant costs associated with infrastructure, signage replacement and engagement with the public (although some areas already have 40 km/h speed limits in place). However, RCAs will have flexibility to determine the most appropriate intervention (e.g., 30 km/h or 40 km/h and whether infrastructure investment is appropriate). More 30 km/h speed limits will likely result in higher infrastructure costs and slower implementation. Around category two schools there would also be costs associated with new signage, infrastructure as needed and engagement with the public (albeit at lower levels due to lower numbers of schools in this category). RCAs would be required to plan for and implement all new speed limits outside category two schools as a priority through the proposed SMPs.</p>
<b>Ongoing compliance and administrative costs</b>	0	<p>- - There will be limited extra administrative costs for RCAs, given the need to review speed limits over 30 km/h once after being set. There would be a minor increase in road user travel times.</p>
<b>Key stakeholder support and public acceptance</b>	0	<p>++ There is strong public and RCA support for speed limits no greater than 40 km/h around schools that would now mostly be defined as category one schools under this option. Many consider 30 km/h to be more appropriate for schools in 'built up' areas and this option allows both 30 km/h and 40km/h where appropriate. RCAs largely supported 60 km/h maximum speed limits around what would mostly now be defined as category two schools in this option, but the education sector and wider public were uncomfortable that 'urban' children were perceived to be exposed to higher risk than 'rural children'. This option mitigates that by categorising schools related to local context and risk, rather than as 'urban' or 'rural' per se.</p>
<b>Overall assessment (effectiveness criteria are weighted more heavily than key stakeholder support/public acceptance)</b>	0	<p>++</p>



### 3.2 Which of these options is the proposed approach?

The proposed approach is **Option 3**: Categorise all schools for associated speed limits into either:

- Category one - require 30 km/h speed limits (variable or permanent) as a default. However, schools with 40 km/h speed limits in place prior to consultation on the draft Rule would be in category one and could retain these 40 km/h speeds. Where a 40km/h speed used this would be applied for three years, after which RCAs would need to reconfirm once that the speed limit was still suitable.
- Category two - provide for up to 60 km/h speed limits, with an explanation in SMPs required of why the higher speed is appropriate. Where these higher speeds are used, they would be applied for three years, after which RCAs would need to reconfirm once that the speed limit is still suitable.

Option 3 is our preferred option for two key reasons, regarding speed limit options and their corresponding categorisation. Firstly, by providing for 30 km/h speed limits as a default (with limited exceptions) for category one schools (likely in built-up areas with high vulnerable road user risk – for example, many child/adult pedestrians, cyclists, micro-mobility users), we expect the best outcomes regarding:

- increased safety and consequently reduced DSIs
- a safer and more accessible environment for a shift to more active transport modes.

By providing for up to 60 km/h speed limits for category two schools (likely in less built-up areas with lower vulnerable road user risk – for example, schools in more isolated areas where the school community generally drives or buses to school), the option best supports outcomes regarding:

- allowing higher, more appropriate speeds tailored to the risk factors applying to schools – for example, the school is set back from the road sufficiently to make a 60 km/h limit safer for pedestrians.

Secondly, in contrast to the other options considered, option 3 pairs these preferred speed limits with categorisation according to the risk factors applying to schools. This is rather than categorisation as being 'urban' or 'rural', which are not always appropriate indications of risk profile.

To a certain extent, Option 3 represents an amalgamation of the two options that would be preferred if we were proposing options based on categorising schools as 'urban' and 'rural' as originally consulted on – Options 1d and 2a. These options received assessment scores of ++ and + respectively. However, given strong education sector and public concerns at the perception in these options that 'rural' children were exposed to higher risk than 'urban' children when schools were categorised this way, we reconsidered this issue.

From further analysis, we determined that the rural/urban categorisation is an interpretation issue rather than any underlying problem that cannot be resolved. Using language such as rural or urban to categorise schools is not fit-for-purpose given the variety of specific school settings (for example, some 'rural' schools are in towns).

Option 3 mitigates this issue by categorising schools according to their location-related and other relevant risk factors (rather than being 'urban' or 'rural') and whether this makes them suitable for category one or two speed limits. We consider that this approach will help reinforce that speed conversations and decisions should focus on the specific local setting and risk factors applying to any given school. We also expect it to allow less ambiguity around delineations and boundaries regarding school locations.

In practice, most category one schools would still be in what were formerly described as 'urban' areas (ranging from cities to small towns) and most category two schools would be in 'rural' areas generally away from cities and towns. Therefore, the earlier urban and rural options comparisons are still relevant to discussing Option 3, which uses the same features of Options 1d and 2a in relation to category one and two schools respectively.

Category one of Option 3 is likely to lead to broadly similar outcomes as Option 1c (reducing speed limits around urban schools to 40 km/h, with the option of implementing 30 km/h speed limits if appropriate). However, Category one of Option 3 is preferred as it sends a stronger signal to RCAs to reduce speed limits to 30 km/h around schools where higher speeds (likely in more built-up areas) would pose risks.

This option aligns with the research suggesting that 30 km/h speed limits are appropriate in these areas, is consistent with the approach taken in other jurisdictions, but also reflects the fact that 40 km/h speed limits may be more appropriate around some schools likely to be in category one, and that some schools already have 40 km/h speed limits on roads around them.

Assuming there is agreement to the new regulatory framework described in Chapter 1, all speed limit changes around schools would have to be planned for in the SMPs and implemented over the 10 years of Road to Zero.

### **Category one schools**

Category one schools are more likely to be in built-up or urban areas (towns, cities). They are also more likely to have their school communities living reasonably close to the school and consequently to have higher proportions of child or adult vulnerable road users in their vicinity (pedestrians, cyclists, micro-mobility users). They will also likely include schools where the school has a main entrance or exit close to the road. Consequently, lower speed limits (variable or permanent) will be required around these schools.

RCAs will also be encouraged to implement safer speed limits in the wider vicinity of category one schools. Broader speed management changes across a wider area, supported by safety infrastructure where appropriate, will have greater safety, access, and mode shift benefits. Children's routes to school can typically extend several kilometres from the school, and for children to feel safe using active travel modes, speed limits across this wider area need to be considered.

Requiring RCAs to reduce speed limits to 30 km/h around category one schools, supported by traffic calming infrastructure where appropriate, and by enforcement and road safety education to encourage behavior change, is supported by research outlined in section 2.1.

Where RCAs have already introduced 40 km/h speed limits around schools, these areas would be exempt from requirements to carry out further speed management changes. It

may not be appropriate to introduce permanent traffic calming infrastructure<sup>19</sup> on some roads around schools, particularly arterial roads. In these cases, variable speed limits are likely to be more appropriate.

### **Category two schools**

Category two schools are more likely, but not exclusively, to be in less built-up or isolated (perhaps rural) areas where risks to vulnerable road users may be less. This will depend on factors like existing safety infrastructure and the travel modes of the school community.

Introducing up to a maximum of 60 km/h speed limits around category two schools best balances the safety benefits and the flexibility for RCAs to adopt the most appropriate speed limit for the environment. Speed limits of 40 km/h, 50 km/h or 60 km/h would be possible depending on the risk factors existing in relation to schools' location and road users' transport methods.

RCAs using these higher speed limits would need to include an explanation in the SMP about how Safe System principles will be met. The explanation would need to confirm there was low risk to vulnerable road users (for example, 50-60km/h may be appropriate where active transport is not practical due to distances and pupils are generally taken to and from school in vehicles). Alternatively, RCAs may need to confirm that the risk for pedestrians and cyclists has been mitigated through safety infrastructure (for example, 40km/h may be appropriate where a separated cycle lane had been provided).

RCAs will also be encouraged to build traffic bays outside category two schools off main roads, to reduce remaining pedestrian risks.

In rare situations where schools in built-up areas are located on roads with existing 60 or 70 km/h speed limits, it may not be appropriate and desirable to implement 30 km/h speed limits. These schools would therefore become category two schools. In such instances, appropriate infrastructure should be in place and RCAs will have the flexibility to determine the most appropriate speed limit on a school-by-school basis.

In many cases, a variable speed limit would be appropriate to manage safety risks during school times. RCAs would be encouraged to consider permanent speed limit reductions on roads around category two schools where the recommended safe and appropriate speed limit is lower than the current speed limit. In these areas, RCAs are also encouraged to build traffic bays off the main roads to reduce any pedestrian risks and these should already be in place outside many schools.

Where a school is located on a State highway, Waka Kotahi is the responsible RCA. Waka Kotahi would work in consultation with the relevant RCA to determine the best approach to implementing safer speed limits in these areas.

Reducing speed limits around all schools to 30 km/h or 40 km/h was considered but is not recommended. While there was some support for this approach, various stakeholders identified strong concerns with a speed limit of 30 km/h being required around all schools, including those away from built-up, more populated areas presenting lower risks. This could lead to poor levels of compliance and motorists travelling at a variety of speeds, which can cause safety issues.

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<sup>19</sup> Changes to the road or road environment designed to encourage safer travel speeds (for example, raised platforms or chicanes).

# Section 4: Impact Analysis (Proposed approach)

**4.1 Summary table of costs and benefits**

Indicative costs are provided in the table below. Each RCA will determine how speed limit reductions will be implemented, whether they are permanent or variable speed limits and whether supporting traffic-calming infrastructure is needed. RCAs would roll out infrastructure changes as a priority as part of each RCA’s broader programme of road maintenance and renewals.

Affected parties <i>(identify)</i>	Comment: nature of cost or benefit (e.g., ongoing, one-off), evidence and assumption (e.g., compliance rates), risks	Impact <i>\$m present value, for monetised impacts; high, medium, or low for non-monetised impacts</i>
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Additional costs of proposed approach, compared to taking no action		
Regulated parties	Increases in travel times for motorists, including motorists travelling for commercial or business reasons, who may therefore incur limited business cost increases.	Low  Often variable speed limits only apply at school start and finish times.
Regulators	<p>A proportion of RCAs (including Waka Kotahi) will be required to install new signage near schools. These will be one-off costs and often variable signs.</p> <p>In some cases, infrastructure changes will also be needed to support speed limit reductions. RCAs will be able to determine the most appropriate intervention around each school.</p> <p>RCAs will be encouraged to consider speed limit reductions to broader residential areas where appropriate. This kind of broader change may be cheaper to implement.</p> <p>Costs are estimated for treating 1,700 schools (not all schools will need treatments) at three different levels of need:</p> <ul style="list-style-type: none"> <li>• Basic signage and markings for 37.5% of schools (around \$25,000 per school)</li> <li>• Basic signage and markings plus additional electronic variable speed limit signs for 37.5% of schools (around \$75,000 per school)</li> </ul>	<p>Based on treating 1,700 schools:</p> <ul style="list-style-type: none"> <li>• 37.5% (638) schools at \$25,000 = \$15.9 million</li> <li>• 37.5% (638) schools at \$75,000 = \$47.85 million</li> <li>• 25% (425) schools at \$300,000 = \$127.5 million</li> </ul> <p>Total: \$191,250,000</p>

Regulators cont.	<ul style="list-style-type: none"> <li>Additional higher-cost infrastructure measures (such as speed humps, chicanes, and road narrowing) for 25% of schools (around \$300,000 per school)</li> </ul>	
	National publicity and education campaign (Waka Kotahi)	\$3 - \$5 million
	Cost to change the National Speed Limit Register (Waka Kotahi)	\$50,000
	Planning process costs to Waka Kotahi and RCAs	Low
Wider government	NA	
Other parties	Customers or business associates of motorists travelling for commercial, or business reasons may incur limited increased costs, subject to any delays to the motorists, if costs are passed on.	Low
<b>Total Monetised Cost</b>		\$196,300,000
<b>Non-monetised costs</b>		Low

Expected benefits of proposed approach, compared to taking no action		
Regulated parties	<p>Fewer vehicle drivers and occupants (school children/adults) involved in crashes in the vicinity of schools and lower resulting crash-related trauma/damage.</p> <p>Less congestion around schools for motorists.</p>	<p>Medium - although crashes around schools are limited there is still expected to be a safety benefit.</p> <p>The extent of crashes prevented will depend on an interactive mix of speed limit, safety infrastructure, enforcement, and driver behaviour in response - in relation to the schools' road safety risk profile.</p> <p>Low</p>
Regulators	Improved relations with the public (particularly school communities) through increased road safety around schools.	Low
Wider government	Reduced use of healthcare resourcing in treating crash-related injuries	Low

Other parties	Decreased number of crashes causing injury or death for road users outside vehicles around schools (including pedestrians - school children/adults and cyclists).	Medium
	More children walking and cycling to and from school (associated physical and mental health benefits and less car use, meaning less congestion and carbon emissions)	Speed limits (and accompanying infrastructure) will be an important factor in decisions for children and parents adopting active transport modes.
	Perceptions of safety for road users (this will be largely captured by DSI reductions and active mode use, but there are broader place-making benefits for the community of people feeling safer, beyond avoided crashes and children taking up active mode use)	Low
<b>Total Monetised Benefit</b>		NA
<b>Non-monetised benefits</b>		Medium

## Section 5: Stakeholder views

### 5.1 What do stakeholders think about the problem and the proposed solution?

Te Manatū Waka and the then Associate Minister of Transport received feedback from attendees at the Local Government Road Safety Summit in April 2018 about the challenges local government was facing regarding speed management, and potential interventions that would effectively address these challenges. There was widespread support for policies to improve safety around schools to promote walking and cycling. There was also discussion about the specific option of lower speed limits around schools (30 km/h was suggested), especially during school hours.

Te Manatū Waka discussed the high-level policy proposals outlined in this Regulatory Impact Analysis in detail with the Reference Group between September and November 2018. Members of the Reference Group strongly supported introducing lower speed limits around urban schools. Reference Group members also supported lower speed limits around rural schools. However, many indicated the need to allow RCAs to have the flexibility to tailor options to the specific environment around each rural school.

Throughout March and April 2019, Te Manatū Waka undertook targeted consultation with the following organisations to receive feedback on the policy proposals: Waka Kotahi, NZ Police, Automobile Association, Auckland Transport, Waikato Regional Safe Network Working Group (which consists of representatives from the Waikato Regional Council and RCAs in the Waikato region), Environment Canterbury, Christchurch City Council and Dunedin City Council. In September 2019, Te Manatū Waka undertook departmental

consultation with other government departments, as well as Local Government New Zealand.

The views of the above stakeholders were similar to those of the Reference Group. However, there were some areas of disagreement, as noted below:

- NZ Police and ACC supported RCAs having the ability to reduce speed limits to 30 km/h around all schools, including rural schools.
- Waka Kotahi supported consideration of a change in the urban default speed limit for residential access streets to 40 km/h, which it considered would deliver significant safety and health benefits for active modes and deliver lower speed limits around 1,000 urban schools at relatively low cost.
- ACC and the Office for Seniors wanted to see safer speed limits considered around other high-risk areas such as retirement villages, and important sites in communities such as maraes on State highways.

Public consultation on the proposed Road to Zero strategy took place between 17 July and 14 August 2019. The Tackling Unsafe Speeds proposals were discussed at a high-level in the consultation document.

Various submitters noted concerns about speed limits. Those opposed to introducing lower speed limits tended to be concerned about lower speed limits on higher speed rural roads (that is, with current speed limits of 80 km/h or 100 km/h). Comments from those in support of lower speed limits tended to focus on urban areas and around schools. Many also stated that safety infrastructure should support these speed limit reductions. These views were incorporated into proposed policy options that were consulted on in the later consultation described below.

Speed limits around schools was one of three key issues that received significant feedback from the final round of public consultation conducted on Tackling Unsafe Speeds proposals conducted between April 2021 and June 2021. This included feedback from RCAs, RTCs, and other key stakeholders including NZ School Trustees Association, Grey Power, Transportation Group NZ, Auckland Council Safety Collective, NZ Police, Brake, SafeKids Aotearoa, and individual schools.

There was widespread support, especially from submitters linked to the education sector, to reduce speed limits around schools overall. However, consultation also highlighted significant concerns regarding the perception that rural children could be exposed to higher risk than urban children, given the higher maximum speed limit proposed around rural schools.

From further analysis, we determined that the rural/urban classification was an interpretation issue rather than an underlying unresolvable problem. We considered that using language such as rural or urban to categorise schools was not fit-for-purpose given the variety of specific school settings (for example, some 'rural' schools are in towns).

This led us to re-frame our proposed approach to re-categorise rural and urban school speed limits to 'Category one' and 'Category two' school speed limits. This allows focus on the specific local settings and risk factors that apply to any given school, rather than 'urban' and 'rural' settings which are more difficult to categorise.

Many submitters also considered that there needs to be a strong behavioural shift to ensure drivers are slowing down around all schools. They considered that this would be better achieved by providing a consistent road environment around schools, with speed limits around schools all eventually becoming 30km/h. However, this did not align with Speed Reference Group member's view that RCAs needed flexibility to tailor options to the specific environment around each rural school.

## Section 6: Implementation and operation

### 6.1 How will the new arrangements be given effect?

#### Timeframes for implementation of proposed approach

##### Transitional arrangements

In recognition of the benefits of a broader network approach (and the time and complexity this may add to decision making) and the varying capacity and capability of RCAs, we propose a staggered approach to implementation. By June 2024, RCAs will be required to reduce speed limits around at least 40 percent of schools in their area of responsibility, and around all schools by the end of 2027.

##### Communications

Changes to speed limits around schools would be accompanied by a national engagement campaign. RCAs would engage in communications about specific changes with their school communities. Waka Kotahi will engage with RCAs involving development of the new Speed Management Guide to support RCAs implementing the draft Rule, in relation to school speed limits.

##### Legislative changes

If the recommended options are implemented a new Land Transport: Setting of Speed Limits Rule would be introduced. Under current timelines we expect these changes to come into effect in mid 2022. Amendments to the Speed Management Guide would follow.

##### Operation and enforcement

Waka Kotahi would have oversight of whether speed limits around schools were being planned for and implemented. In reviewing Regional SMPs, Waka Kotahi would ensure these speed limit changes were prioritised and the Director would provide comment on how the SMPs will help an RCA achieve compliance with the targets in the new rule.

##### Implementation risks

Some RCAs will have limited resourcing and capability to implement speed limits changes (particularly as they will also be expected to continue addressing the highest risk roads on the network). The proposed implementation timeframe allows for these changes to be planned for and implemented over six years.



# Section 7: Monitoring, evaluation, and review

## 7.1 How will the impact of the new arrangements be monitored?

The impacts of the proposed Tackling Unsafe Speeds programme will be monitored as part of the implementation of Road to Zero. All action plan items are intended to support reductions in the number of DSIs. As part of Road to Zero, key measures for this proposal that will be monitored include:

- Percentage of category one schools with 30-40 km/h speed limits.
- Percentage of category two schools with 60 km/h speed limits or lower.
- Mean speeds of vehicles around schools (split by category 1/category 2)
- Perceived safety of walking and cycling around schools.

RCAs would be required to plan for and implement the proposals in this chapter through the first round of speed management planning. RCAs would have a regulatory requirement to implement the SMPs. Waka Kotahi would be responsible for monitoring that RCAs implement their SMPs.

## 7.2 When and how will the new arrangements be reviewed?

Waka Kotahi and RCAs would have responsibility for developing, consulting on, and implementing SMPs which will provide direct insight into the issues with implementing the proposals in this chapter. Notable variations from the expected impacts, especially any negative impacts, will be monitored and addressed through ongoing collaboration with Waka Kotahi and RCAs.

Waka Kotahi will monitor the number of schools across the country which have speed limits compliant with the new rule.

# CHAPTER 3: Adopting a new approach to safety cameras

## Section 2: Problem definition and objectives

**2.1 What is the policy problem or opportunity?**

*There is an opportunity in New Zealand to adopt a new approach to safety cameras to discourage excessive speeds, improve compliance with posted speed limits and reduce DSIs.*

**Current situation**

New Zealand currently adopts an enforcement approach to safety cameras where cameras are not signed and enforcement can occur anywhere on the network (that is, an ‘anytime, anywhere’ approach). The main purpose of the current approach is to create a feeling among drivers that speeding can be detected at any time, and in any place, on the network.

New Zealand currently has 48 fixed safety speed cameras, 45 mobile safety speed cameras, and three red light cameras. All of these are owned and operated by NZ Police. In addition, there are 42 red light cameras owned and operated by Auckland Transport. There are a further 18 fixed safety cameras in the Waterview Tunnels owned by Waka Kotahi and operated by NZ Police, but only six of which are currently operational.

New Zealand has relatively few cameras per capita compared to other jurisdictions that have a lower number of fatalities per capita. The approach to safety cameras is one factor that can influence road safety outcomes and there is an opportunity to improve New Zealand’s approach.

**Table 3: Safety cameras and road fatalities per capita**

Jurisdiction	Safety cameras per 100,000 population <sup>20</sup>	Road fatalities per 100,000 population (2016, 2017*, 2018**, and 2019***) <sup>21</sup>
Sweden	>11	2.5*
Netherlands	9.4	3.6*
France	7.5	5.2*
Victoria (Australia)	6.6	3.3**
NSW (Australia) <sup>22</sup>	4.7	4.6**
UK	4.2	2.8
New Zealand <sup>23</sup>	2.6	7.0***

Note these figures include fixed cameras, mobile cameras, point-to-point cameras, red light cameras and combined red light/safety speed cameras. New Zealand does not currently have any operational point-to-point or combined red light/safety speed cameras.

<sup>20</sup> NZ Police research, November 2018, updated for additional NZ cameras and population changes as at 2019 (note this does not include data on the number of cameras in NSW).

<sup>21</sup> International Transport Forum (2018). Road Safety Annual Report 2018. OECD.

<sup>22</sup> New South Wales Government: Centre for Road Safety (2018). Speed Camera Programs: 2017 Annual Review. Version: 0.6. <https://roadsafety.transport.nsw.gov.au/downloads/2017-speed-camera-review.pdf>.

<sup>23</sup> Updated for 2019 camera numbers and population (includes six operational Waterview Tunnels cameras).

All infringement notices generated from the NZ Police safety camera network are processed by the NZ Police Infringement Processing System (PIPS). This system is approaching the end of being fit-for-purpose and is constrained by both capability and capacity. Under any scenario, some upgrade or replacement of the processing system will be required. Similarly, the existing fleet of mobile safety cameras will also require replacement.

All revenue generated by speeding offences is collected by NZ Police and goes into the Government's Consolidated Fund. There are no demerit points incurred by drivers for safety camera offences.

### **Opportunity to improve New Zealand's approach to the safety camera network**

Research into the approach to safety cameras in other jurisdictions has highlighted ways in which New Zealand could improve its approach.

New Zealand currently adopts an approach to safety cameras where both fixed and mobile cameras are not signed, and mobile speed enforcement can occur anywhere on the network (through 'anytime anywhere' general deterrence). However, New Zealand has relatively few safety cameras per capita compared to other jurisdictions (as illustrated in Table 3 above), and very low penalties for speeding, which greatly undermines the effectiveness of the overall approach. Further, New Zealand does not yet use camera types that have proven highly successful in overseas jurisdictions (point-to-point<sup>24</sup> and dual function red-light/speed cameras), which complement an 'anytime anywhere' policy when implemented effectively together.

Safety cameras have been effective at improving safety outcomes in other jurisdictions, particularly when they have been installed in high-risk areas of the network. For example, in France between 2003 and 2010, 2,756 safety cameras (1,823 fixed cameras and 933 mobile cameras) were installed on parts of the network where motorists frequently exceeded the speed limit. Warning signs were installed to alert drivers to the presence of fixed cameras. An evaluation of the effectiveness of the cameras was completed in 2010, estimating that over 15,000 fatalities (a 21 percent reduction) and 62,000 injuries were prevented from 2003 to 2010 by the camera programme.

Sweden has adopted an approach which recognises that road safety is an important priority for most road users, and that excessive speeds are not necessarily or always intentional. A lack of information or inattention are reasons why some motorists may exceed the speed limit. Sweden has a high saturation of cameras and drivers are informed where safety cameras are located through signage and global positioning systems. These cameras are only turned-on part of the time.

The main purpose of the approach in Sweden is to support and create a new social norm among drivers that it is easier and better to follow the speed limit. The approach adopted in Sweden aims to achieve a higher level of public acceptance and improve public perceptions of road safety more generally, as drivers do not feel persecuted or consider safety camera offences to be a revenue-gathering exercise. This also has other spill-over

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<sup>24</sup> Also known as average speed cameras. These cameras have the advantage of measuring persistent or sustained speeding by calculating the average speed of a vehicle between two points, often at least 2 km apart; rather than the (possibly) transitory speed of a vehicle at a particular point on the road.

benefits to how people view road safety and travelling at excessive speeds over broader parts of the road network.

In Sweden, this approach to safety cameras is part of a broader approach to road safety that has been successful in reducing DSIs. A 2009 study estimated that one to two years after a tranche of new cameras were installed in Sweden in 2006, the number of DSIs on these sections of the network reduced by approximately 20 percent and the proportion of drivers who exceeded the speed limit decreased by approximately 35 percent.<sup>25</sup>

Cabinet agreed in November 2019 to implement a new approach to safety cameras largely based on Sweden's 'highly visible' approach [CAB-19-MIN-0575 refers]. While there is still evidence supporting this approach to an extent, recent international evidence emerging since advice to Cabinet supports a more mixed approach whereby different approaches and camera types are used to support overall compliance through both site-specific and general deterrence mechanisms. This mixed approach requires operational flexibility to have the best impact, including in the approach to signage. The World Bank supported Global Road Safety Facility has, for example, released a 2020 guide stating:

*"Research has shown that a mix of overt and covert speed cameras generates greater road safety benefits than either one alone."<sup>26</sup>*

Recent evidence also shows that the approach being implemented in Sweden is falling short of achieving its intended outcomes despite some early evidence of improved outcomes.<sup>27</sup> This evidence highlights that even Sweden's relatively high coverage of 'highly visible' fixed cameras is insufficient on its own and to improve compliance an increase in officer-based speed enforcement may be required.

Where a more highly visible approach aligns with best practice evidence, it includes an overall increase in the number of cameras and intensity of enforcement, greater transparency in how cameras are deployed to risk, and using signage to support cameras in the right way.

This involves clearly signposting fixed and dual red light/speed safety cameras to promote transparency at those site-specific locations. It also involves clearly signposting point-to-point cameras as best practice recommends. However, mobile cameras must remain covert (unsigned) as is current practice in New Zealand, to achieve the general deterrent effect necessary to achieve DSI reductions across the network.

Table 4 below summarises the areas in which there is an opportunity to explore improvements to New Zealand's approach to safety cameras. The New Zealand approach should be influenced by the largely successful Swedish method, but also informed by recent evidence, international best practice and adapted for the New Zealand context.

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<sup>25</sup> Swedish Road Administration (2009). The effects of automated road safety cameras on speed and road safety.

<sup>26</sup> Job, S., Cliff, D., Fleiter, J.J., Flieger, M., & Harman, B. (2020). Guide for Determining Readiness for Speed Cameras and Other Automated Enforcement. Global Road Safety Facility and the Global Road Safety Partnership, Geneva, Switzerland.

<sup>27</sup> International Transport Forum (2020). Road Safety Report 2020 – Sweden. OECD.

**Table 4: Opportunities to improve New Zealand's approach to safety cameras**

	Current approach	Potential new approach
<b>Visibility and location of fixed cameras</b>	Located mainly in urban areas, largely concealed and not sign-posted	Well sign-posted, advanced warning, focus on the highest risk roads, which tend to be in rural areas
<b>Public messaging</b>	Emotional messaging about road safety	Explains purpose of the cameras in the context of the broader safety system
<b>Number of cameras and operating times</b>	Relatively small coverage of the network – but cameras are always switched on	Greater coverage of the network, but cameras could only be switched on a proportion of the time
<b>Threshold on cameras</b>	NZ Police set threshold at its discretion, often at 10 km/h but can be lower	A lower threshold could be considered once the new approach is established
<b>Ownership of the network</b>	NZ Police own and operate the camera network	Transfer ownership and operation to the infrastructure provider (Waka Kotahi)

There was general support for the 'more visible, no surprises' approach to safety cameras during consultation, noting that current evidence means this should also be supported by a more mixed approach. All RCAs support the roll out of additional cameras to target high risk areas on their road networks. There is also particular interest in the increased use of red light and point-to-point safety cameras.

This chapter considers options to move towards a more 'highly visible' approach to safety cameras, noting that we already implement some aspects of the mixed approach, including operating covert safety cameras. While an approach for the New Zealand context needs to be developed, it should be noted that there are key elements of the approach in Sweden that could contribute to its effectiveness that are not directly part of this proposal. These differences include:

- higher fines for speeding (for example, in Sweden, exceeding the speed limit by 1-10 km/h can result in a \$370 infringement fee, whereas in New Zealand exceeding the speed limit by 1-10 km/h is not often enforced and the fee is only \$30. In Sweden, travelling at 21 km/h+ over the speed limit results in a \$611 fine and 2-6 months licence suspension vs in New Zealand 21-25 km/h over the speed limit results in \$170 fine and no demerit points)
- speeding offences captured by safety cameras can have demerit points attached to them in Sweden and several other jurisdictions. This is not the case in New Zealand. Other jurisdictions have also explored alternative approaches such as driver education and good behaviour bonds
- offences captured by safety cameras in Sweden are issued directly to the driver rather than issued to the vehicle owner as is the case in New Zealand
- red light and point-to-point (average speed) cameras are not typically used in Sweden

- much greater saturation of cameras which impacts road user behaviour more broadly and may have network-wide general deterrence effects.

As noted above, increasing financial penalty levels for speeding, attaching demerits points to safety camera offences, driver education, and good behaviour bonds are not explicitly part of these Tackling Unsafe Speeds proposals. However, Te Manatū Waka is also currently undertaking a review of road safety penalties and these and other approaches to enhance penalties' effectiveness in enhancing road safety outcomes are being considered as part of that review.

## 2.2 Who is affected and how?

The approach to safety cameras primarily affects motorists. Safety cameras encourage motorists to travel within the posted speed limits. Motorists who exceed the speed limit may be detected by a safety camera and issued an infringement notice.

The effectiveness of the approach to safety cameras will impact road safety outcomes. The more motorists that are deterred from travelling at excessive speeds the fewer crashes there are likely to be where speed is a contributing factor, impacting DSI outcomes in New Zealand.

One in three (36 percent) of people surveyed in the Waka Kotahi 2020 *Public Attitudes to Road Safety* survey did not agree that safety cameras were operated fairly. Many people view safety cameras as revenue gathering tools designed to catch people out with infringements, rather than a safety-focussed intervention. One of the objectives of this proposal is to change people's negative perceptions of safety cameras, as well as improving their attitude towards excessive speeds and road safety more generally.

NZ Police is affected by the current and future approach. NZ Police is currently responsible for ownership and operation of the safety camera network but is not well-placed to be an asset manager.

## 2.3 Are there any constraints on the scope for decision making?

Changes to penalties (that is, for speed limit infringements) are out of scope for the Tackling Unsafe Speeds programme. Te Manatū Waka is conducting a separate project reviewing penalties across the transport system. Speeding offence penalties will be considered as part of the Improving Transport Legislation programme of work and changes will take a risk-based approach to penalties across the transport system.

The Road Safety Partnership brings together Waka Kotahi, NZ Police and Te Manatū Waka with a focus on improving road safety outcomes. One of the key programmes of work under the Road Safety Partnership is the Automated Compliance and Intervention Management initiative. The Automated Compliance programme has carried out considerable work on options analysis for a new infringement processing system and a range of scenarios for investment in the safety camera network, including consideration of the impacts of different camera types (fixed speed, mobile speed, red light, point-to-point, and combined red light/speed cameras). This work informs this Impact Analysis.

At this stage, specific considerations such as the location, the optimal mix and the number of new cameras and the details of the new processing system are not being assessed in this Impact Summary. Decisions on those issues are not being sought. However, further work on detailed options for investment in safety cameras and a new processing system

will continue, following agreement to the general approach to safety cameras. These issues will be operational decisions for Waka Kotahi and NZ Police.

Broader constraints on the scope for decision making and interdependencies of the overall package of proposals are outlined in **Chapter 1: Section 2.3**.

## Section 3: Options identification

### 3.1 What options have been considered?

Adopting a new approach to the safety camera network is intended to reduce DSIs on the highest risk parts of the network by improving enforcement of posted speed limits.

#### Potential options

We have identified three potential options to implement a new approach to safety cameras. These options are assessed against the status quo.

#### **Option 1 – Invest in additional cameras and install cameras on the highest risk parts of the network**

- Invest in additional safety cameras.
- Install cameras on the highest risk parts of the network where a camera placement is appropriate.

#### **Option 2 – No investment in additional safety cameras, but clearly sign-posting the locations of current fixed safety cameras and transferring ownership of cameras to Waka Kotahi**

- Current cameras would be clearly sign-posted to give motorists advanced warning of where cameras are located to provide a clear signal to slow down if speeding.
- Communications with the public would be focussed on explaining the purpose of the cameras in the context of the broader safety system discouraging unsafe speeds.
- Transfer ownership of the safety camera network to Waka Kotahi to incorporate camera placement into the broader SMP process and improve public perceptions about safety cameras.

#### **Option 3 – Invest in additional safety cameras, install cameras on the highest risk parts of the network, clearly sign-post the locations of fixed safety cameras, and transfer ownership of cameras to Waka Kotahi**

- Invest in additional safety cameras.
- Install cameras on the highest risk parts of the network where a camera placement is appropriate.
- Fixed safety cameras would be clearly sign-posted to give motorists advanced warning of where cameras are located to provide a clear signal to road users to slow down and could be only turned-on part of the time.
- Communications with the public would be focussed on explaining the purpose of the cameras in the context of the broader safety system discouraging unsafe speeds.

- Transfer ownership of the safety camera network to Waka Kotahi to incorporate camera placement into the Waka Kotahi broader speed management planning process and to improve public perceptions about safety cameras.

### Assessment criteria

The objectives of the programme of work have been reflected in the assessment criteria for the package of proposals detailed below. Particular weight has been given to ensuring road users travel at safe and appropriate speeds. The assessment criteria are:

#### **Effectiveness – there is a reduction in DSIs due to road users travelling at safer speeds on the highest risk parts of the network**

Preferred interventions should aim to ensure road users travel at safer speeds on the highest risk parts of the network (where the most DSIs occur). In the event of a crash, regardless of its cause, the speed of impact is the most important determinant of the severity of injuries sustained and the probability of death.

#### **Effectiveness – there is a reduction in DSIs due to road users travelling at safer speeds across broader parts of the road network**

Preferred interventions should aim to ensure road users travel at safer speeds across broader parts of the road network (that is, not just in areas where cameras are located).

#### **Cost and speed of implementation**

Preferred interventions should be as low cost as possible. Options that are easier and quicker to implement are preferred, all else being equal.

#### **Ongoing compliance and administration costs**

Preferred interventions should have ongoing compliance and administration costs that are as low as possible. This includes the impacts on the criminal justice system.

#### **Key stakeholder support and public acceptance**

There is currently poor public support for safety cameras. One of the objectives of this proposal is to change negative public perceptions of safety cameras. Further, public support for less tolerance of excessive speeds and improved road safety more generally is desired, to maximise public 'buy-in'.

### Considerations impacting options analysis

#### **Ownership and operation of the network**

NZ Police currently owns and operates the camera network and processes infringements. The safety camera network is a sizeable asset and additional investment in cameras would only increase the scale of the network and the associated asset management responsibilities. Waka Kotahi may be better placed to carry out this asset management function.

Waka Kotahi and RCAs could also incorporate proposed safety camera investments into their broader SMP process. Safety cameras could be considered as a speed management tool alongside infrastructure investments and speed limit changes.

Transferring full ownership, operation and processing responsibilities for the camera network would come with some complexity and cost. However, it is also likely to lead to more efficient management of the network over time.



### **Back-office processing system**

Regardless of the scale of investment in additional safety cameras, a new back-office infringement processing system is required. PIPS does not have capacity to cope with increasing internal and external volume and is not capable of processing new technology such as point-to-point cameras. In the short term, PIPS will be extended to ensure it remains functional while a new system is established.

### **Camera operating times**

In Sweden, cameras are only turned on a portion of the time. This approach could also be explored in New Zealand. It is likely to be most effective in conjunction with fixed camera signage. Signs would provide a clear signal to motorists to slow down in high-risk areas. The marginal difference in motorists' behaviour resulting from cameras being turned on 100 percent of the time or only a portion of the time, is expected to be limited. However, this could reduce the infringement processing costs and the impacts on the justice pipeline.

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## Options analysis – a new approach to safety cameras

	Status quo	Option 1 – Invest in additional safety cameras and install cameras on the highest risk parts of the network	Option 2 – No investment in additional safety cameras, but clearly sign-posting the locations of current fixed cameras and transferring ownership of cameras to Waka Kotahi	Option 3 – Invest in additional safety cameras, install cameras on the highest risk parts of the network, clearly sign-post the locations of fixed cameras, and transfer ownership of cameras to Waka Kotahi
<b>Effectiveness – there is a reduction in DSIs due to road users travelling at safer speeds on the highest risk parts of the network</b>	0	+ More high-risk areas of the network (where the most DSIs occur) will have cameras. This is expected to discourage excessive speeds in these areas, which will reduce the risk of DSIs occurring. Without signage the impact of additional cameras is likely to be more general.	0 Sign-posting the current fixed cameras is expected to lead to increased levels of compliance with the posted speed limit and a reduction in excessive travel speeds around these camera sites. This will reduce the risk of DSIs occurring. However, the current cameras are not necessarily located in the highest risk parts of the network. This means this option does not necessarily support a reduction in DSIs on the highest risk parts of the network.	++ More high-risk areas of the network (where the most DSIs occur) will have cameras, and motorists will be given a clear signal to slow down. This is expected to considerably increase levels of compliance with the posted speed limit and reduce excessive travel speeds, which will reduce the risk of DSIs occurring.
<b>Effectiveness – there is a reduction in DSIs due to road users travelling at safer speeds across broader parts of the road network</b>	0	++ As more cameras are rolled out, the more likely there will be more general deterrence effects. This is expected to result in reductions in excessive travel speeds around broader parts of the road network.	- Sign-posting fixed cameras without an accompanied investment in new cameras is unlikely to achieve the desired behaviour change in road users. This is because there is a risk that some road users are more inclined to feel comfortable speeding in all areas without a signed camera.	+ In the longer term, given enough camera saturation and effective public messaging, this approach may improve wider road user behaviour in relation to excessive speed and road safety by having more general network deterrence effects. General deterrence effects across the network will also be achieved through road policing.
<b>Cost and speed of implementation</b>	0	- There will be relatively high investment in initial capital expenditure required to purchase and install cameras.	- There will be costs associated with installing signage. There will also be costs involved with transferring ownership of the camera network to Waka Kotahi.	- - There will be relatively high investment in initial capital expenditure required to purchase and install cameras, including signage. There will also be costs involved with transferring ownership of the camera network to Waka Kotahi.
<b>Ongoing compliance and administrative costs (including criminal justice system impacts)</b>	0	- - As there will be a greater number of cameras in operation across the network, ongoing compliance and administrative costs will increase. NZ Police will continue to manage the network – this approach is expected to be less efficient than Waka Kotahi. This option assumes cameras are turned on all the time (otherwise effectiveness is likely to be lower) which could mean there are more infringements and impacts on the justice pipeline.	+ As fixed cameras will be sign-posted, the number of infringements is expected to reduce. This will reduce costs associated with issuing and processing infringements.  Transferring ownership of cameras to Waka Kotahi is also expected to reduce administrative costs over time, as Waka Kotahi is more suited to be an asset manager than NZ Police.	- As there will be a greater number of cameras in operation across the network, ongoing compliance and administrative costs will increase. However, as fixed cameras will be sign-posted, and potentially only turned-on part of the time, the number of infringements is not expected to significantly increase.  Transferring ownership of cameras to Waka Kotahi is expected to reduce administrative costs over time, as Waka Kotahi is more suited to be an asset manager than NZ Police.

<b>Key stakeholder support and public acceptance</b>	<b>0</b>	<p>- - As cameras will not be sign-posted, many people will still view cameras as enforcement tools designed to catch people out with infringements, rather than a safety-focussed intervention. This is unlikely to support a culture change towards travelling at safer speeds.</p> <p>It will be difficult to continue to expand the camera network under this approach which will limit the potential effectiveness in the long term.</p>	<p>+ On balance, the public is expected to support sign-posting fixed cameras.</p> <p>One of the reasons for transferring ownership of cameras to Waka Kotahi is to incorporate camera placement into the Waka Kotahi and RCAs broader speed management planning process as a speed management tool. If there is no investment in additional cameras, there is a limited case for this.</p>	<p>++ This approach is expected to be viewed positively, as fixed cameras will be clearly sign-posted to give motorists advanced warning.</p> <p>Communications with the public will be focussed on explaining the purpose of the cameras in the context of the broader safety system discouraging unsafe speeds, and why they are located in the highest risk parts of the network. This is expected to support a culture change towards travelling at safer speeds. This option has received strong support from many stakeholders. It also provides a signal to the public that the focus of cameras is on speed management and safety rather than as an enforcement tool.</p> <p>This option is expected to support ongoing expansion of the camera network over time to achieve higher levels of saturation, and broader general deterrence.</p>
<b>Overall assessment</b> (effectiveness criteria are weighted more heavily than key stakeholder support/public acceptance)	<b>0</b>	<b>0</b>	<b>-</b>	<b>+</b>

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## 3.2 Which of these options is the proposed approach?

### Proposed approach

The proposed approach is **Option 3** – including investing in additional cameras, installing cameras on the highest risk parts of the network, clearly sign-posting the locations of fixed cameras in line with best practice, and transferring ownership of the safety camera network to Waka Kotahi.

Option three represents a best-practice mixed approach to safety cameras. This will include a ‘highly visible’ approach where appropriate. It will also maintain a general deterrence ‘anytime anywhere’ component, through different camera types and signage approaches (for example covert mobile safety cameras) as appropriate.

This option is expected to be most effective at achieving a reduction in DSIs on the highest risk parts of the network. The proposed approach is also expected to have positive longer-term impacts through incorporating safety cameras into the speed management planning process and achieving stronger support from the public.

### Level of camera investment associated with implementing proposed approach

The proposed approach should be considered as a package of interventions, where all components must be implemented to achieve the desired outcome. The scale of investment in new cameras needs to be significant enough to allow reasonable coverage of the highest risk locations on the network (where 50 percent of DSIs occur). Likewise, the decision to transfer ownership of the network to Waka Kotahi is most effective alongside a commitment to invest in additional safety cameras.

New cameras would be funded through GPS 2021. A significant investment is expected to be a necessary to meet the Road to Zero target of a reduction in DSIs of 40 percent by 2030. The exact number, optimal mix and location of new safety cameras are operational investment decisions that sit with NZ Police and Waka Kotahi and are subject to further business case development following agreement to the recommended approach. Safety camera investment will be considered alongside broader speed management options such as infrastructure investment, speed limit reductions and road policing activities.

Implementing the proposed approach would form part of a wider approach to speed management where infrastructure upgrades and speed limit reductions will be supported and enforced by an expanded safety camera network and deployment of road policing officers to address unsafe speeds on New Zealand roads.

### General deterrence vs. targeting high risk areas

The current approach to cameras assumes that an unsigned approach to automated enforcement will create a general deterrence effect (that is, changing general driver behaviour around speeding) across the network.

As indicated in the options analysis table above, if very few cameras are rolled out, there is a risk that the proposed approach may not lead to the desired behaviour change in road users as there would not be sufficient network saturation. There is a risk that some road users would be more inclined to feel comfortable travelling at excessive speeds in all areas without a signed camera.

For overt enforcement programs where cameras are clearly signalled, research in Victoria (Australia) indicates that to maximise the general deterrence effect, these programs should

involve low to medium intensity speed enforcement at many sites across the road network.<sup>28</sup> Additionally, as noted previously, more recent research from the Global Road Safety Facility indicates that where fixed cameras are overtly signposted, the maximum deterrence effect is achieved when supported by unsigned mobile cameras.

As outlined in section 2.1, New Zealand has relatively few cameras located on its road network. Under the proposed approach, the highest risk parts of the network would be targeted in the medium term. This approach would be supported by deployment of road policing officers and an engagement campaign to support public buy-in, which could continue to provide some general deterrence effects. This approach would also be supported by broader road safety interventions.

In the longer term, the proposed approach is most likely to lead to broader sections of the road network having a safety camera treatment.

### **Ownership and operation of the network**

The proposed approach is for Waka Kotahi to take over ownership and operation of safety cameras. Waka Kotahi is best placed to manage a growing network of camera assets over the long term. This approach also allows Waka Kotahi to incorporate safety camera proposals into its broader speed management planning, consultation, and delivery processes. Cameras would become one of various speed management tools that can be considered alongside speed limit changes and infrastructure investment.

The broader Road to Zero strategy aims to build social licence for key road safety interventions, as well as change behaviour and attitudes. Safety cameras are a key road safety intervention that support safe speeds and other positive driver behaviour such as following traffic signals. Wider education and communications around safety cameras will be included as part of the social licence programme, contributing to the narrative that safety cameras are key road safety interventions.

Considering current survey data, just over two thirds of New Zealanders agree safety cameras are operated fairly and that cameras help lower the number of people killed on our roads. However, anecdotal conclusions have been drawn around negative perceptions of safety cameras, driven by individual conversations and unbalanced media coverage. We expect that the wider social licence programme of work, as well as the new approach to safety cameras, will reduce the perceived issue of revenue raising perceptions.

Transferring responsibility for safety cameras to Waka Kotahi will allow for better integration with the speed management planning process, and directly links safety camera use with the wider Road to Zero outcomes. The new intelligence-led approach will allow Waka Kotahi to place cameras at the highest risk zones. Clear performance outcomes for reducing DSIs will also contribute to the increased social licence for Waka Kotahi to own, operate, and expand the camera network.

There will be some change management costs associated with the transfer. However, even without a transfer of ownership, a new infringement processing system and additional cameras would impose significant change management costs. The additional costs of transferring the camera network to Waka Kotahi could be minimised if the transfer occurs in conjunction with these IT and camera investments.

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<sup>28</sup> Monash University Accident Research Centre (2003). MUARC's Speed Enforcement Research: Principles Learnt and Implications for Practice.

In the longer term, efficiencies are expected to result from Waka Kotahi asset management expertise (relative to NZ Police) and incorporating cameras into its speed management planning processes.

### Back-office processing system

As a critical enabler of the camera programme, a new infringement processing system is required. In the short term, funding has been requested through the 2019-21 Road Safety Partnership Programme to extend the remaining life of PIPS, and to add some additional functionality. Through this investment, PIPS will be extended to ensure it remains functional while a new system is established.

Waka Kotahi would require the ability to process safety camera infringements before it can manage the camera network. This project has started and a separate business case process to consider options and to cost the new processing system was carried out in 2020. This new processing system will be funded through the National Land Transport Fund.

## Section 4: Impact Analysis (Proposed approach)

### 4.1 Summary table of costs and benefits

Table 5 below provides an indication of the costs and benefits (that is, impacts on DSIs) of scaling up investment in different types of safety cameras and locating them on the highest risk portions of the network. These investment scenarios are indicative only.

**Table 5: Investments in new safety cameras by camera type**

Programme	Number of cameras	Avg Speed Corridors	Length of network treated	DSI saved per annum	BCR (mid-point)	CAPEX	Per Annum OPEX	10 year cost
<b>Red light</b>								
Scenario 1	10			2	3.4	\$1.5m	\$0.4m	\$6m
Scenario 2	50			7	2.4	\$7m	\$2.0m	\$31m
Scenario 3	100			11	2	\$15m	\$4.1m	\$63m
<b>Average speed</b>								
Scenario 1		8	Top 100km	9	2.6	\$11m	\$2m	\$39m
Scenario 2		25	Top 300km	22	2.2	\$32m	\$7m	\$117m
Scenario 3		43	Top 500km	34	2	\$55m	\$12m	\$200m
<b>Fixed speed</b>								
Scenario 1	50		Top 120km	4	1.3	\$11m	\$3m	\$38m
Scenario 2	100		Top 220km	7	1.1	\$22m	\$5m	\$76m
<b>Mobile</b>								
Scenario 1	34		1,155km	12	1.9	\$19m	\$6m	\$79m
Scenario 2	68		1,704km	18	1.5	\$38m	\$12m	\$140m

Estimated costs include the costs of purchasing and installing new cameras, installing new signage and ongoing operating expenses.

As indicated in the table above, increasing investment can continue to produce significant reductions in DSIs. However, targeting the highest risk areas of the network produces the most significant reductions. Increasingly wider areas of the network (at greater expense) will need to be targeted to continue to reduce DSIs once the highest risk areas have a safety camera treatment (hence, lower benefit-cost ratios for higher levels of investment).

While indicative only, the first phase of camera investment could include the roll out of approximately 100 additional cameras, including a range of different types of cameras (for example, point-to-point, mobile, red light, and fixed cameras). In addition to cameras being signed, they may only be switched on part of the time. These changes are expected to limit the impacts on the processing system and justice sector.

Additional costs would include:

- an engagement campaign to support the new approach (expected to cost in the range of \$2 million to \$5 million)
- change management costs associated with the transfer to Waka Kotahi (Waka Kotahi and NZ Police will determine how and when this transfer will occur following formal agreement to the approach to safety cameras).

Additional benefits would include the longer-term impacts of:

- efficiency gains from Waka Kotahi taking over responsibility of the camera network
- changing public attitudes to safety cameras, speed management and excessive speeds.

#### 4.2 What other impacts is this approach likely to have?

The cost-benefit analysis assumes a narrow impact on excessive speeds on the portions of the road network with a camera treatment. In the long term, if there is sufficient camera investment accompanied by effective engagement campaigns and road policing efforts, general deterrence effects may reduce excessive speeds on broader portions of the network than the 'site-specific' effects modelled in the analysis.

## Section 5: Stakeholder views

#### 5.1 What do stakeholders think about the problem and the proposed solution?

There was strong support from members of the Reference Group for the proposed approach to safety cameras being similar to the Swedish model, and the roll out of more cameras in New Zealand. There was also particular interest in red light and point-to-point cameras being introduced, but mixed views about the role of mobile cameras and how they would be signed (which is not proposed in the preferred option).

Te Manatū Waka undertook targeted consultation on the Tackling Unsafe Speeds proposal in March to May 2019. There was wide support for the new approach to safety cameras, including transferring ownership and operation of the camera network to Waka Kotahi. However, some stakeholders thought the new approach to sign-posting cameras would only be successful if sufficient investment was made in new safety cameras and/or there was an increase in penalties for speeding offences.

Public consultation on Road to Zero took place between 17 July and 14 August 2019. The Tackling Unsafe Speeds proposals were discussed at a high-level in the consultation document. Very few submitters commented on safety cameras but those that did tended to support more cameras.

The attitudes of the majority of New Zealanders align with the proposed approach. The results of the Waka Kotahi 2020 *Public Attitudes to Road Safety* survey showed that of respondents:

- 65 percent agreed that using speed cameras helps lower the road toll

- 74 percent agreed that enforcing the speed limit helps lower the road toll
- 83 percent thought that speed limits on the roads they normally use are about right for the road and traffic conditions
- 88 percent agreed that higher speeds increase the chance of having a crash
- 97 percent agreed that higher speeds increase the chance of serious injury in a crash
- only a minority, 31 percent, agreed that if care is taken while speeding, there is not much chance of an accident.

Many stakeholders also raised the concern that demerit points are not attached to safety camera offences in New Zealand, while they often are overseas. As noted previously, this is a consideration as part of Te Manatū Waka's current review of road safety penalties.

## Section 6: Implementation and operation

### 6.1 How will the new arrangements be given effect?

#### Legislative changes

The proposed approach to safety cameras would require only limited regulatory change. Changes to ownership and operation of the network will require minor primary legislation change to permit Waka Kotahi to issue infringement notices and to allow Waka Kotahi to approve new 'vehicle surveillance equipment'. New signage requirements could be set out through a land transport rule change.

#### Transitional arrangements (refer Figure 2 below)

A public engagement campaign is expected to be rolled out as the new cameras are installed on the network. This would inform the public about the new approach to cameras and their purpose.

Signs providing a clear indication of camera locations could be installed for existing fixed cameras as the engagement campaign and new cameras (including more covert mobile cameras) are rolled out.

Waka Kotahi would take an incremental, risk-based approach to investment in new safety cameras. Following initial investment as part of GPS 2021, the decision about investment in future tranches of cameras would depend on the success of the first phase and the relative effectiveness of other road safety interventions at the time of investment.

The timeline in Figure 2 below provides an indication of how the approach to safety cameras would be rolled out. Many of these decisions would be operational decisions for Waka Kotahi and NZ Police and subject to further planning and analysis.

In the shorter term, PIPS will be extended to remove the immediate end of life constraints on the system. Work also begun in 2020 on further enhancements to PIPS and upgrades to the existing mobile cameras. These are operational requirements that are being carried out regardless of decisions about the approach to the safety camera network.

Implementation of a new processing system is likely to take two and a half to four years and will be a prerequisite for processing information from point-to-point cameras and any considerable increase in infringements. Further work is required to plan for and manage



the transfer of cameras and associated services to Waka Kotahi. More detailed planning will follow Cabinet agreement to the new approach to the camera network.

### **Communications**

A national communications campaign will be required to support the implementation of the new approach to safety cameras.

### **Funding**

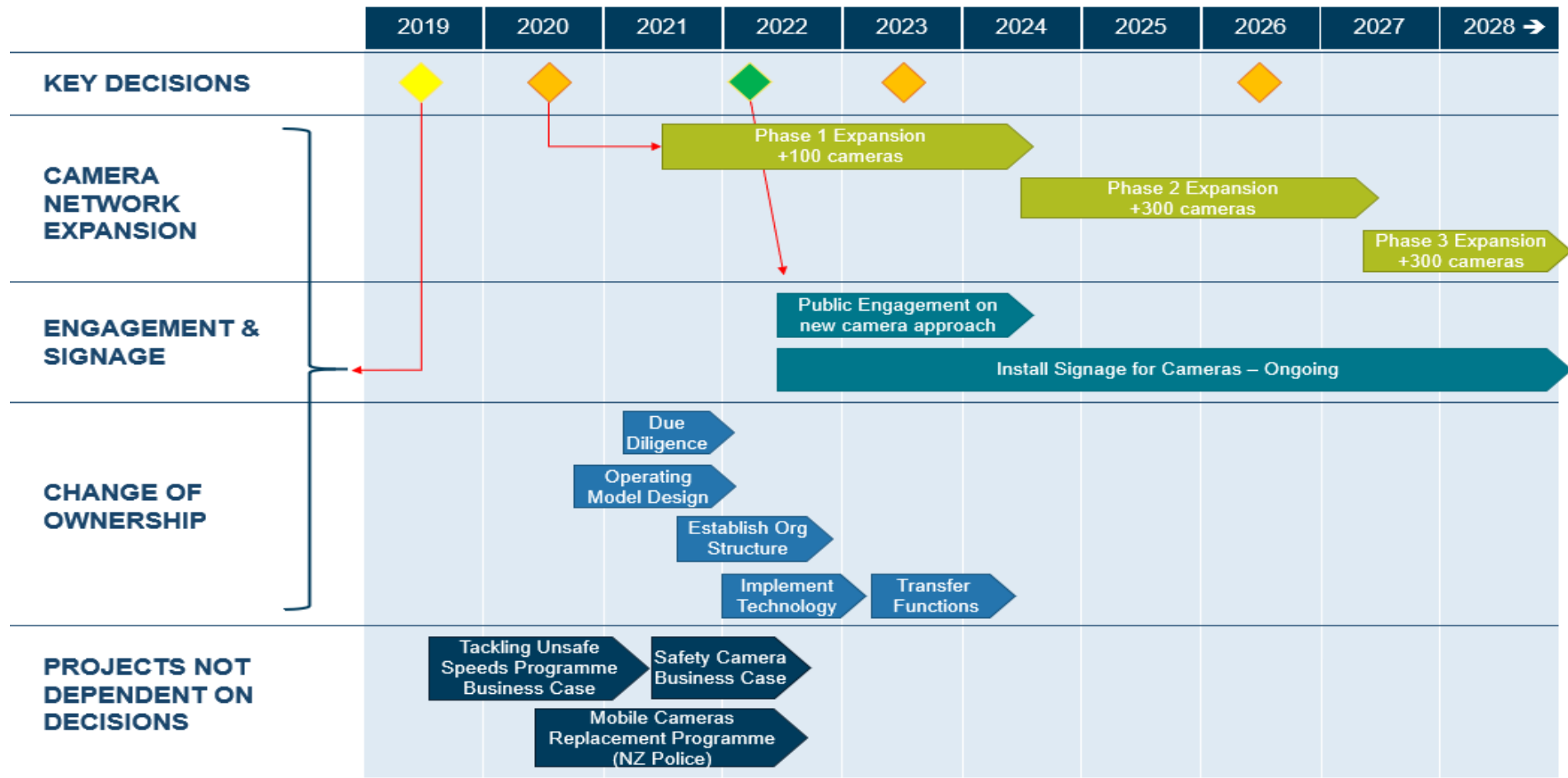
Funding for the proposals in this paper have been identified at a high level through analysis to support the Road to Zero target and will largely be funded through the National Land Transport Fund (aside from future possible budget bids). This includes funding identified for a substantial increase in the safety camera network (including an IT platform and engagement campaign). Initial funding for the camera processing system has been costed into the current GPS 2021 period.

### **Implementation risks**

The implementation of the new approach to safety cameras, particularly if there is a significant increase in the number and type of cameras, may take some time. There is no precedent for extending the camera network to this extent and automating the infringement process. The transfer to Waka Kotahi would help mitigate this risk, as Waka Kotahi is experienced at managing large-scale investment projects.

There may also be privacy implications to work through depending on the types of cameras invested in and how they operate. Waka Kotahi and NZ Police would consult the Office of the Privacy Commissioner as necessary.

**Figure 2: Safety Camera System Indicative Timeline**



◆ Cabinet decision confirmed    
 ◆ Cabinet decision TBC (highly visible and covert mixed signage approach)    
 ◆ GPS priorities confirmed    
 → Dependency



# Section 7: Monitoring, evaluation, and review

## 7.1 How will the impact of the new arrangements be monitored?

The safety impacts of the proposed Tackling Unsafe Speeds programme will be monitored as part of the implementation of Road to Zero. All action plan items are intended to support reductions in the number of DSIs.

As part of Road to Zero, the key indicators for this proposal that will be monitored include:

- Mobile camera deployment activity.
- Percentage of traffic travelling within speed limits.
- Number of DSIs with speed being a contributing factor.
- Percentage of the public who understand the risk associated with driving speed.
- Percentage of the public who agree they are likely to get caught when driving over the posted speed limit.
- Percentage of the road network covered by automated<sup>29</sup> safety cameras.
- Percentage of the public who agree that safety cameras are an important intervention to reduce the number of road deaths.

## 7.2 When and how will the new arrangements be reviewed?

Waka Kotahi and NZ Police will continue to monitor high risk parts of the network to determine the most appropriate locations for fixed safety cameras and approach to mobile cameras. They would also monitor enforcement, effectiveness of approaches, and travel speeds. This information would inform future safety camera investments. Waka Kotahi will review the safety camera network through each round of its State highway SMP process and incorporate decisions about safety camera placement into its general speed management planning. Camera locations could be adjusted as necessary (particularly mobile camera sites) as changes to safety camera placement will not require regulatory change.

<sup>29</sup> Cameras which automatically record a vehicle’s speed using radar or other instrumentation and take a photograph of vehicles exceeding a threshold limit.

# Appendix 1: Child Impact Assessment screening sheet

## 1. What is the proposal?

The Tackling Unsafe Speeds programme aims to support road safety and transport outcomes including reducing deaths and serious injuries on New Zealand roads and creating more liveable cities and thriving communities.

Te Manatū Waka work reviewing road safety and engagement with the transport sector and public, have highlighted priority areas for change regarding speed management. These include these proposals to reduce speed limits around schools.

Tackling Unsafe Speeds includes proposals to reduce speeds around schools by categorising schools into one of two categories, according to their road-related risk factors:

- Category one - require 30 km/h speed limits (variable or permanent) as a default. Schools with 40 km/h speed limits prior to consultation on the draft Rule could also retain these under this category but need review once after three years.
- Category two – provide for up to 60 km/h speed limits, with an explanation in SMPs required of why the higher speed is appropriate and review once after three years.

Schools have a high concentration of children in cars and using a variety of active modes of transport. Therefore, we expect these proposals to have clear positive impacts on the wellbeing of children and young people.

## 2. What are the impacts on children and young people of this proposal?

Children and young people are particularly vulnerable to high travel speeds as they are limited by their physical, cognitive, and social development compared to adults. Many are not equipped to understand and manage the associated risks and younger children are also more physically vulnerable. The proposals to introduce safer speed limits around schools are focused on ensuring the roading environment around schools is safer for children and young people.

More generally, we expect the proposals to also improve community liveability by improving perceptions of safety and increasing the willingness of parents and children to make greater use of active modes of transport. Lower speeds will reduce the rate and severity of injuries if children and young people are involved in motor vehicle accidents as passengers, drivers, or active mode users.

While the other aspects of the Tackling Unsafe Speeds programme are not likely to directly impact children or young people significantly, they will support the outcomes of safer speed limits around schools.

The proposed regulatory framework for speed management is intended to streamline the speed limit setting process. Assuming there is agreement to the new regulatory framework, all speed limit changes around schools would be planned for and prioritised through SMPs over the 10-year life of Road to Zero.

### **3. What are the likely impacts on Māori children of this proposal?**

This proposal may have positive impacts for Māori children given that Māori children are more likely to be killed or seriously injured in crashes than non-Māori children. A Child and Youth Mortality Review of mortality data from 2002 to 2017 found that Māori children have fatality rates almost twice as high as non-Māori children for car and pick-up truck/van occupancy, and pedestrian fatality rates approximately double those of non-Māori children<sup>30</sup>.

Regarding fostering active modes of transport, we do not consider there are likely to be significant impacts on Māori children and young people from the proposals, distinct from non-Māori children and young people.

Results from the 2019/20 New Zealand Health Survey (Ministry of Health) show that 40 percent of Māori children (aged 5-14) usually use active modes of transport (walk, bike, skate or similar) to travel to and from kura/school. This is similar to the proportion of children of all ethnicities using active modes of transport to travel to and from kura/school (42 percent).

The biggest variation in the effectiveness of lower speed limits encouraging active mode use is expected to be across kura/schools (depending on how they are implemented and how suitable the broader school surroundings are for active mode transport). We expect proportion of Māori children using active modes of transport to travel to and from kura/school to shift at similar rates to the total school population.

### **4. Have children and young people had a say and their voice heard in this proposal?**

In the 2020 public attitudes to road safety survey conducted by Waka Kotahi, respondents were asked what they thought the speed limit around schools in urban areas should be. Sixty eight percent thought the speed limit around urban schools should be 30 km/h or less. A further 26 percent gave answers between 31 and 40 km/h. The public consistently provided similar answers over a ten-year period (2011-2020), with greater than 90 percent of respondents in favour of speed limits no greater than 40 km/h around schools.

Of the 1,699 2020 survey respondents, six percent were between the ages of 16-19 years. We are confident that most young people in this group would support lower speed limits around schools (that is, consistent with the views of the wider population).

### **5. Do the impacts identified require further analysis?**

We do not consider a full Child Impact Assessment needs to be completed for this proposal.

<sup>30</sup> Child and Youth Mortality Review Committee [CYMRC] (2019). 14th Data Report: 2013-17. Wellington: Health Quality & Safety Commission.