Impact Summary: Tackling Unsafe Speeds

Section 1: General information

Purpose
The 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 has been produced for the purpose of informing key (or in-principle) policy decisions to be taken by Cabinet.

Key Limitations or Constraints on Analysis

Unquantifiable aspects of the analysis

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 quantified.

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.

Indicative costs and benefits

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 the NZ Transport Agency funded from the National Land Transport Fund. The analysis included in this section 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.

Responsible Manager (signature and date):

Brent Johnston
Manager, Mobility and Safety
Ministry of Transport
Signature:

Date:

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.

The Ministry's work reviewing the current system and consultation have highlighted priority areas for change in relation to 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).

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. The Ministry, NZTA, NZ Police and RCAs are also working on broader road safety improvements (e.g. safety improvements to the vehicle fleet, improved enforcement, infrastructure investment, improving safety and accessibility for vulnerable users of the land transport system etc.). 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. Minister 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. The Ministry of Transport 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 the *Road to Zero* strategy consultation.

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 Associate Minister of Transport to report back in October 2019 seeking approval to the *Tackling Unsafe Speeds* Programme. [DEV-19-MIN-0175].

As part of this regulatory impact assessment, a Ministry of Social Development Child Impact Assessment Screening Sheet was completed determine whether the proposed programme will improve the wellbeing of children and young people.[1] This is attached as **Appendix 1**.

[1] 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.

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

The *Tackling Unsafe Speeds* programme is one of fourteen actions proposed as part of the initial action plan under the new *Road to Zero* strategy. The *Tackling Unsafe Speeds* proposals were consulted on as part of the *Road to Zero* consultation from July-August 2019.

The *Road to Zero* strategy and action plan take account of 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.

The draft Road to Zero Strategy sets a target reduction in deaths and serious injuries (DSIs) of 40 percent by 2030. 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 reductions in DSIs on our roads (i.e. up to half of the 40 percent target).

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

In 2016, travelling too fast for the conditions was the second highest contributing factor to causes of fatal and serious injury crashes. 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. 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 the severity[2]. 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 also been a dominant focus in other jurisdictions that have made significant and sustained road safety gains.

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. Thisobjective is supported by the package of changes identified in this paper.

[2] International Transport Forum's 2018 report on speed and crash risk.

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?

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 and some RCAs deferring speed management changes, as they view it 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.

Speed management aims to best balance efficient travelling with a safer experience on our roads. It involves matching the speed limit to the design, use, form and function of the road, and the risk posed to the road user. Sometimes this 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.

Speed management has also been a dominant focus in other jurisdictions that have made significant road safety gains in recent years.

The NZ Transport Agency and local authorities are responsible for reviewing and setting speed limits in their capacity as road controlling authorities

The NZ Transport Agency is the road controlling authority (RCA) for State highways, and local 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 (and maintain a register of these bylaws).

NZTA is also responsible for:

- recommending safe and appropriate speeds across the network
- the development of the Speed Management Guide (more detail on the Speed Management Guide is outlined below)
- approving some speed limit changes proposed by RCAs.

There are also other RCAs responsible for some components of the network, such as the Department of Conservation, supermarkets, airports and other government departments in designated locations.

Under the 2017 rule, RCAs must take into account information and guidance provided by the NZTA 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.

The NZTA has begun to work closely with RCAs on speed management on a regional basis within the context of the current regulatory framework. The NZTA is currently working with

the Auckland, Waikato and Canterbury regions 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 has resulted in some councils thinking speed management is too hard to make changes.

This has led to:

- speed limits that do not reflect the nature of the road
- speed limit changes that are not always supported by appropriate infrastructure investments
- 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 the NZ Transport Agency) having limited resources and capability to implement speed management changes
- at times 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, similar parts of the road network.
- inconsistent use of the Speed Management Guide, and other evidence such as actual travel speed data, to aid speed management decision making (for example, if a speed limit reduction significantly below current travel speeds is considered safe and appropriate, it may be most effectively achieved by staggered speed limit reductions over time rather than a one-off reduction)
- concerns about the transparency and reliability of MegaMaps (the NZ Transport Agency's risk assessment tool that estimates safe and appropriate speeds)

- a lack of clarity around the NZ Transport Agency roles as both regulator and RCA.

Engagement with RCAs and the Road Safety Strategy Speed Reference Group[3] and feedback from the Local Government Road Safety Summit in April 2018 has highlighted these problems with the current process. Further comments from stakeholders are outlined in **Chapter 1: Section 5.**

Government regulation is expected to be required to address these problems, because to implement a new regulatory framework for speed management, legislative changes would need to occur.

2.2 Who is affected and how?

The problems with the current regulatory environment primarily 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.

This has flow on effects for the general public. If RCAs are avoiding implementing safer speed limits, then safety outcomes for the public are worse than they otherwise would be.

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 the Ministry of Transport to progress work on improvements to the regulatory framework for speed management. In December 2018, the Associate Minister of Transport agreed to the high-level scope of the regulatory framework proposal [OC181050 refers]. On 1 July 2019, Cabinet was provided with a high-level summary of the *Tackling Unsafe Speeds* proposals and invited report back in October 2019 seeking approval to the *Tackling Unsafe Speeds* Programme [DEV-19-MIN-0175]

The *Tackling Unsafe Speeds* package also includes a proposal to introduce lower speed limits around schools. The speed limits around schools proposal is explored further in Chapter 2, but for the purposes of this Chapter it is considered a constraint on the scope (i.e. options considered in Chapter 1 should support the introduction of lower speed limits around schools).

The *Tackling Unsafe Speeds* programme is part of a broader set of road safety changes that are being considered as the Ministry develops its *Road to Zero* strategy and action plan. The intention is to announce these pieces of work together. The *Road to Zero* strategy and action plan will be finalised by November 2019, which constrains the time required to have Cabinet decisions about the policy proposals for the *Tackling Unsafe Speeds* programme.

[3] As part of the development of the *Road to Zero* Strategy, 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 of over 100 representatives from central government, local government, advocacy groups and special interest groups.

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 who choose to use the regulatory process, formal introduction of a new speed limit would be through NZTA 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 NZTA approval and publishing on a national Register (rather than making speed limit bylaws).
- No further formal requirements for RCA planning and implementation processes for setting speed limits (i.e. 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 substantially amended Setting of Speed Limits rule.
- The NZTA would be required to develop a public National Speed Management Plan and work collaboratively with territorial authority RCAs and Regional Transport Committees to develop Regional Speed Management Plans.
- 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 align with the land transport planning process.
- Formal introduction of a new speed limit would be through NZTA approval and publishing 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. These 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, 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 – 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 in the eyes of 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
The New Zealand Transport Agency (NZTA), road controlling authorities (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 using 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 and legislation to remove bylaw-making process and establish new process. RCAs must become familiar with new process requirements.	- - Rule and primary legislation changes to remove bylaw-making process and establish new planning processes. Some disruption and complexity for RCAs in transitioning to the speed management planning 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, NZTA and regional transport committees. However, 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 within a region and across the country, while retaining local decision making.

This proposal would formally bring together land transport investment decisions and speed management decisions.

Speed management plans would be a ten year plans, developed every six years, with allowance for variation every three years. All speed management plans would include proposals on engineering upgrades and other safety infrastructure treatments, alongside proposed speed limit changes. The timing of speed management plans would be aligned with the land transport planning process.

Speed management plans would be formally consulted on, reviewed and published. RCAs would be required to implement speed limit changes as set out in published plans. The NZ Transport Agency would work collaboratively with other RCAs and regional transport committees 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 replaces the bylaw-making process and RCAs will no longer be able to set speed limits through a bylaw. This proposal would also clarify the roles of the NZ Transport Agency as a regulator and RCA.

Stakeholders largely indicated support for the general direction of change outlined in this proposal. A number of elements within the proposed framework have 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
Infrastructure and speed limits	Infrastructure planning and investment decisions and speed limit reviews tend to be carried out separately.	The speed management planning process will be aligned with the land transport planning process. This will formally bring together infrastructure investment decisions and speed management planning.
Network coordination	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 State highway network are not always well coordinated.	The planning process will support a whole-of-network approach by supporting regional collaboration and consistency, ensuring each region has a plan and that those plans coordinate with bordering regional plans and changes to the State highway network.

	Current regulatory framework	Proposed regulatory framework
Consultation	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/Regional Transport Committees will be required to consult on speed management plans, which 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 speed management plan is finalised, RCAs will implement those changes in accordance with the plans.
Transparency and accountability	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.	Speed management plans 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 speed management plan.
Clarity of roles	The NZ Transport Agency 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 regional transport committees.	The NZ Transport Agency's roles as RCA and regulator are clearly defined. As regulator the Agency reviews the speed management plans of other RCAs. An independent committee will be established to review the National Speed Management Plan (the Agency's RCA role). RCAs are responsible for contributing to and implementing Speed Management Plans. Regional transport committees have a formal regional coordination role.
Bringing a speed limit into legal effect	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 speed management plans and must be lodged with the Registrar for inclusion in a publicly available register. This will provide certainty of legality of posted speed limits for enforcement purposes and 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

Affected parties *(identify)*	**Comment**: nature of cost or benefit (eg ongoing, one-off), evidence and assumption (eg compliance rates), risks	**Impact** *$m present value, for monetised impacts; high, medium or low for non-monetised impacts*
Additional costs of proposed approach, compared to taking no action		
Regulated parties – motorists	In some regions, more roads will more quickly have safe and appropriate speed limits in place (in some cases lower than current speed limits) – therefore, perhaps some increase in travel times for motorists.	Low
Regulators	RCAs (including NZTA as RCA) – temporary **additional resourcing** required to prepare initial Speed Management Plans and establish new processes	Medium (one-off)
	NZTA – new regulatory requirements, including development of the Register of Road Instruments, Registrar functions, review of Regional Speed Management Plans	Medium
Wider government	**Implementation costs** – legislative and Rule changes will be required.	Low
Other parties		
Total Monetised Cost		
Non-monetised costs		Low
Expected benefits of proposed approach, compared to taking no action		
Regulated parties – motorists	In some regions, more roads will more quickly have safe and appropriate speed limits in place – therefore, improved safety outcomes for motorists.	Medium
	Transparency – road users and general public will have access to and visibility of Speed Management Plans (alongside land transport plans), the MegaMaps tool and the Register of Road Instruments.	Low
Regulators	**Clarity** – establishes a clear process for setting speed limits and removes existing confusion.	Low
	Reduced ongoing compliance costs – process and consultation requirements	Medium

	for speed limit changes are coordinated and streamlined (less work on a per speed limit change basis and more straightforward to make a number of changes across the region).	
Wider government	**Enforcement** – the new process and single register provides certainty of legally enforceable speed limits	Low (but limits risk of low probability, highly negative events)
Other parties	**Consistency** and **safety**– all parties are expected to benefit from a consistent, whole-of-network approach being taken to speed management, improving road safety outcomes (i.e. not just motorists).	Medium
Total Monetised Benefit		N/A
Non-monetised benefits		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 clear communication that there is an expectation that RCAs should continue to prioritise setting speed limits on the top 10 percent highest risk roads to align with the recommended safe and appropriate speed. The proposed approach is intended to enable and formalise the existing work the NZTA is carrying out to coordinate speed management at a regional level.

Section 5: Stakeholder views

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

A key part of the development of these proposals included hearing about and testing potential options for change on speed management with the Speed 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 contributed to these workshops and the ideas from those workshops have been further developed and tested to inform the proposals in this paper.

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, and potential interventions that would effectively address these challenges.

The Ministry of Transport also engaged with a range of RCAs and stakeholders regarding the current process required to change speed limits. This engagement continued through a variety of forums in 2019. Feedback from RCAs and stakeholders is that there are numerous problems with the current 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.

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 implementation of speed management changes, both undertaking speed limit reviews, as well as making engineering and other physical changes to the road
- encouraged an evidence-based approach that supports 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, but generally people believed this would not be a sufficient change on its own and would not drive accountability for speed management.

Further targeted consultation on draft policy options was carried out 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 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 Speed Management Committee and NZTA.
- Safe and appropriate speeds recommended by MegaMaps do not always appear to be reliable so there would 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.
- There needs to be a mechanism for allowing for speed limit changes outside of the planning cycle.

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.

On balance, comments broadly in support of the *Tackling Unsafe Speeds* proposals outweighed those broadly opposed, although there were a number of strong views on both sides. Submissions from organisations tended to be more heavily weighted towards support for the proposals. Most submitters were more concerned about speed limit changes, rather than the process for planning and implementing them.

Comments from those in support tended to focus on 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).

There were a large number of submitters who expressed mixed views on speed. These included, for example, in principle support for speed limit reductions in some areas, but concerns about implementation or effectiveness or the need to focus on other safety interventions before relying on speed limit reductions.

Section 6: Implementation and operation

6.1 How will the new arrangements be given effect?

The proposed approach would require minor changes to primary legislation and substantial changes to the 2017 rule. This process is expected to take 12 months. There would then be a transition period before the first Speed Management Plans were required to be finalised.

This timeline would mean the first Speed Management Plans would be in development alongside the 2021 Regional Land Transport Plans. However, draft speed management plans would not be expected to be developed until the end of 2021. The first round of plans could be finalised by the end of 2022 following investment decisions through the land transport planning process.

Legislative changes

The details of the new speed management framework, including the functions, powers and duties of the NZ Transport Agency, RCAs, regional transport committees, and the Committee will be set out in a new Land Transport Rule made by the Minister, which will replace the 2017 rule.

The new system will require relatively minor amendments to 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, and to the Land Transport Management Act 2003 to add functions to the regional transport committees.

These changes are expected to come into effect by the end of 2020. Amendments to the 2017 rule (as well as the Speed Management Guide) would be developed alongside these changes.

Transitional arrangements

Preparation of the first round of Speed Management Plans is expected to take some time; RCAs will be provided with sufficient lead in time to allow speed management plans to be drafted, consulted on and finalised. Further detailed implementation planning will

determine the timing of the first planning round, but draft plans are expected by the end of 2021.

In order to support the proposed changes to the regulatory framework, a review of the NZTA's MegaMaps tool is recommended. This would provide greater assurance to RCAs and the public that safe and appropriate speeds recommendations are robust and reliable.

As part of the proposed new regulatory framework, a register for speed limits would be 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.

Further detailed implementation planning is still to be carried out. This process would aim to identify any further implementation risks and manage these risks through the transitional arrangements and communications to RCAs and the public.

Operation

Operational responsibility for the proposed changes would largely sit with NZTA, RCAs and Regional Transport Committees as the parties responsible for developing speed management plans and therefore planning for, consulting on and implementing speed limit changes.

Funding

Funding for the proposals outlined in this section have been identified through analysis to support the *Road to Zero* strategy and are largely expected to be funded through the National Land Transport Fund. 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).

These items have been identified at a high level as part of the *Road to Zero* 40 percent targeted reduction in DSIs and will be prioritised through GPS 2021.

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 *the Road to Zero* Strategy, due to be released in late 2019. All action plan items are intended to support reductions in the number of DSIs.

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

- Percent of the highest risk roads addressed through speed management.
- Number of DSI crashes with speed being a contributing factor.
- Number of DSI crashes where the speed limit does not align with the Safe System.

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

- Requiring the NZTA to work collaboratively with all regions to support the development of Regional Speed Management Plans. The NZTA must review these plans.
- Establishing a Speed Management Committee to review the National Speed Management Plans.

7.2 When and how will the new arrangements be reviewed?

The NZTA, RCAs and Regional Transport Committees would have responsibility for developing, consulting on and implementing speed management plans which will provide direct insight into the issues with the process. Notable variations from the expected impacts, especially any negative impacts, will be monitored and addressed through ongoing collaboration with the NZTA and other RCAs.

The NZTA in its role as regulator would be responsible for reviewing Regional Speed Management Plans. The Speed Management Committee would be responsible for reviewing the NZTA's National Speed Management Plan. These reviews would ensure due process is followed.

CHAPTER 2: Transitioning to lower 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 concerns and discourages some children from using active modes of transport to get to and from school.

The proposed approach in Chapter 1 is expected to streamline the process for RCAs to implement lower speed limits around schools considered in this chapter. 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 limit, so some roads around schools have speed limits that differ from the above default limits.

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

- 40 km/h permanent or variable[4] speed limits outside urban schools[5]
- 60 km/h variable speed limits where there is an identified turning traffic risk. This generally applies outside rural schools[6], 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, 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, the majority of speed limits around schools will continue to be default speed limits, or speed limits that do not align with recommendations in the Speed Management Guide and Safer Journeys for Schools Guide.**Deaths and serious injuries 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. While Table 2 shows there are not a large number of road-safety-related incidents around schools (compared to other parts of the road network), the roading environment around schools can often be complex and varies from school to school. Many children are not equipped to understand and manage the associated risks.

[4] Variable speed limits are suitable for higher classification (i.e. arterial-type) roads, whereas permanent area-wide speed limits are appropriate for roads around schools on residential access roads.

[5] A school that has an access or frontage which is located in an urban traffic area.

[6] A school that has an access or frontage which is not located in an urban traffic area.

Table 2: Number of crashes within 250 m of a school which involved school aged children

Year	Crashes* within 250 m of a school which involved school aged children (5-17 years)**		
	Fatal crashes	Serious injury crashes	Minor injury crashes
2008	2	27	168
2009	0	33	163
2010	0	18	180
2011	1	20	149
2012	1	20	138
2013	2	19	107
2014	0	17	103
2015	0	22	122
2016	1	24	106
2017	1	23	129

* Limited to crashes occurring between 6:30-9am and 2-4:30pm on weekdays (and excludes January due to school holidays).
** Includes roads that the school has no frontage on to. Crashes are where at least one school aged child (5-17 years) was involved in a fatal, serious or minor injury crash, regardless of whether it was the child who died or was injured.

Why does the current situation constitute a problem?

Current default speed limits around schools are often not the recommended safe and appropriate speed limits. Though there are not many road safety-related incidents around schools (compared to other areas of the network), there are at least 120 crashes each year involving school-aged children outside schools (refer Table 2).

Over the last few decades there has been a decline in the number 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.[7] 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.[8]

Historically, speed management decisions have primarily focussed on the trade off between reducing crashes and 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. For example, how speed management can support better access and support healthier walking and cycling transport options. For these reasons, 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 obesity and reduced risk of a range of diseases), improved mental health and even their concentration and ability to learn at school.[9] 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[10]. 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 (i.e. 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)[11].

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 mode users interacting with motorised traffic can have significant safety benefits. In addition, the International Transport Forum found that pedestrians, cyclists and motorcyclists account for nearly 80 percent of urban traffic fatalities[12].

Overall, the research notes that 30 km/h is generally considered appropriate in built up areas where active road users and motor vehicle traffic share the same space. This is reinforced in the International Transport Forum's (ITF) 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 Calgary and Saskatoon (both Canada), 30 km/h variable speed limits are in effect at specific times of the day when children are expected to be present. In most Australian states, 40 km/h variable speed limits are applied 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 USA, permanent 20 mph (32 km/h) speed limits have been implemented around schools.

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. 50 km/h speed limits are

7 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.

8 Safe speed: Promoting safe walking and cycling by reducing traffic speed, Dr Jan Gerrard for the Safe Speed Interest Group, The Heart Foundation, 2008.

9 https://sciencenordic.com/children-and-adolescents-denmark-exercise/children-who-walk-to-school-concentrate-better/1379550

10 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.

11 In reality, 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.

12 Safer City Streets: Global Benchmarking for Urban Safety. This is based on international data and numbers are likely to differ for some urban areas in New Zealand. .

most commonly 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?

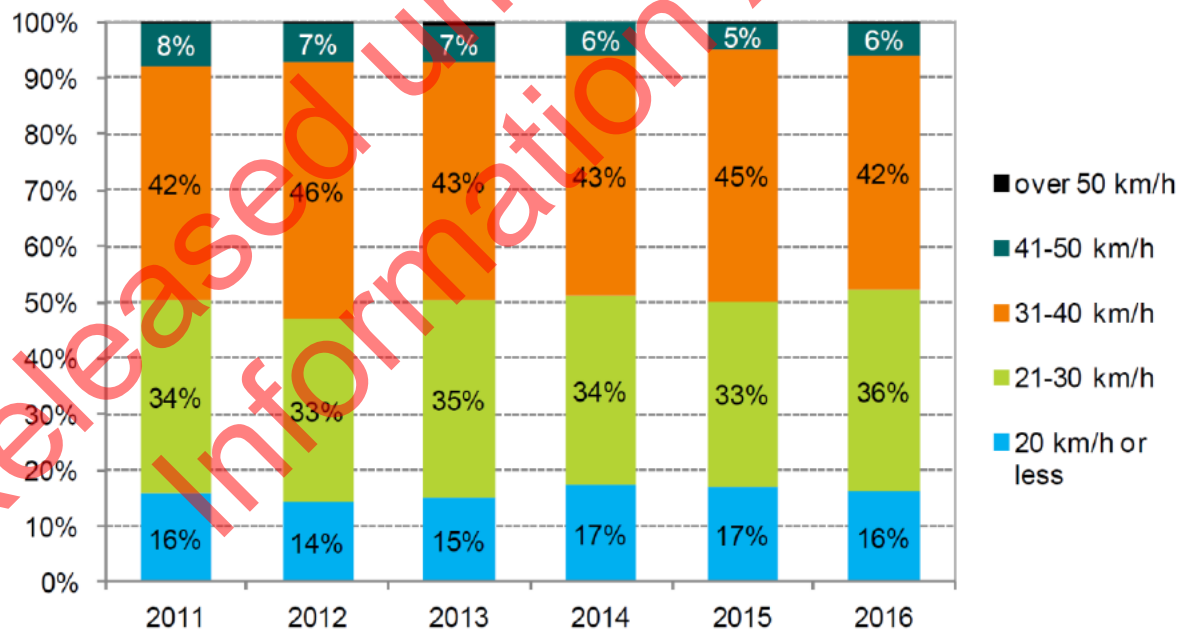
School children and their families are primarily affected by the current speed limit settings around schools. Speeds limits that are not safe or appropriate result in crashes that could have been less severe or avoided and discourage active modes of transport.

We are seeking 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, these areas would become safer, more attractive and more accessible for children to walk and cycle.

Urban schools

There has been demand for 30 km/h speed limits around urban schools (variable and permanent) from a number of councils and communities, including the Hamilton City Council, Napier City Council and Dunedin City Council, who are current actively pursuing lower speed limits around schools. The Ministry of Transport's *Public Attitudes to Road Safety* survey indicates that each year from 2011 to 2016 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)



A range of other stakeholders also endorse lower speed limits around schools (refer Figure 1 below), including the Road Safety Strategy Speed Reference Group.

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 Speed Reference Group and other groups that have been consulted are supportive of 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 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 that would require a significant reduction in permanent speeds would likely be unsuitable around some schools at some 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 have been considered in this options analysis. This Government has indicated support for introducing safer speed limits around schools and previous Cabinet decisions have agreed to this approach [DEV-18-MIN-0025 and DEV-19-MIN-0175 refers]. Lower speed limits could also be supported by other programmes to encourage active 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 can lower actual travel speeds, making these areas safer, more attractive and more accessible for children to walk and cycle.

The options in this section focus on transitioning to lower speed limits around urban and rural schools. Each option will be assessed against the status quo.

Urban schools

The options identified below are focused 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.

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

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 focus 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).

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 (i.e. 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
NZTA, 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'). This type of approach is not considered viable.

There are a range of environments surrounding schools and a mixture of roads serving different purposes. For some roads in close proximity to a school, 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 – lower 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)
Effectiveness - motorists travel at safe and appropriate speeds	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 outside around 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. However, in some cases 30 km/h may not be an 'appropriate' speed limit and could lead to some RCAs introducing minimal speed management treatments around some schools.	++ 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.
Effectiveness – improve access and mode shift	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 may 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.
Cost and speed of implementation	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 expensive infrastructure treatments would 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 (eg, 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 (eg, 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.
Ongoing compliance and administrative costs	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 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, 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 would be some 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.
Key stakeholder support and public acceptance	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. A number of 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.
Overall assessment	0	+	+	++	++

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

Options analysis – lower 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 (i.e. maximum speed limits of 40 km/h).
Effectiveness - motorists travel at safe and appropriate speeds	**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.
Effectiveness – improve access and mode shift	**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.
Cost and speed of implementation	**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 speed management plans.	**- -** 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 speed management plans.
Ongoing compliance and administrative costs	**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.
Key stakeholder support and public acceptance	**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.
Overall assessment (effectiveness criteria are weighted more heavily than key stakeholder support/public acceptance)	**0**	**+**	**-**

3.2 Which of these options is the proposed approach?

For urban schools, the proposed approach is **Option 1d** – reducing speed limits around urban schools to 30 km/h (variable or permanent speed limits), with the option of implementing 40 km/h speed limits if appropriate.

Option 1d 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, Option 1d is preferred as it sends a stronger signal to RCAs to reduce speed limits to 30 km/h around urban schools. 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 urban schools, and that some schools already have 40 km/h speed limits on roads around them.

For rural schools, the proposed approach is **option 2a** – reducing speed limits around rural schools to a maximum of 60 km/h (variable or permanent speed limits).

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

The details of transitioning to safer speed limits around schools will be further developed and consulted on as part of a change to the Setting of Speed Limits Rule.

Urban schools

Safer speed limits (variable or permanent) will be required on the roads where the school has a main entrance or exit. RCAs will also be encouraged to implement safer speed limits in the wider vicinity of a school. 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 modes of travel, speed limits across this wider area need to be considered.

Requiring RCAs to reduce speed limits to 30 km/h around urban 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[13] on some roads around schools, particularly urban arterial roads. In these cases, variable speed limits are likely to be more appropriate.

In rare situations where urban schools 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. 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.

[13] Changes to the road or road environment designed to encourage safer travel speeds (e.g. raised platforms or chicanes).

Rural schools

Introducing a maximum of 60 km/h speed limits around all rural schools best balances the safety benefits and the flexibility for RCAs to adopt the most appropriate speed limit for the environment.

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 rural 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, NZTA is the responsible RCA. NZTA 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 rural schools to 30 km/h or 40 km/h was considered, but is not recommended. While there was some support for this approach, a number of stakeholders identified strong concerns with a speed limit of 30 km/h being required around all rural schools. This could lead to poor levels of compliance and motorists travelling at a variety of speeds, which can cause safety issues.

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 *(identify)*	**Comment**: nature of cost or benefit (eg ongoing, one-off), evidence and assumption (eg compliance rates), risks	**Impact** *$m present value, for monetised impacts; high, medium or low for non-monetised impacts*
Additional costs of proposed approach, compared to taking no action		
Regulated parties	Increases in travel times for motorists.	Expected to be minor. Often variable speed limits only at school start and finish times
Regulators	In many cases, RCAs (including the NZTA) will be required to install new signage near schools. These will be one-off costs and often variable signs. In some cases, infrastructure changes will also be appropriate to support speed limit reductions. RCAs will be able to	[redacted]

Withheld under section 9(2)(f)(iv)

	determine the most appropriate intervention around each school. 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.	[redacted]
	National publicity and education campaign (NZTA)	$3 - $5 million
Wider government		
Other parties		
Total Monetised Cost		
Non-monetised costs		

Expected benefits of proposed approach, compared to taking no action		
Regulated parties	Decreased number of injurious crashes for road users around schools (including cyclists and pedestrians).	Medium - although crashes around schools are limited there is still expected to be a safety benefit
Regulators		
Wider government		
Other parties	More children walking and cycling to and from school (and associated physical and mental health benefits and less car use)	Medium – speed limits (and accompanying infrastructure) will be an important factor in this decision for children and parents
	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
Total Monetised Benefit		
Non-monetised benefits		Medium

Section 5: Stakeholder views

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

The Ministry of Transport and the Associate Minister of Transport (Hon Julie Anne Genter) 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 in order 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.

The Ministry of Transport discussed the high-level policy proposals outlined in this Regulatory Impact Analysis in detail with the Road Safety Strategy Speed Reference Group between September and November 2018. Members of the Reference Group were in strong support of introducing lower speed limits around urban schools. Reference Group members were also supportive of 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, the Ministry of Transport undertook targeted consultation with the following organisations to receive feedback on the policy proposals: NZTA, 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, the Ministry 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:

- Police and ACC support RCAs having the ability to reduce speed limits to 30 km/h around all schools, including rural schools.
- The NZ Transport Agency supports consideration of a change in the urban default speed limit for residential access streets to 40 km/h which will 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 would also like 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.

A number of 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 (i.e. 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 have been incorporated into the proposed policy options.

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, a staggered approach to implementation is proposed.

Within the first three years of speed management plans being in place, RCAs will be required to ensure speed limits around at least 40 percent of schools in their area of responsibility comply with the new Rule. RCAs' levels of compliance with this interim target will be assessed after the first three years of speed management plans being in place.

RCAs will be required to achieve compliance with the new Rule around all schools within their area of responsibility over the 10 years of the *Road to Zero* strategy. RCAs' levels of compliance with this target will be assessed after 10 years of the first iteration of speed management plans.

Communications

Changes to speed limits around schools would be accompanied by a national engagement campaign. As outlined in Chapter 1: Section 6.1, the preferred proposals outlined in this document will require further detailed policy development over the coming months. During public consultation on the draft Rule change the public will have further opportunity to comment on these proposals.

Legislative changes

If the recommended options are implemented, amendments would be made to the Land Transport Rule: Setting of Speed Limits 2017. These changes are expected to come into effect by late 2020. Amendments to the Speed Management Guide would follow.

Operation and enforcement

The NZTA would have oversight of whether speed limits around schools were being planned for and implemented. In reviewing Regional Speed Management Plans, NZTA would ensure these speed limit changes were prioritised.

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 10 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 the *Road to Zero* Strategy, due to be released in late 2019. All action plan items are intended to support reductions in the number of DSIs. As part of the *Road to Zero* Strategy, key measures for this proposal that will be monitored include:

- Percentage of urban schools with 30-40 km/h speed limits.
- Percentage of rural schools with 60 km/h speed limits or lower.
- Perceived safety of walking and cycling.

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 Speed Management Plans. NZTA would be responsible for monitoring that RCAs implement their Speed Management Plans.

7.2 When and how will the new arrangements be reviewed?

NZTA and RCAs would have responsibility for developing, consulting on and implementing Speed Management Plans 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 NZTA and RCAs.

NZTA 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 (i.e. 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 cameras in place and 43 mobile cameras that are owned and operated by NZ Police. In addition, there are a further 15 red light cameras owned and operated by Police or Auckland Transport, and 18 fixed safety cameras in the Waterview Tunnel that are owned by the NZTA.

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 the approach in New Zealand.

Table 3: Safety cameras and road fatalities per capita

Jurisdiction	Safety cameras per 100,000 population[14]	Road fatalities per 100,000 population (2016, 2017* and 2018** figures)[15]
Sweden	>11	2.5*
Netherlands	9.4	3.6*
France	7.5	5.2*
Victoria (Australia)	6.6	3.3**
NSW (Australia)[16]	4.7	4.6**
UK	4.2	2.8
New Zealand[17]	2.3	7.9*

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

[14] NZ Police research, November 2018 updated for additional cameras and population changes (note this does not include data on the number of cameras in NSW).

[15] IRTAD road safety annual report 2018.

[16] https://roadsafety.transport.nsw.gov.au/downloads/2017-speed-camera-review.pdf.

[17] Updated for 2019 camera numbers and population but does not include the 18 fixed cameras located in the Waterview Tunnel.

All infringement notices generated from the Police safety camera network are processed by the Police Infringement Processing System (PIPS). This system is approaching its end of life, 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.

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 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.[18]

Table 4 below summarises the areas in which there is an opportunity to explore improvements to New Zealand's approach to safety cameras. This has been informed by the approach adopted in Sweden, but is adapted for the New Zealand context.

[18] Swedish Road Adminstration (2009), *The effects of automated road safety cameras on speed and road safety*

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

	Current approach	Potential new approach
Visibility and location of cameras	Posted 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
Public messaging	Emotional messaging about road safety	Explains purpose of the cameras in the context of the broader safety system
Number of cameras and operating times	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
Threshold on cameras	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
Ownership of the network	Police own and operate the camera network	Transfer ownership and operation to the infrastructure provider (NZTA)

There is general support for a 'more visible, no surprises' approach to safety cameras. All RCAs support the roll out of additional cameras to target high risk areas on their road networks. There is particular interest in the increased use of red light and point-to-point safety cameras.

This chapter will consider options to move towards a 'highly visible, no surprises' approach to 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 will not necessarily be considered as part of this proposal. These differences include:

- higher fines for speeding (e.g. 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 a number of 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 average speed (point-to-point) 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.

2.2 Who is affected and how?

The approach to safety cameras primarily affects roads users. Safety cameras encourage motorists to travel at or below the posted speed limits. Motorists who travel at excessive speeds may be caught 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.

37 percent of those surveyed in the Ministry of Transport 2016 Public Attitudes to Road Safety Survey did not think the way safety cameras are being operated is fair. 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 approach. Police is 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 (i.e. for speed limit infringements) are out of scope for the *Tackling Unsafe Speeds* programme. The Ministry of Transport is conducting a separate piece of work 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 NZTA, NZ Police and the Ministry of Transport 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 NZTA and 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 cameras.
- Install cameras on the highest risk parts of the network where a camera placement is appropriate.

Option 2 – No investment in additional cameras, but clearly sign-posting the locations of current cameras and transferring ownership of cameras to the NZ Transport Agency

- Current 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.
- 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 the NZ Transport Agency to incorporate camera placement into the NZ Transport Agency's broader speed management planning process and to improve public perceptions about safety cameras.

Option 3 – Invest in additional cameras, install cameras on the highest risk parts of the network, clearly sign-post the locations of cameras, and transfer ownership of cameras to the NZ Transport Agency

- Invest in additional cameras.
- Install cameras on the highest risk parts of the network where a camera placement is appropriate.
- 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 the NZ Transport Agency to incorporate camera placement into the NZ Transport Agency's 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 as a result of 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 as a result of 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 (i.e. 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
Preferred interventions would ideally have support from stakeholders and members of the public, to maximise the likelihood of public buy-in.

Considerations impacting options analysis

Ownership and operation of the network

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. NZTA may be better placed to carry out this asset management function.

NZTA could also incorporate proposed safety camera investments into its broader speed management planning 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 average speed 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 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.

Options analysis – a new approach to safety cameras

	Status quo	Option 1 – Invest in additional cameras and install cameras on the highest risk parts of the network	Option 2 – No investment in additional cameras, but clearly sign-posting the locations of current cameras and transferring ownership of cameras to the NZ Transport Agency	Option 3 – Invest in additional cameras, install cameras on the highest risk parts of the network, clearly sign-post the locations of cameras, and transfer ownership of cameras to the NZ Transport Agency
Effectiveness – there is a reduction in DSIs as a result of road users travelling at safer speeds on the highest risk parts of the network	**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 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.
Effectiveness – there is a reduction in DSIs as a result of road users travelling at safer speeds across broader parts of the road network	**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 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.
Cost and speed of implementation	**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 the NZ Transport Agency.	- - 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 the NZ Transport Agency.
Ongoing compliance and administrative costs (including criminal justice system impacts)	**0**	- - As there will be a greater number of cameras in operation across the network, ongoing compliance and administrative costs will increase. Police will continue to manage the network – this approach is expected to be less efficient than NZTA. This option assumes cameras are turned on all of the time (otherwise effectiveness is likely to be lower) which could mean there are more infringements and impacts on the justice pipeline.	+ As 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 the NZ Transport Agency is also expected to reduce administrative costs over time, as the NZ Transport Agency is more suited to be an asset manager than Police.	- As there will be a greater number of cameras in operation across the network, ongoing compliance and administrative costs will increase. However, as cameras will be sign-posted, and potentially only turned on part of the time, the number of infringements is not expected to increase. Transferring ownership of cameras to the NZ Transport Agency is expected to reduce administrative costs over time, as the NZ Transport Agency is more suited to be an asset manager than Police.

Key stakeholder support and public acceptance	**0**	**- -** 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. It will be difficult to continue to expand the camera network under this approach which will limit the potential effectiveness in the long term.	**+** On balance, the public is expected to support sign-posting cameras. One of the reasons for transferring ownership of cameras to the NZ Transport Agency is to incorporate camera placement into the NZ Transport Agency's 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.	**++** This approach is expected to be view positively, as cameras will be clearly sign-posted to give motorists advanced warning. 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. This option is expected to support ongoing expansion of the camera network over time to achieve higher levels of saturation, and broader general deterrence.
Overall assessment (effectiveness criteria are weighted more heavily than key stakeholder support/public acceptance)	**0**	**0**	**-**	**+**

3.2 Which of these options is the proposed approach?

Proposed approach

The proposed approach is **Option 3** – investing in additional cameras, installing cameras on the highest risk parts of the network, clearly sign-posting the locations of cameras, and transferring ownership of the safety camera network to the NZ Transport Agency.

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 NZTA's 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 in order 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 NZTA 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 in order 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 the NZ Transport Agency 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 (i.e. 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 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.[19]

[19] Monash University Accident Research Centre's Speed Enforcement Research, Principles Learnt and Implications for Practice, 2003.

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

The broader *Road to Zero* strategy also aims to change road user behaviour and attitudes. In New Zealand, cameras are not currently viewed favourably by the public and are often seen as revenue-gathering tools. This approach provides a signal that safety cameras are primarily a speed management tool to improve safety outcomes. Without a change in ownership, this change in approach is unlikely to be seen as credible by the public.

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 NZTA could be minimised if the transfer occurs in conjunction with these IT and camera investments.

In the longer term, efficiencies are expected to result from NZTA's asset management expertise (relative to 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.

The NZ Transport Agency would require the ability to process safety camera infringements before it can manage the camera network. This project has not commenced and a separate business case process to consider options and to cost the new processing system will be 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 (i.e. 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.

Withheld under section 9(2)(f)(iv)

[redacted]

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 NZTA (NZTA and 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 NZTA taking over responsibility of the camera network

[redacted]

- 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 Speed Reference Group for the proposed approach to safety cameras, similar to the Swedish model, and the roll out of more cameras in New Zealand. There was 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.

The Ministry of Transport 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 the NZTA. 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 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. Very few submitters commented on safety cameras but those that did tended to be in support of more cameras.

The attitudes of the majority of New Zealanders align with the proposed approach. The results of the Ministry of Transport's 2016 Public Attitudes to Road Safety Survey show that:

- 63 percent agree that using speed cameras helps lower the road toll
- 73 percent agree that enforcing the speed limit helps lower the road toll
- 86 percent agree that the speed limits on the roads they normally use are about right or too high
- only 16 percent agree 'there is not much of a chance of an accident when speeding if you are careful'.[21]

[21] Ministry of Transport, *Public attitudes to road safety* survey, 2016

Many stakeholders also raised the concern that demerit points are not attached to safety camera offences in New Zealand, while they often are overseas. This could be considered in the Ministry's review of transport offences and 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 NZTA to issue infringement notices and to allow NZTA to approve new 'vehicle surveillance equipment'. New signage requirements could be set out through a 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. New cameras, if prioritised through GPS 2021, could planned for, purchased and deployed from late 2021.

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

NZTA 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 below provides an indication of how the approach to safety cameras would be rolled out. Many of these decisions would be operational decisions for NZTA and 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 would also begin in 2020, on further enhancements to PIPS and upgrades to the existing mobile cameras. These are operational requirements that will be 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 the NZ Transport Agency. 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

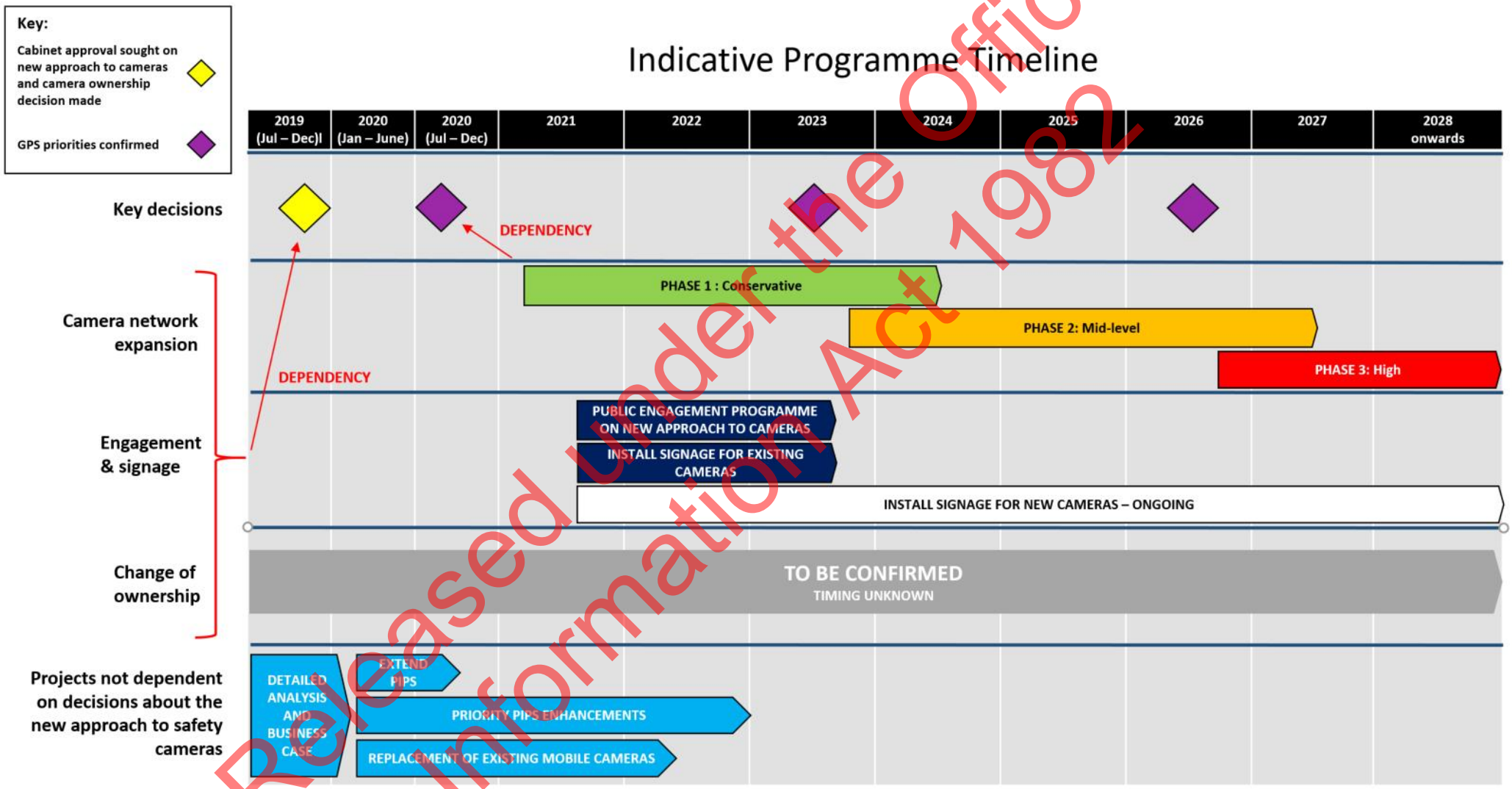
Funding for the proposals in this paper have been identified at a high level through analysis to support the *Road to Zero* strategy target and are largely expected to be funded through the National Land Transport Fund. This includes funding identified for a substantial increase in the safety camera network (including an IT platform and engagement campaign). Initial funding for the camera processing system has been costed into the current GPS 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 NZTA would help mitigate this risk, as NZTA 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. NZTA and Police would consult the Office of the Privacy Commissioner as necessary.

Figure 2: Indicative timeline for safety camera investment



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 the new *Road to Zero* Strategy, due to be released in late 2019. All action plan items are intended to support reductions in the number of DSIs.

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

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

NZTA would continue to monitor the highest risk parts of the network to determine the most appropriate locations for safety cameras. NZTA would incorporate decisions about safety camera placement into its general speed management planning.

7.2 When and how will the new arrangements be reviewed?

NZTA would review the safety camera network through each round of its National Speed Management Planning process. NZTA and Police would continue to monitor high risk parts of the network, the effectiveness of enforcement and travel speeds. This information would inform future safety camera investments. Camera locations could also be adjusted as necessary (particularly mobile camera sites) as changes to safety camera placement would not require regulatory change.

Appendix 1: Child Impact Assessment screening sheet

1. What is the proposal?
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. The Ministry's work reviewing the current system and our engagement have highlighted priority areas for change in relation to speed management. There are proposals to: • reduce speed limits around urban schools to 30 km/h (variable or permanent speed limits), with the option of implementing 40 km/h speed limits if appropriate • reduce speed limits around rural schools to a maximum of 60 km/h (variable or permanent speed limits). Schools have a high concentration of children in cars and using a variety of active modes of transport. Therefore, these proposals could have a significant impact on 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 many children are not equipped to understand and manage the associated risks. The proposals to introduce safer speed limits around schools are focused on ensuring the roading environment around schools is safer for children. More generally, this is expected to 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 also 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 in a considerable way, 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 speed management plans over the 10-year life of the *Road to Zero* strategy.
3. What are the likely impacts on Māori children of this proposal?
We do not think that there are any significant specific impacts on Māori children, as distinct from other children and young people.

Results from the 2017/18 New Zealand Health Survey (run by the Ministry of Health) show that 44.8 percent of Māori children (aged 5-14) usually use active modes of transport (walk, bike, skate or similar) to travel to and from school. This trend has remained relatively consistent since the first New Zealand Health Survey in 2006/07, and is similar to the proportion of children from other ethnicities who use active modes of transport to travel to and from school.

The biggest variation in the effectiveness of lower speed limits encouraging active mode use is expected to be across schools (depending on how they are implemented and how suitable the broader school surroundings are for active mode transport). The proportion of Māori children using active modes of transport to travel to and from school are expected 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 *2016 Public attitudes to road safety survey*, conducted by the Ministry of Transport, respondents were asked what they thought the speed limit around schools in urban areas should be. Over half (52 percent) thought the speed limit around urban schools should be 30 km/h or less. A further 42 percent gave answers between 31 and 40 km/h. The public has consistently provided similar answers over a six year period with greater than 90 percent of respondents in favour of speed limits no greater than 40 km/h around schools.

147 of the 1,666 survey respondents were between the ages of 15-24. While the proportion of children (assumed to be those aged between 15 and 17 years) in this age group is unknown, it can be assumed that the majority of children would be supportive of lower speed limits around schools (i.e. consistent with the views of the wider population).

Further consultation will occur during the rule making process for this proposal.

5. Do the impacts identified require further analysis?

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